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 120 *Pages*

Report Nbr: 54140

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06501	S13-010	B2MD89	J2L040426-1	MXGQ21AC	9MXGQ210	2346048
		B2MD89	J2L040426-1	MXGQ22AA	9MXGQ220	2354040
		B2MDB2	J2L040426-10	MXGRC1AA	9MXGRC10	2346039
	S13-010	B2MDB3	J2L040426-11	MXGRD1AA	9MXGRD10	2346039
		B2MDB4	J2L040426-12	MXGRE1AA	9MXGRE10	2346051
		B2MDB5	J2L040426-13	MXGRF1AA	9MXGRF10	2346051
		B2MDB6	J2L040426-14	MXGRG1AA	9MXGRG10	2346051
		B2MDB7	J2L040426-15	MXGRH1AA	9MXGRH10	2346043
		B2MDB8	J2L040426-16	MXGRJ1AA	9MXGRJ10	2346043
		B2MDB9	J2L040426-17	MXGRK1AA	9MXGRK10	2346043
		B2MDC0	J2L040426-18	MXGRL1AA	9MXGRL10	2346040
		B2MDC1	J2L040426-19	MXGRM1A	9MXGRM10	2346040
		B2MD90	J2L040426-2	MXGQ31AC	9MXGQ310	2346048
		B2MD90	J2L040426-2	MXGQ32AA	9MXGQ320	2354040
		B2MDC2	J2L040426-20	MXGRN1AA	9MXGRN10	2346040

Comments:

MARCH 8, 2013

REVISION 1

AMENDED DATA

Report Nbr: 54140

SDG Nbr	ORDER Nbr	CLIENT ID NUMBER	LOT Nbr	WORK ORDER	RPT DB ID	BATCH
W06501	S13-010	B2MD91	J2L040426-3	MXGQ41AC	9MXGQ410	2346048
		B2MD91	J2L040426-3	MXGQ42AA	9MXGQ420	3002062
		B2MD92	J2L040426-4	MXGQ51AA	9MXGQ510	2346041
		B2MD93	J2L040426-5	MXGQ61AA	9MXGQ610	2346041
		B2MD94	J2L040426-6	MXGQ71AA	9MXGQ710	2346041
		B2MD99	J2L040426-7	MXGQ82AA	9MXGQ820	2346052
		B2MDB0	J2L040426-8	MXGQ91AA	9MXGQ910	2346052
		B2MDB1	J2L040426-9	MXGRA1AA	9MXGRA10	2346039

Comments:

MARCH 8, 2013

REVISION 1

AMENDED DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Amended Certificate of Analysis

TestAmerica Laboratories, Inc.

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

January 7, 2013

Attention: Scot Fitzgerald

SAF Number	:	S13-010
Date SDG Closed	:	December 3, 2012
Number of Samples	:	Twenty (20)
Sample Type	:	Water
SDG Number	:	W06501
Data Deliverable	:	30-Day / Summary

AMENDED CASE NARRATIVE

I. Introduction

On December 3, 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:

CH2M ID#	TARL ID#	DATE OF RECEIPT	MATRIX
B2MD89	MXGQ	12/03/12	WATER
B2MD90	MXGQ3	12/03/12	WATER
B2MD91	MXGQ4	12/03/12	WATER
B2MD92	MXGQ5	12/03/12	WATER
B2MD93	MXGQ6	12/03/12	WATER
B2MD94	MXGQ7	12/03/12	WATER
B2MD99	MXGQ8	12/03/12	WATER
B2MDB0	MXGQ9	12/03/12	WATER
B2MDB1	MXGRA	12/03/12	WATER
B2MDB2	MXGRC	12/03/12	WATER
B2MDB3	MXGRD	12/03/12	WATER
B2MDB4	MXGRE	12/03/12	WATER
BEMDB5	MXGRF	12/03/12	WATER
B2MDB6	MXGRG	12/03/12	WATER
B2MDB7	MXGRH	12/03/12	WATER

2800 George Washington Way Richland, WA 99354 **tel** 509.375.3131 **fax** 509.375.5590 **www.testamericainc.com**

January 7, 2013

CH2M ID#	TARL ID#	DATE OF RECEIPT	MATRIX
B2MDB8	MXGRJ	12/03/12	WATER
B2MDB9	MXGRK	12/03/12	WATER
B2MDC0	MXGRL	12/03/12	WATER
B2MDC1	MXGRM	12/03/12	WATER
B2MDC2	MXGRN	12/03/12	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 TARL 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:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-002
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
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
Laser Induced Phosphorimetry
Total Uranium by method RL-KPA-003

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

January 7, 2013

Alpha Spectroscopy

Plutonium-238, -239/240 by method RL-ALP-002:

The LCS, batch blank, sample sand sample duplicate (B2MDB1) results are within contractual requirements.

Gas Proportional Counting

Gross Alpha by method RL-GPC-001:

The LCS was not within the acceptance limits in the original batch. The batch was reanalyzed for acceptable results. Samples B2MD89, B2MD90 and B2MD90 DUP were analyzed with reduced aliquots based on weight screen results. Sample B2MD91 was inadvertently not reanalyzed in batch 2354040 but was analyzed in batch 3002062 for an acceptable result. Sample B2MD91 was analyzed with a reduced aliquot based on the weight screen result. Except as noted, the LCS, batch blank, samples and sample duplicate (B2MD90) results are within contractual requirements.

Gross Beta by method RL-GPC-001:

Sample B2MD89 and B2MD89 DUP were analyzed with reduced aliquots based on weight screen results. Except as noted, the LCS, batch blank, samples and sample duplicate (B2MD89) results are within contractual requirements.

Strontium-90 by method RL-GPC-003:

The LCS, batch blank, samples and sample duplicate (B2MD84) results are within contractual requirements.

Gamma Spectroscopy

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

Sample B2MD99 and the sample duplicate (B2MD99 DUP) agreement is not within the acceptance limits in the original count. They were recounted for an acceptable result. Except as noted; the LCS, batch blank, samples and sample duplicate (B2MD99) results are within contractual requirements.

Liquid Scintillation Counting

Carbon-14 by method RL-LSC-008:

The LCS, batch blank, samples and sample duplicate (B2MD92) results are within contractual requirements.

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

The LCS, batch blank, samples, sample duplicate (B2MDB7) and sample matrix spike (B2MDB8) results are within contractual requirements.

Total Uranium

Total Uranium by method RL-KPA-003:

The batch blank result is greater than 2 times the RDL and 5 times the MDC. The results are flagged with a B qualifier. Except as noted; the LCS, batch blank, samples, sample duplicate (B2MDC0) and sample matrix spike (B2MDC1) results are within contractual requirements.

January 7, 2013

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

Reviewed and approved:

for

Sandra Seger
Project Manager

Problem and Discrepancy Report

TARL

SDG W06501

1/9/2013

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1. The data package has the following issues:

a) QC blank report, uranium, page 14, analyte detected in blank at level greater than 2X RDL and 5X MDC. Should be discussed in narrative and results should be B qualified.

Resolution: *Provide correction.*

Lab Response: **The batch blank result was discussed in the case narrative and the results were B qualified.**

Please correct the issues and resubmit the hard copy data package.

Provide a resolution to each issue noted on the report

Page **1** of **1**

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 = 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/?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) ***u_c – Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or 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*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by 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
rptGeneralInfo v3.72

3/8/2013 12:31:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 54140 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.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:
9MXGQ210	B2MD89		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346048	BETA	12587-47-2	3.78E+01	pCi/L	2.8E+00	5.6E+00		2.66E+00	100.0	9310_ALPHABETA	1.47E-01	L	12/17/2012 19:16	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGQ220	B2MD89		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2354040	ALPHA	12587-46-1	1.94E+01	pCi/L	2.7E+00	5.5E+00		1.67E+00	100.0	9310_ALPHABETA	1.499E-01	L	12/27/2012 17:10	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:
9MXGQ310	B2MD90		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346048	BETA	12587-47-2	3.96E+01	pCi/L	2.4E+00	5.6E+00		2.07E+00	100.0	9310_ALPHABETA	1.987E-01	L	12/17/2012 19:16	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGQ320	B2MD90		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2354040	ALPHA	12587-46-1	1.72E+01	pCi/L	2.7E+00	5.1E+00		2.44E+00	100.0	9310_ALPHABETA	1.491E-01	L	12/27/2012 17:10	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:
9MXGQ410	B2MD91		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346048	BETA	12587-47-2	3.51E+01	pCi/L	2.3E+00	5.0E+00		2.14E+00	100.0	9310_ALPHABETA	1.982E-01	L	12/17/2012 19:17	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGQ420	B2MD91		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
3002062	ALPHA	12587-46-1	1.79E+01	pCi/L	2.7E+00	5.3E+00		2.31E+00	100.0	9310_ALPHABETA	1.40E-01	L	01/03/2013 18:05	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:
9MXGQ510	B2MD92		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346041	C-14	14762-75-5	4.69E+02	pCi/L	1.6E+01	4.2E+01		1.68E+01	100.0	C14_LSC	7.57E-02	L	12/28/2012 20:59	I

TestAmerica

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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

MARCH 8, 2013

REVISION 1

AMENDED DATA

3/8/2013 12:31:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R FormatType: FEAD Version: 05 Rpt Nbr: 54140 File Name: h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.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:
9MXGQ610	B2MD93		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346041	C-14	14762-75-5	4.93E+02	pCi/L	1.7E+01	4.3E+01		1.67E+01	100.0	C14_LSC	7.64E-02	L	12/28/2012 23:01	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGQ710	B2MD94		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346041	C-14	14762-75-5	4.97E+02	pCi/L	1.7E+01	4.4E+01		1.68E+01	100.0	C14_LSC	7.54E-02	L	12/29/2012 00:02	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGQ820	B2MD99		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346052	I-129	15046-84-1	4.02E+00	pCi/L	6.1E-01	6.1E-01		2.04E-01	81.4	I129LL_SEP_LEPS	3.6969E+00	L	12/28/2012 18:13	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGQ910	B2MDB0		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346052	I-129	15046-84-1	4.02E+00	pCi/L	5.5E-01	5.5E-01		2.44E-01	88.1	I129LL_SEP_LEPS	3.799E+00	L	12/19/2012 07:45	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:
9MXGRA10	B2MDB1		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346039	PU-238	13981-16-3	-1.62E-02	pCi/L	8.2E-02	8.2E-02	U	2.29E-01	95.3	PUISO_PLATE_AE	2.015E-01	L	12/19/2012 10:43	I
2346039	PU-239	PU-239/240	1.66E+01	pCi/L	1.6E+00	3.1E+00		2.40E-01	95.3	PUISO_PLATE_AE	2.015E-01	L	12/19/2012 10:43	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:
9MXGRC10	B2MDB2		MW6-SBB-A1		W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346039	PU-238	13981-16-3	-1.40E-02	pCi/L	7.1E-02	7.1E-02	U	1.98E-01	97.7	PUISO_PLATE_AE	2.005E-01	L	12/19/2012 10:43	I
2346039	PU-239	PU-239/240	1.94E+01	pCi/L	1.6E+00	3.4E+00		2.85E-01	97.7	PUISO_PLATE_AE	2.005E-01	L	12/19/2012 10:43	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).
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MARCH 8, 2013

REVISION 1

AMENDED DATA

MARCH 8, 2013

REVISION 1

AMENDED DATA

3/8/2013 12:31:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 54140 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

