0098311

SAF-RC-217
100F Remaining Sites Remediation – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 7/14/11
INITIAL/DATE

COMMENTS:

SDG J01148 SAF-RC-217

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Sample Location: 100-F-45 VER SPA & OB

RECEIVED
AUG 22 2011
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

RECEIVED
JUL 2011

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 57 ***Pages***

Report No.: 47294

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

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
J01148	RC-217	J1JWL2	J1F290429-1	MKKAP1AC	9MKKAP10	1180127
		J1JWL2	J1F290429-1	MKKAP1AA	9MKKAP10	1180132
		J1JWL3	J1F290429-2	MKKAX1AC	9MKKAX10	1180127
		J1JWL3	J1F290429-2	MKKAX1AA	9MKKAX10	1180132
		J1JWL4	J1F290429-3	MKKA11AC	9MKKA110	1180127
		J1JWL4	J1F290429-3	MKKA11AA	9MKKA110	1180132
		J1JWL5	J1F290429-4	MKKA41AC	9MKKA410	1180127
		J1JWL5	J1F290429-4	MKKA41AA	9MKKA410	1180132
		J1JWL6	J1F290429-5	MKKA71AC	9MKKA710	1180127
		J1JWL6	J1F290429-5	MKKA71AA	9MKKA710	1180132
		J1JWL7	J1F290429-6	MKKCA1AC	9MKKCA10	1180127
		J1JWL7	J1F290429-6	MKKCA1AA	9MKKCA10	1180132
		J1JWL8	J1F290429-7	MKKCE1AC	9MKKCE10	1180127
		J1JWL8	J1F290429-7	MKKCE1AA	9MKKCE10	1180132
		J1JWL9	J1F290429-8	MKKCH1AC	9MKKCH10	1180127
		J1JWL9	J1F290429-8	MKKCH1AA	9MKKCH10	1180132
		J1JWM0	J1F290429-9	MKKCL1AC	9MKKCL10	1180127
		J1JWM0	J1F290429-9	MKKCL1AA	9MKKCL10	1180132
		J1JWM1	J1F290429-10	MKKCP1AC	9MKKCP10	1180127
		J1JWM1	J1F290429-10	MKKCP1AA	9MKKCP10	1180132
	RC-217	J1JWM2	J1F290429-11	MKKCT1AC	9MKKCT10	1180127
		J1JWM2	J1F290429-11	MKKCT1AA	9MKKCT10	1180132
		J1JWM3	J1F290429-12	MKKC41AC	9MKKC410	1180127
		J1JWM3	J1F290429-12	MKKC41AA	9MKKC410	1180132
		J1JWM4	J1F290429-13	MKKC81AC	9MKKC810	1180127
		J1JWM4	J1F290429-13	MKKC81AA	9MKKC810	1180132

Report No.: 47294

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

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
J01148	RC-217	J1JWM5	J1F290429-14	MKKDF1AC	9MKKDF10	1180127
		J1JWM5	J1F290429-14	MKKDF1AA	9MKKDF10	1180132
		J1JWM6	J1F290429-15	MKKDJ1AC	9MKKDJ10	1180127
		J1JWM6	J1F290429-15	MKKDJ1AA	9MKKDJ10	1180132
		J1JWM7	J1F290429-16	MKKDN1AC	9MKKDN10	1180127
		J1JWM7	J1F290429-16	MKKDN1AA	9MKKDN10	1180132
		J1JWM8	J1F290429-17	MKKDQ1AC	9MKKDQ10	1180127
		J1JWM8	J1F290429-17	MKKDQ1AA	9MKKDQ10	1180132
		J1JWM9	J1F290429-18	MKKDR1AC	9MKKDR10	1180127
		J1JWM9	J1F290429-18	MKKDR1AA	9MKKDR10	1180132

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

July 7, 2011

Attention: Joan Kessner

SAF Number	:	RC-217
Date SDG Closed	:	June 29, 2011
Number of Samples	:	Eighteen (18)
Sample Type	:	Soil
SDG Number	:	J01148
Data Deliverable	:	15-- Day / Summary