9MXGRD10 B2MDB3 MW6-SBB-A1 S13-010 W06501 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346039	PU-238	13981-16-3	4.46E-02	pCi/L	9.0E-02	9.0E-02	U	1.80E-01	92.4	PUISO_PLATE_AE	2.01E-01	L	12/19/2012 10:43	I
2346039	PU-239	PU-239/240	2.01E+01	pCi/L	1.9E+00	3.7E+00		2.38E-01	92.4	PUISO_PLATE_AE	2.01E-01	L	12/19/2012 10:43	I

Lab Sample Id: 9MXGRE10 Client Id: B2MDB4 Test User: Contract Nbr: MW6-SBB-A1 SAF Nbr: S13-010 Sdg Nbr: W06501 QC Type: Moisture/ Solids%*: Distilled Volume: Sample On Date: Collection Date: 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346051	SR-90	10098-97-2	2.04E+01	pCi/L	8.4E-01	3.2E+00		3.12E-01	81.5	SRISO_SEP_PRE	9.999E-01	L	12/28/2012 06:28	I

Lab Sample Id: 9MXGRF10 Client Id: B2MDB5 Test User: Contract Nbr: MW6-SBB-A1 SAF Nbr: S13-010 Sdg Nbr: W06501 QC Type: Moisture/ Solids%*: Distilled Volume: Sample On Date: Collection Date: 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346051	SR-90	10098-97-2	2.15E+01	pCi/L	8.8E-01	3.3E+00		3.43E-01	79.3	SRISO_SEP_PRE	9.993E-01	L	12/28/2012 06:28	I

Lab Sample Id: 9MXGRG10 Client Id: B2MDB6 Test User: Contract Nbr: MW6-SBB-A1 SAF Nbr: S13-010 Sdg Nbr: W06501 QC Type: Moisture/ Solids%*: Distilled Volume: Sample On Date: Collection Date: 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346051	SR-90	10098-97-2	2.12E+01	pCi/L	8.7E-01	3.3E+00		3.89E-01	78.8	SRISO_SEP_PRE	1.0009E+00	L	12/28/2012 06:23	I

Lab Sample Id: 9MXGRH10 Client Id: B2MDB7 Test User: Contract Nbr: MW6-SBB-A1 SAF Nbr: S13-010 Sdg Nbr: W06501 QC Type: Moisture/ Solids%*: Distilled Volume: Sample On Date: Collection Date: 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346043	TC-99	14133-76-7	4.22E+02	pCi/L	1.2E+01	2.8E+01		9.60E+00	100.0	TC99_ETVDSK_LS	1.254E-01	L	12/19/2012 09:17	I

Lab Sample Id: 9MXGRJ10 Client Id: B2MDB8 Test User: Contract Nbr: MW6-SBB-A1 SAF Nbr: S13-010 Sdg Nbr: W06501 QC Type: Moisture/ Solids%*: Distilled Volume: Sample On Date: Collection Date: 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346043	TC-99	14133-76-7	4.20E+02	pCi/L	1.2E+01	2.8E+01		9.63E+00	100.0	TC99_ETVDSK_LS	1.253E-01	L	12/19/2012 11:21	I

Lab Sample Id: 9MXGRK10 Client Id: B2MDB9 Test User: Contract Nbr: MW6-SBB-A1 SAF Nbr: S13-010 Sdg Nbr: W06501 QC Type: Moisture/ Solids%*: Distilled Volume: Sample On Date: Collection Date: 12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346043	TC-99	14133-76-7	4.14E+02	pCi/L	1.2E+01	2.8E+01		9.62E+00	100.0	TC99_ETVDSK_LS	1.251E-01	L	12/19/2012 13:24	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.

3/8/2013 12:31:10 PM

TestAmerica Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **Version:** 05 **Rpt Nbr:** 54140 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.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:
9MXGRL10	B2MDC0		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346040	Uranium	7440-61-1	7.23E+01	ug/L	8.5E+00	8.5E+00	B	8.32E-02		UTOT_KPA	2.52E-02	ML	12/18/2012 14:00	I

Lab Sample Id:	Client Id:	Test User	Contract Nbr	SAF Nbr	Sdg Nbr:	QC Type:	Moisture/ Solids%*:	Distilled Volume	Sample On Date:	Collection Date:
9MXGRM10	B2MDC1		MW6-SBB-A1	S13-010	W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346040	Uranium	7440-61-1	7.22E+01	ug/L	8.5E+00	8.5E+00	B	8.22E-02		UTOT_KPA	2.55E-02	ML	12/18/2012 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:
9MXGRN10	B2MDC2		MW6-SBB-A1		W06501					12/03/2012 10:00

Batch	Analyte	CAS#	Result	Unit	CntU 2S	TotU 2S	Qual	MDA	TrcYield	Method	Alq Size	Unit	Analy Date/Time	Act
2346040	Uranium	7440-61-1	7.26E+01	ug/L	8.6E+00	8.6E+00	B	8.19E-02		UTOT_KPA	2.56E-02	ML	12/18/2012 14:09	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.

MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id: MXJP01AB **Sdg/Rept Nbr:** W06501 54140 **Collection Date:** 12/03/2012 10:00

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

Moisture/Solids%*: **QC Type:** BLK **Received Date:** 12/03/2012

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
2346039	PU-238	-5.77E-03	pCi/L	7.3E-02	U	1.65E-01	98.5		PUISO_PLATE	2.007E-01	12/19/2012				D
BLK	13981-16-3			7.3E-02						L	10:44				
2346039	PU-239	5.77E-02	pCi/L	1.0E-01	U	2.04E-01	98.5		PUISO_PLATE	2.007E-01	12/19/2012				D
BLK	PU-239/240			1.0E-01						L	10:44				

TestAmerica
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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.

MARCH 8, 2013
REVISION 1
AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP11AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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
2346040	Uranium	1.13E+00	ug/L	1.2E-01	B	8.19E-02			UTOT_KPA	2.56E-02	12/18/2012				D
BLK	7440-61-1			1.2E-01						ML	14:12				

MARCH 8, 2013

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AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP21AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346041	C-14	1.48E+01	pCi/L	1.0E+01	U	1.67E+01	100.0		C14_LSC	7.59E-02	12/29/2012				D
BLK	14762-75-5			7.5E+00						L	01:03				

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.

MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP41AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346043	TC-99	4.42E+00	pCi/L	5.6E+00	U	9.60E+00	100.0		TC99_ETVDSK	1.259E-01	12/19/2012				D
BLK	14133-76-7			4.1E+00						L	14:26				

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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.

MARCH 8, 2013
REVISION 1
AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJQA1AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346048	BETA	-3.84E-01	pCi/L	1.0E+00	U	1.91E+00	100.0		9310_ALPHAB	1.962E-01	12/17/2012				D
BLK	12587-47-2			1.0E+00						L	19:17				

MARCH 8, 2013

REVISION 1

AMENDED DATA

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.

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJQF1AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346051	SR-90	-6.67E-02	pCi/L	1.7E-01	U	3.84E-01	74.6		SRISO_SEP_P	1.0011E+00	12/28/2012				D
BLK	10098-97-2			1.6E-01						L	06:23				

MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJQG1AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346052	I-129	4.43E-03	pCi/L	1.2E-01	U	2.22E-01	61.6		I129LL_SEP_L	3.8349E+00	12/19/2012				D
BLK	15046-84-1			1.2E-01						L	07:46				

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

TestAmerica Laboratories, Inc.
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REVISION 1
AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXM3W1AB	**Sdg/Rept Nbr:**	W06501	54140	**Collection Date:** 12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BLK		**Received Date:** 12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2354040	ALPHA	-3.61E-01	pCi/L	4.1E-01	U	8.50E-01	100.0		9310_ALPHAB	2.001E-01	12/27/2012				D
BLK	12587-46-1			4.0E-01						L	17:10				

MARCH 8, 2013

REVISION 1

AMENDED DATA

TestAmerica

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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).
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Friday, March 08, 2013

TestAmerica QC Blank Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXQ7W1AB	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BLK	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
3002062	ALPHA	5.50E-01	pCi/L	4.7E-01	U	7.22E-01	100.0		9310_ALPHAB	2.002E-01	01/03/2013				D
BLK	12587-46-1			4.5E-01						L	18:05				

MARCH 8, 2013

REVISION 1

AMENDED DATA

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.

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP01CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346039	PU-239	5.33E+00	pCi/L	1.3E+00		2.14E-01	89.0	4.48E+00	PUISO_PLATE	2.025E-01	12/19/2012			70	D
BS	PU-239/240			1.0E+00				119.0		L	10:44			130	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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.

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP11CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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
2346040	Uranium	3.85E+01	ug/L	4.5E+00	B	8.28E-02		3.57E+01	UTOT_KPA	2.53E-02	12/18/2012			70	D
BS	7440-61-1			4.5E+00				107.8		ML	14:19			130	

U Qual - Analyzed for, but the result is less than the Mdc or gamma scan did not identify the nuclide.
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B Qual- Analyte was found in the associated laboratory blank above the MDC.

MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP11DS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346040	Uranium	3.98E+00	ug/L	4.7E-01	B	8.32E-02		3.61E+00	UTOT_KPA	2.52E-02	12/18/2012			70	D
BS	7440-61-1			4.7E-01				110.3		ML	14:22			130	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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.

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP21CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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	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
2346041	C-14	5.07E+02	pCi/L	4.5E+01		1.69E+01	100.0	4.92E+02	C14_LSC	7.51E-02	12/29/2012			70	D
BS	14762-75-5			1.7E+01				103.1		L	02:05			130	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJP41CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346043	TC-99	4.79E+02	pCi/L	3.2E+01		9.71E+00	100.0	5.44E+02	TC99_ETVDSK	1.252E-01	12/19/2012			70	D
BS	14133-76-7			1.2E+01				88.0		L	15:28			130	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJQA1CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346048	BETA	2.02E+01	pCi/L	3.1E+00		1.86E+00	100.0	2.32E+01	9310_ALPHAB	1.975E-01	12/17/2012			70	D
BS	12587-47-2			1.7E+00				87.1		L	19:17			130	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJQF1CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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	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
2346051	SR-90	1.44E+01	pCi/L	2.3E+00		3.27E-01	75.5	1.35E+01	SRISO_SEP_P	9.999E-01	12/28/2012			70	D
BS	10098-97-2			7.2E-01				107.1		L	06:23			130	

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MARCH 8, 2013
REVISION 1
AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXJQG1CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346052	I-129	1.03E+01	pCi/L	1.3E+00		3.68E-01	70.5	9.92E+00	I129LL_SEP_L	3.9364E+00	12/19/2012			70	D
BS	15046-84-1			1.3E+00				103.5		L	11:10			130	

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MARCH 8, 2013
REVISION 1
AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXM3W1CS	**Sdg/Rept Nbr:**	W06501	54140	**Collection Date:** 12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	BS		**Received Date:** 12/03/2012

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 Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2354040	ALPHA	2.33E+01	pCi/L	6.1E+00		8.57E-01	100.0	2.27E+01	9310_ALPHAB	1.999E-01	12/27/2012			70	D
BS	12587-46-1			1.7E+00				102.6		L	17:10			130	

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MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Control Sample Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXQ7W1CS	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	NA	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	BS	**Received Date:**	12/03/2012

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

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
3002062	ALPHA	2.22E+01	pCi/L	5.6E+00		8.17E-01	100.0	2.27E+01	9310_ALPHAB	2.001E-01	01/03/2013			70	D
BS	12587-46-1			1.7E+00				97.9		L	18:05			130	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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Friday, March 08, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id: MXGQ21DR **Sdg/Rept Nbr:** W06501 54140 **Collection Date:** 12/03/2012 10:00

Client Id: B2MD89 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								AX	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346048	BETA	3.23E+01	pCi/L	5.0E+00		2.76E+00	100.0		9310_ALPHAB	1.469E-01	12/17/2012	15.6	1.5		D
DUP	12587-47-2	3.78E+01		2.7E+00						L	19:16	20.0	3		