CASE NARRATIVE

I. Introduction

On June 29, 2011, eighteen soil samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1JWL2	MKKAP	SOIL	6/29/11
J1JWL3	KKAX	SOIL	6/29/11
J1JWL4	MKKA1	SOIL	6/29/11
J1JWL5	MKKA4	SOIL	6/29/11
J1JWL6	MKKA7	SOIL	6/29/11
J1JWL7	MKKCA	SOIL	6/29/11
J1JWL8	MKKCE	SOIL	6/29/11
J1JWL9	MKKCH	SOIL	6/29/11
J1JWM0	MKKCL	SOIL	6/29/11
J1JWM1	MKKCP	SOIL	6/29/11
J1JWM2	MKKCT	SOIL	6/29/11
J1JWM3	MKKC4	SOIL	6/29/11
J1JWM4	MKKC8	SOIL	6/29/11
J1JWM5	MKKDF	SOIL	6/29/11
J1JWM6	MKKDJ	SOIL	6/29/11
J1JWM7	MKKDN	SOIL	6/29/11
J1JWM8	MKKDQ	SOIL	6/29/11

Washington Closure Hanford
July 7, 2011

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1JWM9	MKKDR	SOIL	6/29/11

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001:
The CRDL was not met for some of the analytes. Except as noted; the LCS, batch blank, samples and sample duplicate (J1JWL2) results are within contractual requirements.

Chemical Analysis
Hexavalent Chromium by EPA method 7196A
The matrix spike recovered low at 59%. The post digestive matrix spike recovered at 97% and the insoluble matrix spike recovered at 101%. This implies a reducing capacity in the sample, but not enough to exhaust the more copious insoluble matrix spike. Except as noted; the LCS, batch blank, samples, sample duplicate (J1JWL2) and sample matrix spike (J1JWL2) results are within contractual requirements.

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

Washington Closure Hanford
July 7, 2011

Reviewed and approved:

Rhonda Wagar
Project Manager

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.

Sample Results Summary

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 07-Jul-11

Report No. : 47294

SDG No: J01148

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1180127 GAMMA_GS									
J1JWL2									
	MKKAP1AC	AMERICIUM 241	-3.47E-02 +- 4.4E-02	U	pCi/g		7.18E-02		
		CO-60	-7.53E-03 +- 2.2E-02	U	pCi/g		3.77E-02	5.00E-02	
		CS-137	4.74E-03 +- 2.4E-02	U	pCi/g		4.25E-02	1.00E-01	
		EU-152	3.78E-02 +- 6.7E-02	U	pCi/g		1.05E-01	1.00E-01	
		EU-154	-8.17E-03 +- 6.7E-02	U	pCi/g		1.16E-01	1.00E-01	
		EU-155	3.04E-02 +- 5.9E-02	U	pCi/g		1.01E-01	1.00E-01	
J1JWL2 DUP									
	MKKAP1AD	AMERICIUM 241	-2.48E-02 +- 6.3E-02	U	pCi/g		1.07E-01		-33.4
		CO-60	-6.20E-03 +- 2.1E-02	U	pCi/g		3.64E-02	5.00E-02	-19.4
		CS-137	8.78E-03 +- 2.1E-02	U	pCi/g		3.81E-02	1.00E-01	59.8
		EU-152	-2.37E-03 +- 5.0E-02	U	pCi/g		8.66E-02	1.00E-01	226.8
		EU-154	6.29E-04 +- 6.8E-02	U	pCi/g		1.19E-01	1.00E-01	-233.4
		EU-155	4.05E-02 +- 4.8E-02	U	pCi/g		8.27E-02	1.00E-01	28.6
J1JWL3									
	MKKAX1AC	AMERICIUM 241	-3.15E-02 +- 8.2E-02	U	pCi/g		1.35E-01		
		CO-60	-5.92E-03 +- 1.6E-02	U	pCi/g		2.69E-02	5.00E-02	
		CS-137	-9.17E-04 +- 1.7E-02	U	pCi/g		2.86E-02	1.00E-01	
		EU-152	-1.20E-02 +- 8.3E-02	U	pCi/g		7.99E-02	1.00E-01	
		EU-154	2.75E-02 +- 5.7E-02	U	pCi/g		1.03E-01	1.00E-01	
		EU-155	4.29E-04 +- 6.0E-02	U	pCi/g		9.94E-02	1.00E-01	
J1JWL4									
	MKKA11AC	AMERICIUM 241	-6.32E-03 +- 2.9E-02	U	pCi/g		4.90E-02		
		CO-60	-6.77E-03 +- 1.6E-02	U	pCi/g		2.80E-02	5.00E-02	
		CS-137	-9.93E-03 +- 1.7E-02	U	pCi/g		2.80E-02	1.00E-01	
		EU-152	-2.73E-02 +- 4.5E-02	U	pCi/g		7.49E-02	1.00E-01	
		EU-154	-9.45E-03 +- 5.6E-02	U	pCi/g		9.65E-02	1.00E-01	
		EU-155	5.98E-02 +- 4.3E-02	U	pCi/g		7.52E-02	1.00E-01	
J1JWL5									
	MKKA41AC	AMERICIUM 241	-1.92E-02 +- 9.7E-02	U	pCi/g		1.60E-01		
		CO-60	-8.98E-03 +- 1.6E-02	U	pCi/g		2.71E-02	5.00E-02	
		CS-137	1.02E-01 +- 3.1E-02		pCi/g		2.49E-02	1.00E-01	
		EU-152	1.18E-02 +- 3.5E-02	U	pCi/g		6.02E-02	1.00E-01	
		EU-154	-1.95E-03 +- 5.2E-02	U	pCi/g		8.97E-02	1.00E-01	
		EU-155	6.40E-03 +- 4.1E-02	U	pCi/g		6.96E-02	1.00E-01	
J1JWL6									
	MKKA71AC	AMERICIUM 241	-3.87E-02 +- 4.6E-02	U	pCi/g		7.42E-02		
		CO-60	-1.02E-02 +- 2.2E-02	U	pCi/g		3.81E-02	5.00E-02	