MARCH 8, 2013

REVISION 1

AMENDED DATA

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Friday, March 08, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGQ32DR	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	B2MD90	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								AY	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2354040	ALPHA	1.82E+01	pCi/L	5.2E+00		2.06E+00	100.0		9310_ALPHAB	1.499E-01	12/27/2012	5.8	0.3		D
DUP	12587-46-1	1.72E+01		2.7E+00						L	17:10	20.0	3		

TestAmerica
rptFeadRadEdd v3.68

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MARCH 8, 2013
REVISION 1
AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGQ51CR	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	B2MD92	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								AZ	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346041	C-14	4.93E+02	pCi/L	4.4E+01		1.68E+01	100.0		C14_LSC	7.56E-02	12/28/2012	5.0	0.8		D
DUP	14762-75-5	4.69E+02		1.7E+01						L	22:00	20.0	3		

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MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGQ82CR	**Sdg/Rept Nbr:**	W06501	54140	**Collection Date:** 12/03/2012 10:00
Client Id:	B2MD99	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	DUP		**Received Date:** 12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								BA	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346052	I-129	4.25E+00	pCi/L	5.9E-01		2.79E-01	91.9		I129LL_SEP_L	3.6265E+00	12/28/2012	5.4	0.5		D
DUP	15046-84-1	4.02E+00		5.9E-01						L	18:15	20.0	3		

MARCH 8, 2013

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TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id: MXGRA1CR **Sdg/Rept Nbr:** W06501 54140 **Collection Date:** 12/03/2012 10:00

Client Id: B2MDB1 **Matrix:** WATER WATER **Sample On Date:**

Moisture/Solids%*: **QC Type:** DUP **Received Date:** 12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								BB	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346039	PU-238	5.82E-02	pCi/L	1.2E-01	U	2.50E-01	98.6		PUISO_PLATE	2.009E-01	12/19/2012	354.5	0.9		D
DUP	13981-16-3	-1.62E-02		1.2E-01						L	10:43	20.0	3		
2346039	PU-239	1.99E+01	pCi/L	3.6E+00		2.40E-01	98.6		PUISO_PLATE	2.009E-01	12/19/2012	18.2	1.3		D
DUP	PU-239/240	1.66E+01		1.8E+00						L	10:43	20.0	3		

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MARCH 8, 2013

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AMENDED DATA

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TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGRE1CR	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	B2MDB4	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								BC	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346051	SR-90	2.02E+01	pCi/L	3.1E+00		3.63E-01	80.2		SRISO_SEP_P	1.0001E+00	12/28/2012	.7	0.1		D
DUP	10098-97-2	2.04E+01		8.6E-01						L	06:28	20.0	3		

MARCH 8, 2013

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TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGRH1CR	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	B2MDB7	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								BD	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346043	TC-99	4.31E+02	pCi/L	2.9E+01		9.65E+00	100.0		TC99_ETVDSK	1.249E-01	12/19/2012	2.0	0.4		D
DUP	14133-76-7	4.22E+02		1.2E+01						L	10:19	20.0	3		

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MARCH 8, 2013
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AMENDED DATA

Friday, March 08, 2013

TestAmerica QC Duplicate Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGRL1CR	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	B2MDC0	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	DUP	**Received Date:**	12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	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
2346040	Uranium	7.18E+01	ug/L	8.5E+00	B	8.38E-02			UTOT_KPA	2.50E-02	12/18/2012	.7	0.1		D
DUP	7440-61-1	7.23E+01		8.5E+00						ML	14:03	20.0	3		

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

MARCH 8, 2013

REVISION 1

AMENDED DATA

Friday, March 08, 2013

TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGRJ1CW	**Sdg/Rept Nbr:**	W06501 54140	**Collection Date:**	12/03/2012 10:00
Client Id:	B2MDB8	**Matrix:**	WATER WATER	**Sample On Date:**	
Moisture/Solids%*:		**QC Type:**	MS	**Received Date:**	12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								BE	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346043	TC-99	2.91E+03	pCi/L	1.9E+02		9.69E+00	100.0	3.63E+03	TC99_ETVDSK	1.25E-01	12/19/2012			60	D
MS	14133-76-7			3.1E+01				80.0		L	12:22			140	

MARCH 8, 2013

REVISION 1

AMENDED DATA

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.

Friday, March 08, 2013

TestAmerica Qc Matrix Spike Report

Lab Code: TARL

FormNbr: R **FormatType:** FEAD **VersionNbr:** 05 **File Name:** h:\Reportdb\edd\FeadIV\Rad\W06501.Edd, h:\Reportdb\edd\FeadIV\Rad\54140.Ed

Lab Sample Id:	MXGRM1CW	**Sdg/Rept Nbr:**	W06501	54140	**Collection Date:** 12/03/2012 10:00
Client Id:	B2MDC1	**Matrix:**	WATER	WATER	**Sample On Date:**
Moisture/Solids%*:		**QC Type:**	**MS**		**Received Date:** 12/03/2012

SAF Nbr	Contract Nbr	Test User	Case Nbr	SAS Nbr	Suffix	Decant	Distilled Volume	File Id	FSuffix	RTyp
S13-010	MW6-SBB-A19981								BG	H

Batch # / Qc Type	Analyt/ CAS#	Result/ Orig Rst	Unit	Tot/Cnt Uncert 2S	Qu-al	MDC	Tracer Yield	Spk Conc/ %Rec	Analy Method	Aliq Size/	Date/Time Analyzed	RPD/ UCL	RER/ UCL	LCS LCL/UCL	R Typ
2346040	Uranium	3.61E+01	ug/L	1.5E+01	B	8.25E-02		3.54E+01	UTOT_KPA	2.54E-02	12/18/2012			60	D
MS	7440-61-1			1.5E+01				102.2		ML	14:07			140	

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

MARCH 8, 2013

REVISION 1

AMENDED DATA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/28/2012 3:24:23 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346039; RPUISO Pulso by ALP
SDG, Matrix: W06501; 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 Lisa Antonson **Date** 12/28/12

TestAmerica Richland
QAS_RADCALCv4.8.44

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 23416039

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 = 1.0 pCi/L

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

12/28/2012 3:54:30 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2354040; RALPHA-A Alpha by GPC-Am
SDG, Matrix: W06501; WATER

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:
NCM 10- 22509

First Level Lisa Antonson **Date** 12/28/12

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 2354010

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 = 3.0 pCi/L
See NCM #: 10-22509

Second Level Review: [signature] Date: 1/5/13

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

Clouseau
Nonconformance Memo

TestAmerica

NCM #:	10-22509		
NCM Initiated By:	Lisa Antonson	Classification:	**Anomaly**
Date Opened:	12/28/2012	Status:	**PMREVIEW**
Date Closed:		Production Area:	Environmental - Prep
		Tests:	Alpha by GPC-Am
		Lot #'s (Sample #'s):	J2L040426 (1,2), J2L190000 (40),
		QC Batches:	2354040,
Nonconformance:	LCS result out of limits		
Subcategory:	Analyte was recovered low in the LCS		

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	12/28/2012	The LCS was recovered low in the original batch, 2346045

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	12/28/2012	The batch was rerun with good results.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 12/28/2012

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

1/4/2013 2:41:37 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 3002062; RALPHA-A Alpha by GPC-Am
SDG, Matrix: W06501; WATER

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

6.0 Comments on any No response:
NCM 10-22550

First Level Thomas D McE Date 1/4/13

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 3002062

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 = 3.0 pCi/L
See NCM # 10-22550

Second Level Review: [signature] Date: 4/5/13

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

Clouseau Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-22550**
NCM Initiated By: Tom Mcginnis
Date Opened: 01/04/2013
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Alpha by GPC-Am
Lot #'s (Sample #'s): J2L040426 (3), J3A020000 (62),
QC Batches: 3002062,

Nonconformance: Batch Result Out of Limits
Subcategory: LCS result outside acceptance limits

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	01/04/2013	Batch 3002062 is the reanalysis of sample J2L040426-3 from original batch 2346045 due to low LCS recovery. Batch results meet acceptance criteria.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	01/04/2013	The PM was notified of the batch deficiency.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/4/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/18/2012 2:15:57 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346048; RBETA-SR Beta by GPC-Sr/Y
SDG, Matrix: W06501; 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:	

Thomas DMS

First Level _____ **Date** 12/18/12

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 2346048

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 = 4.0pCi/L

Second Level Review: [signature] Date: 12/19/12

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

12/28/2012 4:13:15 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346051; RSR85907 Sr-85/90 by GPC-7
SDG, Matrix: W06501; 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 Lisa Antonson **Date** 12/28/12

TestAmerica Richland
QAS_RADCALCv4.8.44

Page 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 2346051

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=2.0pci/L

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

12/31/2012 2:38:57 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346052; RGAMLEPS Gamma by LEPS
SDG, Matrix: W06501; 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 10-22525

First Level [signature] Date 12/31/12

TestAmerica Richland
QAS_RADCALCv4.8.44

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 23460052

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 = 0.5 pci/L
See NCM #: 10-22525

Second Level Review: Rhonda [illegible] Date: 4/2/13

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-22525
NCM Initiated By: Lisa Antonson
Date Opened: 12/31/2012
Date Closed:

Classification: Anomaly
Status: PMREVIEW
Production Area: Counting
Tests: Gamma by LEPS
Lot #'s (Sample #'s): J2L040426 (7,8), J2L110000 (52),
QC Batches: 2346052,

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	12/31/2012	dups were out in the original count of the batch. A recount brought them within limits.

Corrective Action

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

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 12/31/2012

Page 1 of 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/31/2012 2:02:12 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346041; RC14 C-14 by LSC
SDG, Matrix: W06501; 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 Lisa Antonson Date 12/31/12

TestAmerica Richland
QAS_RADCALCv4.8.44

Page 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 2346041

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 = 200 pCi/L

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

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

12/28/2012 3:31:55 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346043; RTC99 Tc-99 by LSC
SDG, Matrix: W06501; 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 Lisa Antonsen **Date** 12/28/12

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 2346043

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 pCi/L

Second Level Review: Rhonda Wfau Date: 12/31/12

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

12/24/2012 12:54:44 PM

Lot No., Due Date: J2L040426; 01/04/2013
Client, Site: 384868; PGW 615HANFORD HANFORD
QC Batch No., Method Test: 2346040; RUNAT UNat by KPA
SDG, Matrix: W06501; WATER

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

6.0 Comments on any No response:

First Level [signature] **Date** 12/24/12

TestAmerica Richland
QAS_RADCALCv4.8.44

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 2346040

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 = 0.144 ug/L

Second Level Review: [signature] Date: 12/26/12

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-675 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD89	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD89	N	W	DEC 0 3 2012	1000	1x1-L P	9310_ALPHABETA_GPC: Alpha + Beta (2) mXbQ2	6 Months	HNO3 to pH <2

J2L040426
WO6501

J2L040426

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs	B.E. Briggs	DEC 0 3 2012 1115	L. Velazquez	L. Velazquez	DAR	DEC 0 3 2012 1115
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

A-6004-842 (REV 2)

TestAmerica Laboratories, Inc.
64
MARCH 8, 2013
REVISION 1
AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-676 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD90	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD90	N	W	DEC 0 3 2012	1000	1x1-L P	9310_ALPHABETA_GPC: Alpha + Beta (2) mNGQ3	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC			DEC 0 3 2012 1145				DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

A-6004-842 (REV 2)

TestAmerica Laboratories, Inc.