TestAmerica

rptSTLRchSaSummary2 V5.2.15 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Sample Results Summary

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 07-Jul-11

Report No. : 47294

SDG No: J01148

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1180127 GAMMA_GS									
	J1JWL6								
	MKKA71AC	CS-137	1.15E-01 +- 4.0E-02		pCi/g		4.01E-02	1.00E-01	
		EU-152	-2.82E-02 +- 7.9E-02	U	pCi/g		1.08E-01	1.00E-01	
		EU-154	2.87E-02 +- 6.7E-02	U	pCi/g		1.24E-01	1.00E-01	
		EU-155	3.33E-02 +- 6.1E-02	U	pCi/g		1.05E-01	1.00E-01	
	J1JWL7								
	MKKCA1AC	AMERICIUM 241	-5.45E-02 +- 6.7E-02	U	pCi/g		1.12E-01		
		CO-60	6.78E-03 +- 2.1E-02	U	pCi/g		3.94E-02	5.00E-02	
		CS-137	7.37E-02 +- 3.3E-02		pCi/g		3.96E-02	1.00E-01	
		EU-152	-1.84E-02 +- 5.3E-02	U	pCi/g		9.10E-02	1.00E-01	
		EU-154	-1.03E-01 +- 7.5E-02	U	pCi/g		1.14E-01	1.00E-01	
		EU-155	4.58E-02 +- 5.4E-02	U	pCi/g		9.19E-02	1.00E-01	
	J1JWL8								
	MKKCE1AC	AMERICIUM 241	-6.23E-02 +- 9.7E-02	U	pCi/g		1.59E-01		
		CO-60	-4.36E-04 +- 2.1E-02	U	pCi/g		3.64E-02	5.00E-02	
		CS-137	1.41E-02 +- 2.2E-02	U	pCi/g		3.86E-02	1.00E-01	
		EU-152	-7.88E-02 +- 1.6E-01	U	pCi/g		9.57E-02	1.00E-01	
		EU-154	-4.77E-02 +- 6.0E-02	U	pCi/g		9.90E-02	1.00E-01	
		EU-155	2.82E-02 +- 7.0E-02	U	pCi/g		1.17E-01	1.00E-01	
	J1JWL9								
	MKKCH1AC	AMERICIUM 241	-1.46E-02 +- 1.7E-01	U	pCi/g		2.89E-01		
		CO-60	-3.47E-03 +- 1.9E-02	U	pCi/g		3.25E-02	5.00E-02	
		CS-137	8.92E-02 +- 3.2E-02		pCi/g		3.03E-02	1.00E-01	
		EU-152	-3.14E-02 +- 4.8E-02	U	pCi/g		7.77E-02	1.00E-01	
		EU-154	-1.88E-02 +- 6.0E-02	U	pCi/g		1.02E-01	1.00E-01	
		EU-155	6.85E-02 +- 6.0E-02	U	pCi/g		1.02E-01	1.00E-01	
	J1JWM0								
	MKKCL1AC	AMERICIUM 241	-8.34E-03 +- 8.3E-02	U	pCi/g		1.39E-01		
		CO-60	1.67E-03 +- 1.7E-02	U	pCi/g		2.97E-02	5.00E-02	
		CS-137	1.19E-01 +- 3.0E-02		pCi/g		3.10E-02	1.00E-01	
		EU-152	2.19E-02 +- 7.6E-02	U	pCi/g		8.26E-02	1.00E-01	
		EU-154	-5.42E-02 +- 5.3E-02	U	pCi/g		8.60E-02	1.00E-01	
		EU-155	4.57E-02 +- 6.1E-02	U	pCi/g		1.02E-01	1.00E-01	
	J1JWM1								
	MKKCP1AC	AMERICIUM 241	1.96E-02 +- 6.8E-02	U	pCi/g		1.18E-01		
		CO-60	6.83E-03 +- 2.3E-02	U	pCi/g		4.26E-02	5.00E-02	
		CS-137	1.78E-02 +- 2.3E-02	U	pCi/g		4.22E-02	1.00E-01	
		EU-152	-2.06E-02 +- 5.4E-02	U	pCi/g		9.20E-02	1.00E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.15 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Sample Results Summary