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MARCH 8, 2013

REVISION 1
AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-677 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD91	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD91	N	W	DEC 0 3 2012	1000	1x1-L P	9310_ALPHABETA_GPC: Alpha + Beta (2) mXG-Q4	6 Months	HNO3 to pH <2

J2L040426
WD6501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs		DEC 0 3 2012 1145	L. Velazquez	L. Velazquez	DAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

A-6004-842 (REV 2)

TestAmerica Laboratories, Inc.

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MARCH 8, 2013

REVISION 1

AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-678 Page 1 of 1

Collector	B.E. Briggs CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	S13-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2012	**Logbook No.**	HNF-N-506 49 / 88	**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** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD92	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD92	N	W	DEC 0 3 2012	1000	2x1-L G/P	C14_LSC: C-14 (1) mXGQS	6 Months	None

J2L040426
W0650I

	Print	Sign	Date/Time		Print	Sign	Date/Time
Relinquished By B.E. Briggs CHPRC		B.E. Briggs	DEC 0 3 2012 1145	Received By		Luwaldaquez Lizzo	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

A-6004-842 (REV 2)

TestAmerica Laboratories, Inc.

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MARCH 8, 2013

REVISION 1

AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-679 Page 1 of 1

Collector	B.E. Briggs CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	S13-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2012	**Logbook No.**	HNF-N-506 49 / 88	**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** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD93	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD93	N	W	DEC 0 3 2012	1000	2x1-L G/P	C14_LSC: C-14 (1) MXGQ6	6 Months	None

J2L040426
WQ6501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs		DEC 0 3 2012 1145	[illegible]		PAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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TestAmerica Laboratories, Inc.

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AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-680 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD94	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD94	N	W	DEC 0 3 2012	1000	2x1-L G/P	C14_LSC: C-14 (1) mxGQ7	6 Months	None

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	Be Briggs		DEC 0 3 2012 1145	Lucas Velazquez	L Velazquez	TAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-685 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MD99	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MD99	N	W	DEC 0 3 2012	1000	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1) MXGQ8	6 Months	None

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs		DEC 0 3 2012 1145	Lucas Velazquez	L Velazquez	TAIR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-686 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB0	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB0	N	W	DEC 0 3 2012	1000	2x4-L G/P	I129LL_SEP_LEPS_GS_LL: I-129 (1) MXGQ9	6 Months	None

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J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	Be Briggs		DEC 0 3 2012 1145	Lucas Velazquez	TAV		DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-687 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB1	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB1	N	W	DEC 0 3 2012	1000	1x1-L G/P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2) MXGRA	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs		DEC 0 3 2012 1145	Lucas Velazquez	Lucas	TAUR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-688 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 /88	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	PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB2	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB2	N	W	DEC 0 3 2012	1000	1x1-L G/P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2) mXGRC	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs	B.E. Briggs	DEC 0 3 2012 1145	Lucas Velazquez	Lucas Velazquez	Lucas Velazquez	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-689 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB3	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB3	N	W	DEC 0 3 2012	1000	1x1-L G/P	PUISO_PLATE_AEA: Pu-238 + 239/240 (2) MXG-RD	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs	B.E. Briggs	DEC 0 3 2012 1145	Lucas Velazquez	Lucas Velazquez	Lucas Velazquez	DEC 0 3 2012 1145

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)	Disposed By	Date/Time

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REVISION 1
AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-690 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB4	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB4	N	W	DEC 0 3 2012	1000	3x1-L G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1) mXGRE	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	B.E. Briggs		DEC 0 3 2012 1145	Lucas Velazquez		TAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-691 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB5	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB5	N	W	DEC 0 3 2012	1000	3x1-L G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1) MXGRF	6 Months	HNO3 to pH <2

J2L040426
W06S01

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	Be Briggs		DEC 0 3 2012 1145	Lucas Velazquez		TALR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-692 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49 / 88	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	PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB6	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB6	N	W	DEC 0 3 2012	1000	3x1-L G/P	SRISO_SEP_PRECIP_GPC: Sr-90 (1) mXG RG	6 Months	HNO3 to pH <2

J2L040426
WD6501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC		B.E. Briggs	DEC 0 3 2012 1145	Luis Velazquez			DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

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AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-693 Page 1 of 1

Collector	B.E. Briggs CHPRC	**Contact/Requester**	Karen Waters-Husted	**Telephone No.**	376-4650
SAF No.	S13-010	**Sampling Origin**	Hanford Site	**Purchase Order/Charge Code**	300071ES20
Project Title	SURV, OCTOBER 2012	**Logbook No.**	HNF-N-506 49/88	**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** **PRIORITY**	**Offsite Property No.**	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB7	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB7	N	W	DEC 0 3 2012	1000	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) mXGRH	6 Months	HCl to pH <2

J2J040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC		B.E. Briggs	DEC 0 3 2012 1145		Lucas Velazquez	PAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

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TestAmerica Laboratories, Inc.

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MARCH 8, 2013

REVISION 1

AMENDED DATA

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REVISION 1
AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-694 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB8	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB8	N	W	DEC 0 3 2012	1000	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) mXtRJ	6 Months	HCl to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	BeBriggs		DEC 0 3 2012 1145	Lucas Velazquez	Lugo	TAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-695
		Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDB9	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDB9	N	W	DEC 0 3 2012	1000	1x500-mL P	TC99_ETVDSK_LSC: Tc-99 (1) mXGRK	6 Months	HCl to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC		B.E. Briggs	DEC 0 3 2012 1145	Lucas Velazquez			DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil		DS	= Drum 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

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-696 Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDC0	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDC0	N	W	DEC 0 3 2012	1000	1x500-mL G/P	UTOT_KPA: Uranium (1) mXGRL	6 Months	HNO3 to pH <2

J2 12-4-12
J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	BeBriggs		DEC 0 3 2012 1145	Lucas Velazquez		TAVR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012 A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-697
		Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDC1	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDC1	N	W	DEC 0 3 2012	1000	1x500-mL G/P	UTOT_KPA: Uranium (1) mXLRm	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC		B.E. Briggs	DEC 0 3 2012 1145			TAP	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012

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AMENDED DATA

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # S13-010-698
		Page 1 of 1

Collector	B.E. Briggs CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	376-4650
SAF No.	S13-010	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	SURV, OCTOBER 2012	Logbook No.	HNF-N-506 49/88	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 PRIORITY	Offsite Property No.	N/A

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentations that are not regulated for transportation per 49 CRF but are not releasable per DOE Order 5400 5 (1990/1993)

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

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
B2MDC2	N	W	DEC 0 3 2012	1000	1x20-mL P	Activity Scan	6 Months	None
B2MDC2	N	W	DEC 0 3 2012	1000	1x500-mL G/P	UTOT_KPA: Uranium (1) mXGRN	6 Months	HNO3 to pH <2

J2L040426
W06501

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
B.E. Briggs CHPRC	Be Briggs		DEC 0 3 2012 1145	Lucas Velazquez	LVelazquez	JAR	DEC 0 3 2012 1145
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

S	= Soil	DS	= Drum 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

PRINTED ON 10/16/2012 A-6004-842 (REV 2)

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Sample Check-in List

Date/Time Received: 12-3-12 @ ~~1095~~ 11:45 Container GM Screen Result: (Airlock) .10 Initials[LV]
RW 12/10/12 Sample GM Screen Result (Sample Receiving) .07 Initials[LV]

Client: PGW SDG #: W06501 NA [ ] SAF #: 513-010 NA [ ]

Lot Number: J2L040426

Chain of Custody # 513-010-675; 676; 677; 678; 679; 680; 685; ~~686~~ 686 JB 12-3-12; 687; 688; 689; 690; 691; 692; 693; 694; 695; 696; 697; 698

Shipping Container ID: Hand Delivery NA [RW] 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): 20
7. Containers received: 20 x vial 20; 6 x 500 mLp; 21 x Lp; 4 x 4Lp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [JB]
9. Samples have:
   _____tape
   LV custody seals
   LV hazard labels
   LV appropriate sample labels
10. Matrix:
    _____A (FLT, Wipe, Solid, Soil)
    _____S (Air, Niosh 7400)
    LV I (Water)
    _____T (Biological, Ni-63)
11. Samples:
    LV are in good condition
    _____are broken
    _____Other N/A
    _____are leaking
    _____have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [JB] No [ ] NA [ ]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 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): NA [JB]

LS-023, Rev. 15, 07/11 See over for additional information.

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15. Sample Location, Sample Collector Listed on COC? * Yes [LW] No [ ]
*For documentation only. No corrective action needed.

16. Additional Information: N/A

[ ] Client/Courier denied temperature check. [LW] Client/Courier unpack cooler.

Sample Custodian: LWe Date: 12-3-12

Client Informed on N/A by N/A Person contacted N/A

[✓] No action necessary; process as is

Project Manager [signature] Date 12/10/12

SAMPLE ID	Initial pH	Acid Amt	Final pH	SAMPLE ID	Initial pH	Acid Amt	Final pH

J2L040426 [initials] 12/10/12

LS-023, Rev. 15, 07/11

See over for additional information.

12/12/2012 9:32:29 AM

Sample Preparation/Analysis

Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

6D Pu Prp PRP004, Sep ALP002(ALP015)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346039 **WATER** **pCi/L** **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 2346039 6DSO, 2346040 DHSS, 2346041 5SS3, 2346043 FPS5, 2346045 AZS7, 2346048 BCS8, 2346051 CLTL, 2346052 BNTB,

Prep Tech: ,RichardsonB

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 MXGRA-1-AA			201.50g,in	201.50g	PUTC13214				200				
J2L040426-9-SAMP					08/28/12,pd 01/01/10,r								
12/03/2012 10:00			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -5.73E-06 uCi/Sa		Beta: 1.07E-04 uCi/Sa	
2 MXGRA-1-AC-X			200.90g,in	200.90g	PUTC13215								
J2L040426-9-DUP					08/28/12,pd 01/01/10,r								
12/03/2012 10:00			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -5.73E-06 uCi/Sa		Beta: 1.07E-04 uCi/Sa	
3 MXGRC-1-AA			200.50g,in	200.50g	PUTC13216								
J2L040426-10-SAMP					08/28/12,pd 01/01/10,r								
12/03/2012 10:00			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -1.53E-04 uCi/Sa		Beta: 2.67E-04 uCi/Sa	
4 MXGRD-1-AA			201.00g,in	201.00g	PUTC13217								
J2L040426-11-SAMP					08/28/12,pd 01/01/10,r								
12/03/2012 10:00			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: 2.16E-06 uCi/Sa		Beta: 1.60E-04 uCi/Sa	
5 MXJP0-1-AA-B			200.70g,in	200.70g	PUTC13218								
J2L110000-39-BLK					08/28/12,pd 01/01/10,r								
12/11/2012 10:15 pd			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	
6 MXJP0-1-AC-C			202.50g,in	202.50g	PUSG1141								
J2L110000-39-LCS					11/14/12,pd 01/01/10,r								
12/11/2012 10:15 pd			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	

TestAmerica Richland Wa.

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 1

ISV - Insufficient Volume for Analysis

WO Cnt: 6

Prep_SamplePrep v4.8.60

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AMENDED DATA

12/12/2012 9:32:30 AM

Sample Preparation/Analysis

6D Pu Prp PRP004, Sep ALP002(ALP015)
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120403183

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Batch: 2346039 **pCi/L**
SEQ Batch, Test: None

Prep Tech: RichardsonB

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:

Comments: MXJP0-BLK CommentsP-12-00228,P-12-00478

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

```
MXGRA1AA-SAMP Constituent List:
  PU-238      RDL:1          pCi/L    LCL:       UCL:       RPD:       PU-239     RDL:1          pCi/L    LCL:70     UCL:130    RPD:20
  Pu-242      RDL:           pCi/L    LCL:20     UCL:105    RPD:20
MXJP01AA-BLK:
  PU-238      RDL:1          pCi/L    LCL:       UCL:       RPD:       PU-239     RDL:1          pCi/L    LCL:       UCL:       RPD:
  Pu-242      RDL:           pCi/L    LCL:20     UCL:105    RPD:20
MXJP01AC-LCS:
  PU-239      RDL:1          pCi/L    LCL:70     UCL:130    RPD:20     Pu-242     RDL:           pCi/L    LCL:20     UCL:105    RPD:20

MXGRA1AA-SAMP Calc Info:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MXJP01AA-BLK:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
MXJP01AC-LCS:
    Uncert Level (#s).: 2    Decay to SaDt: Y    Blk Subt.: N    Sci.Not.: Y    ODRs: B
```


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12/28/2012 3:23:44 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/29/2011, 1/2/2013, Batch: '2346039', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346039						
AC		Rev1C	RichardsonB	12/12/2012 9:27:48		
SC			davilan	IsBatched	12/11/2012 10:21:23 AM	ICOC_RADCALC v4.8.49
SC			RichardsonB	InPrep	12/12/2012 9:27:48 AM	RL-PRP-004 REVISION 2
SC			HayesA	Prep2C	12/13/2012 5:18:20 PM	RL-PRP-010 REVISION 3
SC			HayesA	Sep1C	12/13/2012 5:18:49 PM	RL-ALP-001 REVISION 3
SC			HayesA	Sep2C	12/18/2012 2:44:46 PM	RL-ALP-016 REVISION 2
SC			ClarkR	InCnt1	12/18/2012 2:47:55 PM	RL-CI-008 REV. 2
SC			ClarkR	CalcC	12/19/2012 2:41:20 PM	RL-CI-008 REV. 2
SC			antonsonl	Rev1C	12/28/2012 3:23:37 PM	RL-DR-001 Rev 2
AC			HayesA	12/13/2012 5:18:20		
AC			HayesA	12/13/2012 5:18:49		
AC			HayesA	12/18/2012 2:44:46		
AC			ClarkR	12/18/2012 2:47:55		
AC			ClarkR	12/19/2012 2:41:20		
AC			antonsonl	12/28/2012 3:23:37		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions v4.8.44

12/27/2012 2:31:10 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2354040 **WATER** **pCi/L** **PM, Quote: SS , 57671**

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	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 MXGQ2-2-AA J2L040426-1-SAMP 12/03/2012 10:00			149.90g,in	149.90g			1.5	43.9mg	240	21A	1909	12/27 [illegible]	
			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -6.33E-05 uCi/Sa		Beta: 6.41E-05 uCi/Sa	
2 MXGQ3-2-AA J2L040426-2-SAMP 12/03/2012 10:00			149.10g,in	149.10g				39.9mg		21B			
			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -5.04E-05 uCi/Sa		Beta: 2.24E-04 uCi/Sa	
3 MXGQ3-2-AD-X J2L040426-2-DUP 12/03/2012 10:00			149.90g,in	149.90g				42.7mg		21C			
			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -5.04E-05 uCi/Sa		Beta: 2.24E-04 uCi/Sa	
4 MXM3W-1-AA-B J2L190000-40-BLK 12/19/2012 09:16 pd			200.10g,in	200.10g				0.1mg		22A			
			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	
5 MXM3W-1-AC-C J2L190000-40-LCS 12/19/2012 09:16 pd			199.90g,in	199.90g	ASD5449 09/19/12,pd 04/04/05,r			0.7mg		22B			
			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	

Comments: MXM3W-BLK CommentsS-12-00228,P-12-00579

PH < 2.0 LL 12/27/12

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

MXGQ22AA-SAMP Constituent List:

MARCH 8, 2013

REVISION 1

AMENDED DATA

12/27/2012 2:31:11 PM

Sample Preparation/Analysis

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2354040 pCi/L

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

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:

```
  ALPHA        RDL:3          pCi/L     LCL:        UCL:        RPD:
MXM3W1AA-BLK:
  ALPHA        RDL:3          pCi/L     LCL:        UCL:        RPD:
MXM3W1AC-LCS:
  Am-241       RDL:           pCi/L     LCL:70      UCL:130     RPD:20
MXGQ22AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXM3W1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXM3W1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


MARCH 8, 2013

REVISION 1

AMENDED DATA

*** RE-ANALYSIS REQUEST ***

DUE DATE ~~23~~ 1-4-13

CUSTOMER CH2MHill

ANALYSIS Alpha

MATRIX WATER

LOT NUMBER

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 2346045

NEW BATCH NUMBER 2354040

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) MXGQ21AA		Sample 150ml
2) MXGQ31AA		Sample 150ml
3) MXGQ31AD		Dup
4)		
5)		
6)		
7)		Les Recovery
8)		
9)		
10)		Low!
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048 Rev 9, 9/10

12/17/2012 4:36:03 PM

Sample Preparation/Analysis

Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346045 **WATER** **pCi/L** **PM, Quote: SS , 57671**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 2346039 6DSO, 2346040 DHSS, 2346041 5SS3, 2346043 FPS5, 2346045 AZS7, 2346048 BCS8, 2346051 CLTL, 2346052 BNTB,

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:
1 **MXGQ2-1-AA** J2L040426-1-SAMP 12/03/2012 10:00			41.50g,in	41.50g			1.5	12.9mg	240	21B	2130	12/17/12	Scr: Alpha: -6.33E-05 uCi/Sa Beta: 6.41E-05 uCi/Sa AmtRec: 1XVIAL20;1XLP #Containers: 2
2 **MXGQ3-1-AA** J2L040426-2-SAMP 12/03/2012 10:00			86.70g,in	86.70g				23.9mg		21C			Scr: Alpha: -5.04E-05 uCi/Sa Beta: 2.24E-04 uCi/Sa AmtRec: 1XVIAL20;1XLP #Containers: 2
3 **MXGQ3-1-AD-X** J2L040426-2-DUP 12/03/2012 10:00			85.80g,in	85.80g				24.4mg		22A			Scr: Alpha: -5.04E-05 uCi/Sa Beta: 2.24E-04 uCi/Sa AmtRec: 1XVIAL20;1XLP #Containers: 2
4 **MXGQ4-1-AA** J2L040426-3-SAMP 12/03/2012 10:00			69.40g,in	69.40g				16.5mg		22B			Scr: Alpha: -9.15E-05 uCi/Sa Beta: 7.47E-05 uCi/Sa AmtRec: 1XVIAL20;1XLP #Containers: 2
5 **MXJP6-1-AA-B** J2L110000-45-BLK 12/11/2012 10:15 pd			199.80g,in	199.80g				0.5mg		22C			Scr: Alpha: Beta: AmtRec: #Containers: 1
6 **MXJP6-1-AC-C** J2L110000-45-LCS 12/11/2012 10:15 pd			198.90g,in	198.90g	ASD5439 07/26/12,pd 04/04/05,r			0.8mg		22D			Scr: Alpha: Beta: AmtRec: #Containers: 1

TestAmerica Richland Wa. 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 1 ISV - Insufficient Volume for Analysis WO Cnt: 6 Prep_SamplePrep v4.8.60

MARCH 8, 2013

REVISION 1

AMENDED DATA

12/17/2012 4:36:04 PM

Sample Preparation/Analysis

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120403183,B145441330

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346045 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: LoeberL

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:

Comments: MXJP6-BLK CommentsP-12-00579,"S-12-00228 PH<2.0 Aliquots reduced due to weight screen results. LL12/17/12"

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

MXGQ21AA-SAMP Constituent List:

ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
MXJP61AA-BLK:					
ALPHA	RDL:3	pCi/L	LCL:	UCL:	RPD:
MXJP61AC-LCS:					
Am-241	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

MXGQ21AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MXJP61AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MXJP61AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.
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MARCH 8, 2013
REVISION 1
AMENDED DATA

MARCH 8, 2013 REVISION 1 AMENDED DATA

12/28/2012 3:52:18 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/29/2011, 1/2/2013, Batch: '2354040', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus		Accepting		Comments
2354040						
AC		Rev1C	NyeP	12/19/2012 10:50:42		
SC			mcginnist	IsBatched	12/19/2012 9:26:43 AM	ICOC_RADCALC v4.8.49
SC			NyeP	InPrep	12/19/2012 10:50:42 AM	RL-PRP-004 REVISION 2
SC			LoeberL	Prep2C	12/27/2012 2:49:13 PM	RL-GPC-001 REVISION 2
SC			ClarkR	InCnt1	12/27/2012 2:56:07 PM	RL-CI-006 REVISION 3
SC			DawkinsO	CalcC	12/27/2012 8:38:49 PM	RL-CI-006 REVISION 3
SC			antonsonl	Rev1C	12/28/2012 3:52:12 PM	RL-DR-001 Rev 2
AC			LoeberL	12/27/2012 2:49:13		
AC			ClarkR	12/27/2012 2:56:07		
AC			DawkinsO	12/27/2012 8:38:49		
AC			antonsonl	12/28/2012 3:52:12		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

1/3/2013 3:33:32 PM

Sample Preparation/Analysis

Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 3002062 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,RichardsonB

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 MXGQ4-2-AA J2L040426-3-SAMP 12/03/2012 10:00			140.00g,in	140.00g			1.5	41.9mg	240	21A	2005	1/3/13 OAP	
			AmtRec: 1XVIAL20;1XLP		#Containers: 2				Scr:	Alpha: -9.15E-05 uCi/Sa		Beta: 7.47E-05 uCi/Sa	
2 MXQ7W-1-AA-B J3A020000-62-BLK 01/02/2013 16:01 pd			200.20g,in	200.20g				0.0mg		21B			
			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	
3 MXQ7W-1-AC-C J3A020000-62-LCS 01/02/2013 16:01 pd			200.10g,in	200.10g	ASD5453 09/19/12,pd 04/04/05,r			0.2mg		21C			
			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta: 0	

Comments: MXQ7W-BLK CommentsP-12-00228P-12-00452,*P-12-00574*,,P-12-00478

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

MXGQ42AA-SAMP Constituent List:
  ALPHA       RDL:3          pCi/L     LCL:        UCL:        RPD:
MXQ7W1AA-BLK Constituent List:
  ALPHA       RDL:3          pCi/L     LCL:        UCL:        RPD:
MXQ7W1AC-LCS:
  Am-241      RDL:           pCi/L     LCL:70      UCL:130     RPD:20
MXGQ42AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXQ7W1AA-BLK Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXQ7W1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

22550

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 3

pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.60

MARCH 8, 2013

REVISION 1

AMENDED DATA

1/3/2013 3:33:33 PM

Sample Preparation/Analysis

AZ Gross Alpha Prp GPC001
S7 Gross Alpha by GPC using Am-241 curve
5I CLIENT: HANFORD

Balance Id:1120403183

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: WattN,RichardsonB

AnalyDueDate: 01/04/2013

Batch: 3002062 pCi/L
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:

TestAmerica Richland Wa.

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

ISV - Insufficient Volume for Analysis

WO Cnt: 3
Prep_SamplePrep v4.8.60

MARCH 8, 2013

REVISION 1
AMENDED DATA

PRIORITY

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

RE-ANALYSIS REQUEST

DUE DATE 1-4-12

CUSTOMER CH2MHILL

ANALAYSIS Alpha

MATRIX WATER

LOT NUMBER

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER ~~2354040~~ 2346045

NEW BATCH NUMBER 3002062

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)		
2)		
3)		
4) MXGQ41AA		Low LCS Recovery
5)		
6)		
7)		Sample missed on
8)		
9)		Reanalysis
10)		
11)		
12)		2354040
13)		
14)		
15)		
16)		
17)		
18)		140 ml
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048, 12/07, Rev 8

1/4/2013 2:38:08 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/5/2012, 1/9/2013, Batch: '3002062', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
3002062						
AC		**Rev1C**	**RichardsonB**	1/3/2013 6:38:46 AM		
SC			mcginnist	IsBatched	1/2/2013 4:02:51 PM	ICOC_RADCALC v4.8.49
SC			RichardsonB	InPrep	1/3/2013 6:38:46 AM	RL-PRP-004 REVISION 2
SC			WattN	Prep2C	1/3/2013 3:46:33 PM	RL-GPC-001 REVISION 2
SC			ClarkR	InCnt1	1/3/2013 3:54:31 PM	RL-CI-006 REVISION 3
SC			DawkinsO	CalcC	1/4/2013 12:38:02 AM	RL-CI-006 REVISION 3
SC			mcginnist	Rev1C	1/4/2013 2:37:57 PM	RL-DR-001 Rev 2
AC			**WattN**	1/3/2013 3:46:33 PM		
AC			**ClarkR**	1/3/2013 3:54:31 PM		
AC			**DawkinsO**	1/4/2013 12:38:02		
AC			**mcginnist**	1/4/2013 2:37:57 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

12/17/2012 4:43:45 PM

Sample Preparation/Analysis

Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

BC Gross Beta Prp GPC001
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346048 WATER pCi/L PM, Quote: SS , 57671

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

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:
1 MXGQ2-1-AC J2L040426-1-SAMP 12/03/2012 10:00			147.00g,in	147.00g	AmtRec: 1XVIAL20;1XLP	#Containers: 2	1.5	60.2mg	200	28B 12/12/2000	2056	12/17/2000	Scr: Alpha: -6.33E-05 uCi/Sa Beta: 6.41E-05 uCi/Sa
2 MXGQ2-1-AD-X J2L040426-1-DUP 12/03/2012 10:00			146.90g,in	146.90g	AmtRec: 1XVIAL20;1XLP	#Containers: 2		53.3mg		28C			Scr: Alpha: -6.33E-05 uCi/Sa Beta: 6.41E-05 uCi/Sa
3 MXGQ3-1-AC J2L040426-2-SAMP 12/03/2012 10:00			198.70g,in	198.70g	AmtRec: 1XVIAL20;1XLP	#Containers: 2		81.4mg		28D			Scr: Alpha: -5.04E-05 uCi/Sa Beta: 2.24E-04 uCi/Sa
4 MXGQ4-1-AC J2L040426-3-SAMP 12/03/2012 10:00			198.20g,in	198.20g	AmtRec: 1XVIAL20;1XLP	#Containers: 2		74.2mg		31B			Scr: Alpha: -9.15E-05 uCi/Sa Beta: 7.47E-05 uCi/Sa
5 MXJQA-1-AA-B J2L110000-48-BLK 12/11/2012 10:15 pd			196.20g,in	196.20g	AmtRec:	#Containers: 1		0.0mg		31C			Scr: Alpha: Beta:
6 MXJQA-1-AC-C J2L110000-48-LCS 12/11/2012 10:15 pd			197.50g,in	197.50g	BESB4062 11/08/12,pd 10/01/01,r AmtRec:	#Containers: 1		0.4mg		31D			Scr: Alpha: Beta:

TestAmerica Richland Wa. 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 1 ISV - Insufficient Volume for Analysis WO Cnt: 6 Prep_SamplePrep v4.8.60

MARCH 8, 2013

REVISION 1

AMENDED DATA

12/17/2012 4:43:45 PM

Sample Preparation/Analysis

Balance Id:1120403183

BC Gross Beta Prp GPC001
S8 Gross Beta by GPC using Sr/Y-90 curve
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346048 pCi/L

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: LoeberL,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:

Comments: MXJQA-BLK P-12-00579,"S-12-00228 PH<2.0 Aliquots reduced due to weight screen results. LL12/17/12"

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

MXGQ21AC-SAMP Constituent List:

BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
MXJQA1AA-BLK:					
BETA	RDL:4	pCi/L	LCL:	UCL:	RPD:
MXJQA1AC-LCS:					
Sr-90	RDL:	pCi/L	LCL:70	UCL:130	RPD:20

MXGQ21AC-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
MXJQA1AA-BLK:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
MXJQA1AC-LCS:				
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B

TestAmerica Laboratories, Inc.
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MARCH 8, 2013
REVISION 1
AMENDED DATA

12/18/2012 2:15:06 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/19/2011, 12/23/2012, Batch: '2346048', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346048						
AC		**Rev1C**	**NyeP**	12/13/2012 9:17:06		Barbara Supervised
SC			davilan	IsBatched	12/11/2012 10:21:43 AM	ICOC_RADCALC v4.8.49
SC			NyeP	InPrep	12/13/2012 9:17:06 AM	RL-PRP-004 REVISION 2
SC			RichardsonB	InPrep	12/13/2012 9:17:17 AM	RL-PRP-004 REVISION 2
SC			NyeP	Prep1C	12/13/2012 3:30:38 PM	RL-PRP-004 REVISION 2
SC			LoeberL	Prep2C	12/17/2012 4:48:11 PM	RL-GPC-001 REVISION 2
SC			DawkinsO	InCnt1	12/17/2012 5:10:00 PM	RL-CI-006 REVISION 3
SC			DawkinsO	CalcC	12/17/2012 11:10:34 PM	RL-CI-006 REVISION 3
SC			mcginnist	Rev1C	12/18/2012 2:14:37 PM	RL-DR-001 Rev 2
AC			**RichardsonB**	12/13/2012 9:17:17		Barbara Supervised
AC			**NyeP**	12/13/2012 3:30:38		Samples checked after cookdown by
AC			**LoeberL**	12/17/2012 4:48:11		
AC			**DawkinsO**	12/17/2012 5:10:00		
AC			**DawkinsO**	12/17/2012 11:10:34		
AC			**mcginnist**	12/18/2012 2:14:37		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 7

ICOCFractions v4.8.44

12/12/2012 12:56:17 PM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

AnalyDueDate: 01/04/2013

CL Sr-90 Prp/Sep GPC003(GPC004)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120413753

Pipet #: _____

Sep1 DT/Tm Tech: 1940 12/14/12 APA

Sep2 DT/Tm Tech: 1240 12/26/12 APA

Prep Tech: ,AshworthA

Batch: 2346051 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 **MXGRE-1-AA** J2L040426-12-SAMP			999.90g,in	999.90g	SRTB18175 10/23/12	88.12%	1.0"	0.7659g -0.7424g 23.5mg	100	3" 2B 2B	0822 0738 0717	12/15/lcm 12/27/lcm 12/28/lcm	
1.781/2.0211 = 0.8812													
12/03/2012 10:00			AmtRec: 1XVIAL20;3XLP		#Containers: 4					Scr:	Alpha: -3.78E-04 uCi/Sa	Beta: 4.81E-04 uCi/Sa	
2 **MXGRE-1-AC-X** J2L040426-12-DUP			1000.10g,in	1000.10g	SRTB18176 10/23/12	85.63%		0.7700g -0.7462g 23.8mg		3" 2C 2C	0859 0738 0717	12/15/lcm 12/27/lcm 12/28/lcm	
1.728/2.0179 = 0.8563													
12/03/2012 10:00			AmtRec: 1XVIAL20;3XLP		#Containers: 4					Scr:	Alpha: -3.78E-04 uCi/Sa	Beta: 4.81E-04 uCi/Sa	
3 **MXGRF-1-AA** J2L040426-13-SAMP			999.30g,in	999.30g	SRTB18177 10/23/12	84.32%		0.7697g -0.7458g 23.9mg		3" 2D 2D	0931 0738 0711	12/15/lcm 12/27/lcm 12/28/lcm	
1.694/2.0089 = 0.8432													
12/03/2012 10:00			AmtRec: 1XVIAL20;3XLP		#Containers: 4					Scr:	Alpha: -1.64E-04 uCi/Sa	Beta: 5.45E-04 uCi/Sa	
4 **MXGRG-1-AA** J2L040426-14-SAMP			1000.90g,in	1000.90g	SRTB18178 10/23/12	84.13%		0.7715g -0.7477g 23.8mg		3" 3A 3A	1003 0738 0713	12/15/lcm 12/27/lcm 12/28/lcm	
1.699/2.0195 = 0.8413													
12/03/2012 10:00			AmtRec: 1XVIAL20;3XLP		#Containers: 4					Scr:	Alpha: -1.76E-04 uCi/Sa	Beta: 4.17E-04 uCi/Sa	

TestAmerica Richland Wa.

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 1

ISV - Insufficient Volume for Analysis

WO Cnt: 4
Prep_SamplePrep v4.8.60

MARCH 8, 2013
REVISION 1
AMENDED DATA

12/12/2012 12:56:18 PM

Sample Preparation/Analysis

CL Sr-90 Prp/Sep GPC003(GPC004)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120413753
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: AshworthA

AnalyDueDate: 01/04/2013

Batch: 2346051 pCi/L
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:
5 MXJQF-1-AA-B			1001.10g,in	1001.10g	SRTB18179 10/23/12	80.99%	1.0"	0.7812g -0.7578g	100	3"	1035	12/15/12 cm	
J2L110000-51-BLK								23.4mg		3B	0738	12/27/12 cm	
										3B	0718	12/28/12 cm	
1.629/2.0114 = 0.8099													
12/11/2012 10:15 pd			AmtRec:	#Containers: 1						Scr:	Alpha:		Beta:
6 MXJQF-1-AC-C			999.90g,in	999.90g	SRSG1781 10/23/12	81.57%		0.7637g -0.7402g		3"	1106	12/15/12 cm	
J2L110000-51-LCS								23.5mg		3C	0738	12/27/12 cm	
										3C	0713	12/28/12 cm	
1.654/2.0278 = 0.8157													
12/11/2012 10:15 pd			AmtRec:	#Containers: 1						Scr:	Alpha:		Beta:

Comments: MXJQF-BLK CommentsS-12-00228,P-12-00582

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

MXGRE1AA-SAMP Constituent List:

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

MXJQF1AA-BLK:

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

MXJQF1AC-LCS:

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

MXGRE1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.
103
MARCH 8, 2013
REVISION 1
AMENDED DATA

12/12/2012 12:56:19 PM

Sample Preparation/Analysis

CL Sr-90 Prp/Sep GPC003(GPC004)
TL Sr-85 by NaI and Sr-90 by GPC 7 day ingrowth
5I CLIENT: HANFORD

Balance Id:1120413753
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: AshworthA

AnalyDueDate: 01/04/2013

Batch: 2346051 pCi/L
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:

MXJQF1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MXJQF1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.
104
MARCH 8, 2013
REVISION 1
AMENDED DATA

12/28/2012 4:12:34 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/29/2011, 1/2/2013, Batch: '2346051', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346051						
AC		Rev1C	AshworthA	12/12/2012 12:56:30		
SC			davilan	IsBatched	12/11/2012 10:21:47 AM	ICOC_RADCALC v4.8.49
SC			AshworthA	Prep1C	12/12/2012 12:56:30 PM	RL-PRP-004 REV. 2
SC			AshworthA	Sep1C	12/14/2012 7:44:25 PM	RL-GPC-003 REV. 2
SC			DawkinsO	InCnt1	12/14/2012 8:42:37 PM	RL-CI-007 REV. 2
SC			ClarkR	Cnt1C	12/15/2012 11:11:23 AM	RL-CI-007 REV. 2
SC			AshworthA	Sep2C	12/26/2012 3:04:08 PM	RL-GPC-004 REV. 2
SC			DawkinsO	InCnt2	12/26/2012 3:47:55 PM	RL-CI-006 REVISION 3
SC			ClarkR	CalcC	12/28/2012 10:02:56 AM	RL-CI-006 REVISION 3
SC			antonsonl	Rev1C	12/28/2012 4:12:27 PM	RL-DR-001 Rev 2
AC			AshworthA	12/14/2012 7:44:25		
AC			DawkinsO	12/14/2012 8:42:37		
AC			ClarkR	12/15/2012 11:11:23		
AC			AshworthA	12/26/2012 3:04:08		
AC			DawkinsO	12/26/2012 3:47:55		
AC			ClarkR	12/28/2012 10:02:56		
AC			antonsonl	12/28/2012 4:12:27		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 8

ICOCFractions v4.8.44

PGW

12/18/2012 3:07:56 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346052 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 2346039 6DSO, 2346040 DHSS, 2346041 5SS3, 2346043 FPS5, 2346045 AZS7, 2346048 BCS8, 2346051 CLTL, 2346052 BNTB,

Prep Tech: ,HoganH

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 MXGQ8-1-AA J2L040426-7-SAMP 12/03/2012 10:00			3696.90g,in AmtRec: 1XVIAL20;2X4LP	3696.90g	ITA12470 09/18/12 #Containers: 3			30.1mg	200	L4	0250	12/18/12 one Scr: Alpha: -5.72E-04 uCi/Sa	Beta: 8.62E-05 uCi/Sa
2 MXGQ8-1-AC-X J2L040426-7-DUP 12/03/2012 10:00			3626.50g,in AmtRec: 1XVIAL20;2X4LP	3626.50g	ITA12471 09/18/12 #Containers: 3			34.0mg		L5	0251	Scr: Alpha: -5.72E-04 uCi/Sa	Beta: 8.62E-05 uCi/Sa
3 MXGQ9-1-AA J2L040426-8-SAMP 12/03/2012 10:00			3799.00g,in AmtRec: 1XVIAL20;2X4LP	3799.00g	ITA12472 09/18/12 #Containers: 3			32.6mg		L4	1105	12/19/12 @ 7+ Scr: Alpha: -2.25E-04 uCi/Sa	Beta: 3.44E-04 uCi/Sa
4 MXJQG-1-AA-B J2L110000-52-BLK 12/11/2012 10:15 pd			3834.90g,in AmtRec:	3834.90g	ITA12473 09/18/12 #Containers: 1			22.8mg		L5	1106	Scr: Alpha:	Beta:
5 MXJQG-1-AC-C J2L110000-52-LCS 12/11/2012 10:15 pd			3936.40g,in AmtRec:	3936.40g	ISD1492 10/08/12 #Containers: 1			26.9mg		L4	1430	12/19/12 [illegible] Scr: Alpha:	Beta:

Comments: MXJQG-BLK CommentsP-12-00579,P-12-00228,S-12-00193,P-12-00237,P-12-00570,S-12-00139,S-12-00188,S-12-00141,P-12-00540,P-12-00569,S-12-00228,

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

MXGQ81AA-SAMP Constituent List:

TestAmerica Laboratories, Inc.
106
MARCH 8, 2013
REVISION 1
AMENDED DATA

12/18/2012 3:07:57 PM

Sample Preparation/Analysis

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346052 pCi/L
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: JorgensonD,HoganH

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:

```
  I-129        RDL:0.50E+00    pCi/L     LCL:        UCL:        RPD:
MXJQG1AA-BLK:
  I-129        RDL:0.50E+00    pCi/L     LCL:        UCL:        RPD:
MXJQG1AC-LCS:
  I-129        RDL:5           pCi/L     LCL:70      UCL:130     RPD:20
MXGQ81AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJQG1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJQG1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.

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MARCH 8, 2013

REVISION 1
AMENDED DATA

*** RE-COUNT REQUEST ***

DUE DATE 1/4/13

CUSTOMER CH2M

ANALYSIS I-129

MATRIX Water

LOT NUMBER J2640426

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 2346052

NEW BATCH NUMBER

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) MX6Q81AA		dups out
2) MX6Q81AC		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

RC-126 Rev 6, 9/10

12/28/2012 2:05:59 PM

Sample Preparation/Analysis

Balance Id:1120482733

384868. CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346052 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch. Test: None All Tests: 2346039 6DSO, 2346040 DHSS, 2346041 5SS3. 2346043 FPS5, 2346045 AZS7, 2346048 BCS8, 2346051 CLTL, 2346052 BNTB, 2354040 AZS7,

Prep Tech: ,HoganH

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 MXGQ8-1-AA J2L040426-7-SAMP			3696.90g,in	3696.90g	ITA12470 09/18/12			0.1117					
12/03/2012 10:00			AmtRec: 1XVIAL20;2X4LP		#Containers: 3				Scr:	Alpha: -5.72E-04 uCi/Sa		Beta: 8.62E-05 uCi/Sa	
2 MXGQ8-1-AC-X J2L040426-7-DUP			3626.50g,in	3626.50g	ITA12471 09/18/12			0.1149					
12/03/2012 10:00			AmtRec: 1XVIAL20;2X4LP		#Containers: 3				Scr:	Alpha: -5.72E-04 uCi/Sa		Beta: 8.62E-05 uCi/Sa	
3 MXGQ8-2-AA J2L040426-7-SAMP			3696.90g	3696.90g	ITA 12470			30.1mg	200	L5	2133	12/28/12	
12/03/2012 10:00			AmtRec: 1XVIAL20;2X4LP		#Containers: 3				Scr:	Alpha: -5.72E-04 uCi/Sa		Beta: 8.62E-05 uCi/Sa	
4 MXGQ8-2-AC-X J2L040426-7-DUP			3626.50g	3626.50g	ITA 12471			34.0		L4	2135		
12/03/2012 10:00			AmtRec: 1XVIAL20;2X4LP		#Containers: 3				Scr:	Alpha: -5.72E-04 uCi/Sa		Beta: 8.62E-05 uCi/Sa	
5 MXGQ9-1-AA J2L040426-8-SAMP			3799.00g,in	3799.00g	ITA12472 09/18/12			0.1143					
12/03/2012 10:00			AmtRec: 1XVIAL20;2X4LP		#Containers: 3				Scr:	Alpha: -2.25E-04 uCi/Sa		Beta: 3.44E-04 uCi/Sa	
6 MXJQG-1-AA-B J2L110000-52-BLK			3834.90g,in	3834.90g	ITA12473 09/18/12			0.1119					
12/11/2012 10:15 pd			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	
7 MXJQG-1-AC-C J2L110000-52-LCS			3936.40g,in	3936.40g	ISD1492 10/08/12			0.1184					
12/11/2012 10:15 pd			AmtRec:		#Containers: 1				Scr:	Alpha:		Beta:	

TestAmerica Richland Wa. 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 1 ISV - Insufficient Volume for Analysis WO Cnt: 7 ICOC v4.8.49

MARCH 8, 2013

REVISION 1

AMENDED DATA

12/28/2012 2:06:00 PM

Sample Preparation/Analysis

BN I-129 Prp/Sep GAM002
TB Gamma by LEPD
5I CLIENT: HANFORD

Balance Id:1120482733

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346052 pCi/L

SEQ Batch. Test: None

Sep2 DT/Tm Tech:

Prep Tech: JorgensonD,HoganH

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:

Comments: MXJQG-BLK CommentsP-12-00579,P-12-00228,S-12-00193,P-12-00237,P-12-00570,S-12-00139,S-12-00188,S-12-00141,P-12-00540,P-12-00569,S-12-00228,

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

MXGQ81AA-SAMP Constituent List:
  I-129       RDL:0.50E+00    pCi/L     LCL:        UCL:        RPD:
MXJQG1AA-BLK:
  I-129       RDL:0.50E+00    pCi/L     LCL:        UCL:        RPD:
MXJQG1AC-LCS:
  I-129       RDL:5           pCi/L     LCL:70      UCL:130     RPD:20

MXGQ81AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJQG1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJQG1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.
110
MARCH 8, 2013
REVISION 1
AMENDED DATA

12/31/2012 2:32:31 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/1/2012, 1/5/2013, Batch: '2346052', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346052						
AC		Rev1C	HoganH	12/12/2012 8:51:13		
SC			davilan	IsBatched	12/11/2012 10:21:50 AM	ICOC_RADCALC v4.8.49
SC			HoganH	InPrep	12/12/2012 8:51:13 AM	RL-GAM-002 REVISION 3
SC			HoganH	InPrep	12/12/2012 8:51:31 AM	RL-PRP-004 REVISION 2
SC			HoganH	InSep1	12/18/2012 7:57:15 AM	RL-GAM-002 REVISION 3
SC			ClarkR	InCnt1	12/18/2012 3:11:49 PM	RL-CI-007 REV. 2
SC			ClarkR	CalcC	12/19/2012 3:34:33 PM	RL-CI-007 REV. 2
SC			DawkinsO	InCnt1	12/28/2012 5:42:18 PM	RL-CI-007 REV. 2
SC			ClarkR	CalcC	12/31/2012 12:22:40 PM	RL-CI-007 REV. 2
SC			antonsonl	Rev1C	12/31/2012 2:32:21 PM	RL-DR-001 Rev 2
AC			HoganH	12/12/2012 8:51:31		
AC			HoganH	12/18/2012 7:57:15		
AC			ClarkR	12/18/2012 3:11:49		
AC			ClarkR	12/19/2012 3:34:33		
AC			ClarkR	12/19/2012 3:37:28		
AC			DawkinsO	12/28/2012 5:42:18		
AC			ClarkR	12/31/2012 12:22:40		
AC			antonsonl	12/31/2012 2:32:21		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 9

ICOCFractions v4.8.44

12/11/2012 10:15:50 AM

Sample Preparation/Analysis

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 01/04/2013

Batch: 2346041 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 MXGQ5-1-AA J2L040426-4-SAMP 12/03/2012 10:00	75.7g		AmtRec: 1XVIAL20;2XLP	#Containers: 3	PH>6					Scr:	Alpha: -2.11E-04 uCi/Sa		Beta: 3.23E-04 uCi/Sa
2 MXGQ5-1-AC-X J2L040426-4-DUP 12/03/2012 10:00	75.6g		AmtRec: 1XVIAL20;2XLP	#Containers: 3						Scr:	Alpha: -2.11E-04 uCi/Sa		Beta: 3.23E-04 uCi/Sa
3 MXGQ6-1-AA J2L040426-5-SAMP 12/03/2012 10:00	76.4g		AmtRec: 1XVIAL20;2XLP	#Containers: 3	PH>6					Scr:	Alpha: -9.75E-05 uCi/Sa		Beta: 2.15E-04 uCi/Sa
4 MXGQ7-1-AA J2L040426-6-SAMP 12/03/2012 10:00	75.4g		AmtRec: 1XVIAL20;2XLP	#Containers: 3	PH>6					Scr:	Alpha: -2.42E-04 uCi/Sa		Beta: 1.72E-04 uCi/Sa
5 MXJP2-1-AA-B J2L110000-41-BLK 12/11/2012 10:15 pd	75.7g 12/12/12		AmtRec:	#Containers: 1	P1200605					Scr:	Alpha:		Beta:
6 MXJP2-1-AC-C J2L110000-41-LCS 12/11/2012 10:15 pd	75.1g		AmtRec:	#Containers: 1	P-12-00605		CSB1182 Ex:1/1/13			Scr:	Alpha:		Beta:
7 MXJP2-1-AD-BN J2L110000-41-IBLK 12/11/2012 10:15 pd			AmtRec:	#Containers: 1						Scr:	Alpha:		Beta:

TestAmerica Richland Wa. 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 1 ISV - Insufficient Volume for Analysis WO Cnt: 7 ICOC v4.8.49

MARCH 8, 2013 REVISION 1

AMENDED DATA

12/11/2012 10:15:51 AM

Sample Preparation/Analysis

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 01/04/2013

Batch: 2346041 **pCi/L**
SEQ Batch, Test: None

Balance Id:
Pipet #: _____
Sep1 DT/Tm Tech:
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 | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments:
P1200605
P1200639
S1200281
P1200681

S12 00202 Carbosorb
S12 00203 Permafluor

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

MXGQ51AA-SAMP Constituent List:
C-14 RDL:2.00E+02 pCi/L LCL:70 UCL:130 RPD:20
MXJP21AA-BLK:

MXJP21AC-LCS:

MXJP21AD-IBLK:

MXGQ51AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MXJP21AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MXJP21AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MXJP21AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Richland Wa. 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 ISV - Insufficient Volume for Analysis WO Cnt: 7 ICOC v4.8.49

12/31/2012 1:57:13 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/1/2012, 1/5/2013, Batch: '2346041', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346041						
AC		Rev1C	ClarkR	12/28/2012 1:33:25		
SC			davilan	IsBatched	12/11/2012 10:21:32 AM	ICOC_RADCALC v4.8.49
SC			ClarkR	InCnt1	12/28/2012 1:33:25 PM	RL-CI-005 REV. 2
SC			ClarkR	CalcC	12/31/2012 1:31:37 PM	RL-CI-005 REV. 2
SC			antonsonl	Rev1C	12/31/2012 1:57:06 PM	RL-DR-001 Rev 2
AC			ClarkR	12/31/2012 1:31:37		
AC			antonsonl	12/31/2012 1:57:06		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 3

ICOCFractions v4.8.44

12/12/2012 9:39:30 AM

Sample Preparation/Analysis

Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

FP Tc-99 Prp/Sep LSC014
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346043 WATER pCi/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 2346039 6DSO, 2346040 DHSS, 2346041 5SS3, 2346043 FPS5, 2346045 AZS7, 2346048 BCS8, 2346051 CLTL, 2346052 BNTB,

Prep Tech: ,RichardsonB

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 MXGRH-1-AA J2L040426-15-SAMP 12/03/2012 10:00			125.40g,in AmtRec: 1XVIAL20;1X500MLP	125.40g #Containers: 2					60		Scr:	Alpha: -1.43E-06 uCi/Sa	Beta: 2.67E-05 uCi/Sa
2 MXGRH-1-AC-X J2L040426-15-DUP 12/03/2012 10:00			124.90g,in AmtRec: 1XVIAL20;1X500MLP	124.90g #Containers: 2							Scr:	Alpha: -1.43E-06 uCi/Sa	Beta: 2.67E-05 uCi/Sa
3 MXGRJ-1-AA J2L040426-16-SAMP 12/03/2012 10:00			125.30g,in AmtRec: 1XVIAL20;1X500MLP	125.30g #Containers: 2							Scr:	Alpha: 2.30E-05 uCi/Sa	Beta: -1.07E-05 uCi/Sa
4 MXGRJ-1-AC-S J2L040426-16-MS 12/03/2012 10:00			125.00g,in AmtRec: 1XVIAL20;1X500MLP	125.00g #Containers: 2	TCSG3343 11/12/12,pd 07/01/05,r						Scr:	Alpha: 2.30E-05 uCi/Sa	Beta: -1.07E-05 uCi/Sa
5 MXGRK-1-AA J2L040426-17-SAMP 12/03/2012 10:00			125.10g,in AmtRec: 1XVIAL20;1X500MLP	125.10g #Containers: 2							Scr:	Alpha: 7.21E-05 uCi/Sa	Beta: -6.94E-05 uCi/Sa
6 MXJP4-1-AA-B J2L110000-43-BLK 12/11/2012 10:15 pd			125.90g,in AmtRec:	125.90g #Containers: 1							Scr:	Alpha:	Beta:
7 MXJP4-1-AC-C J2L110000-43-LCS 12/11/2012 10:15 pd			125.20g,in AmtRec:	125.20g #Containers: 1	TCSE2684 11/01/12,pd 07/01/05,r						Scr:	Alpha:	Beta:

TestAmerica Richland Wa. 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 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.60

MARCH 8, 2013

REVISION 1

AMENDED DATA

12/12/2012 9:39:31 AM

Sample Preparation/Analysis

FP Tc-99 Prp/Sep LSC014
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 01/04/2013

Batch: 2346043 pCi/L
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:
8 MXJP4-1-AD-BN													
J2L110000-43-IBLK													
12/11/2012 10:15 pd			AmtRec:	#Containers: 1					Scr:		Alpha:		Beta:

Comments: MXJP4-BLK CommentsP-12-00228,P-12-00478

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

MXGRH1AA-SAMP Constituent List:
  Tc-99        RDL:15          pCi/L     LCL:70      UCL:130     RPD:20
MXGRJ1AC-MS:

MXJP41AA-BLK:
  Tc-99        RDL:15          pCi/L     LCL:        UCL:        RPD:
MXJP41AC-LCS:
  Tc-99        RDL:15          pCi/L     LCL:70      UCL:130     RPD:20
MXJP41AD-IBLK:
  Tc-99        RDL:15          pCi/L     LCL:        UCL:        RPD:
MXGRH1AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXGRJ1AC-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJP41AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJP41AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJP41AD-IBLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.
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MARCH 8, 2013
REVISION 1
AMENDED DATA

12/28/2012 3:27:25 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/29/2011, 1/2/2013, Batch: '2346043', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346043						
AC		Rev1C	RichardsonB	12/12/2012 9:35:12		
SC			davilan	IsBatched	12/11/2012 10:21:35 AM	ICOC_RADCALC v4.8.49
SC			RichardsonB	InPrep	12/12/2012 9:35:12 AM	RL-PRP-004 REVISION 2
SC			JorgensonD	Sep2C	12/18/2012 2:57:29 PM	RL-LSC-014 REVISION 2
SC			ClarkR	InCnt1	12/18/2012 3:20:12 PM	RL-CI-005 REV. 2
SC			DawkinsO	CalcC	12/19/2012 9:01:07 PM	RL-CI-005 REV. 2
SC			antonsonl	Rev1C	12/28/2012 3:26:50 PM	RL-DR-001 Rev 2
AC			JorgensonD	12/18/2012 2:57:29		
AC			ClarkR	12/18/2012 3:20:12		
AC			DawkinsO	12/19/2012 9:01:07		
AC			antonsonl	12/28/2012 3:26:50		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

12/13/2012 7:11:37 AM

Sample Preparation/Analysis

Balance Id:1120403183

384868, CH2M Hill Plateau Remediation Company
, Pacific Northwest National Lab

DH UNat_Laser Prp KPA001
SS Total Uranium by KPA
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/04/2013

Sep1 DT/Tm Tech:

Batch: 2346040 WATER ug/L PM, Quote: SS , 57671

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 2346039 6DSO, 2346040 DHSS, 2346041 5SS3, 2346043 FPS5, 2346045 AZS7, 2346048 BCS8, 2346051 CLTL, 2346052 BNTB,

Prep Tech: ,RichardsonB

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 MXGRL-1-AA			25.20g,in	25.20g									
J2L040426-18-SAMP													
12/03/2012 10:00			AmtRec: 1XVIAL20;1X500MLP		#Containers: 2					Scr:	Alpha: 8.28E-06 uCi/Sa		Beta: 8.54E-05 uCi/Sa
2 MXGRL-1-AC-X			25.00g,in	25.00g									
J2L040426-18-DUP													
12/03/2012 10:00			AmtRec: 1XVIAL20;1X500MLP		#Containers: 2					Scr:	Alpha: 8.28E-06 uCi/Sa		Beta: 8.54E-05 uCi/Sa
3 MXGRM-1-AA			25.50g,in	25.50g									
J2L040426-19-SAMP													
12/03/2012 10:00			AmtRec: 1XVIAL20;1X500MLP		#Containers: 2					Scr:	Alpha: -1.26E-05 uCi/Sa		Beta: -5.36E-06 uCi/Sa
4 MXGRM-1-AC-S			25.40g,in	25.40g	UNSF5656								
J2L040426-19-MS					11/27/12,pd 02/01/86,r								
12/03/2012 10:00			AmtRec: 1XVIAL20;1X500MLP		#Containers: 2					Scr:	Alpha: -1.26E-05 uCi/Sa		Beta: -5.36E-06 uCi/Sa
5 MXGRN-1-AA			25.60g,in	25.60g									
J2L040426-20-SAMP													
12/03/2012 10:00			AmtRec: 1XVIAL20;1X500MLP		#Containers: 2					Scr:	Alpha: 9.93E-05 uCi/Sa		Beta: -3.74E-05 uCi/Sa
6 MXJP1-1-AA-B			25.60g,in	25.60g									
J2L110000-40-BLK													
12/11/2012 10:15 pd			AmtRec:		#Containers: 1					Scr:	Alpha:		Beta:
7 MXJP1-1-AC-C			25.30g,in	25.30g	UNSF5655								
J2L110000-40-LCS					11/27/12,pd 02/01/86,r								
12/11/2012 10:15 pd			AmtRec:		#Containers: 1					Scr:	Alpha:		Beta:

TestAmerica Richland Wa. 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 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.60

MARCH 8, 2013

REVISION 1

AMENDED DATA

12/13/2012 7:11:39 AM

Sample Preparation/Analysis

DH UNat_Laser Prp KPA001
SS Total Uranium by KPA
5I CLIENT: HANFORD

Balance Id:1120403183
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,RichardsonB

AnalyDueDate: 01/04/2013

Batch: 2346040 ug/L
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:
8 MXJP1-1-AD-C			25.20g,in	25.20g	UNSC4972								
J2L110000-40-LCS					12/12/12,pd 02/01/86,r								
12/11/2012 10:15 pd			AmtRec:		#Containers: 1					Scr:	Alpha:		Beta:

Comments:

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

MXGRL1AA-SAMP Constituent List:
  Uranium      RDL:1.44E-01    ug/L      LCL:        UCL:        RPD:
MXGRM1AC-MS:

MXJP11AA-BLK:
  Uranium      RDL:1.44E-01    ug/L      LCL:        UCL:        RPD:
MXJP11AC-LCS:
  Uranium      RDL:0.144343    ug/L      LCL:70      UCL:130     RPD:20
MXJP11AD-LCS:
  Uranium      RDL:0.144343    ug/L      LCL:70      UCL:130     RPD:20

MXGRL1AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXGRM1AC-MS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJP11AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJP11AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
MXJP11AD-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.
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MARCH 8, 2013
REVISION 1
AMENDED DATA

12/24/2012 12:54:09 PM

ICOC Fraction Transfer/Status Report

ByDate: 12/25/2011, 12/29/2012, Batch: '2346040', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
2346040						
AC		**Rev1C**	**RichardsonB**	12/13/2012 7:07:24		
SC			davilan	IsBatched	12/11/2012 10:21:28 AM	ICOC_RADCALC v4.8.49
SC			RichardsonB	InPrep	12/13/2012 7:07:24 AM	RL-PRP-005 REVISION 2
SC			LoeberL	Prep2C	12/17/2012 3:56:26 PM	RL-KPA-001 REVISION 2
SC			liebrechtt	Rev1C	12/24/2012 12:54:00 PM	RL-DR-001 Rev 4
AC			**LoeberL**	12/17/2012 3:56:26		
AC			**liebrechtt**	12/24/2012 12:54:00		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 3

ICOCFractions v4.8.44