Date: 07-Jul-11

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 47294 **SDG No:** J01148

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1180127 GAMMA_GS									
J1JWM1									
	MKKCP1AC	EU-154	-2.43E-02 +- 7.5E-02	U	pCi/g		1.28E-01	1.00E-01	
		EU-155	2.86E-02 +- 5.4E-02	U	pCi/g		9.12E-02	1.00E-01	
J1JWM2									
	MKKCT1AC	AMERICIUM 241	-2.05E-02 +- 4.4E-02	U	pCi/g		7.26E-02		
		CO-60	-1.60E-02 +- 1.8E-02	U	pCi/g		2.93E-02	5.00E-02	
		CS-137	2.40E-02 +- 2.6E-02	U	pCi/g		4.66E-02	1.00E-01	
		EU-152	2.85E-02 +- 6.7E-02	U	pCi/g		1.02E-01	1.00E-01	
		EU-154	-2.50E-02 +- 6.7E-02	U	pCi/g		1.15E-01	1.00E-01	
		EU-155	4.71E-02 +- 5.8E-02	U	pCi/g		1.01E-01	1.00E-01	
J1JWM3									
	MKKC41AC	AMERICIUM 241	-4.58E-02 +- 8.4E-02	U	pCi/g		1.38E-01		
		CO-60	1.31E-02 +- 1.7E-02	U	pCi/g		3.11E-02	5.00E-02	
		CS-137	3.07E-02 +- 1.9E-02	U	pCi/g		3.35E-02	1.00E-01	
		EU-152	-4.81E-02 +- 8.4E-02	U	pCi/g		8.31E-02	1.00E-01	
		EU-154	-1.59E-03 +- 5.5E-02	U	pCi/g		9.64E-02	1.00E-01	
		EU-155	2.76E-02 +- 6.2E-02	U	pCi/g		1.04E-01	1.00E-01	
J1JWM4									
	MKKC81AC	AMERICIUM 241	4.23E-02 +- 7.7E-02	U	pCi/g		1.35E-01		
		CO-60	6.82E-03 +- 2.8E-02	U	pCi/g		5.08E-02	5.00E-02	
		CS-137	3.22E-02 +- 2.6E-02	U	pCi/g		4.92E-02	1.00E-01	
		EU-152	-1.09E-02 +- 6.2E-02	U	pCi/g		1.07E-01	1.00E-01	
		EU-154	3.97E-02 +- 8.3E-02	U	pCi/g		1.51E-01	1.00E-01	
		EU-155	4.74E-02 +- 6.0E-02	U	pCi/g		1.03E-01	1.00E-01	
J1JWM5									
	MKKDF1AC	AMERICIUM 241	-3.96E-02 +- 4.6E-02	U	pCi/g		7.50E-02		
		CO-60	1.42E-02 +- 2.1E-02	U	pCi/g		3.94E-02	5.00E-02	
		CS-137	1.31E-02 +- 2.5E-02	U	pCi/g		4.41E-02	1.00E-01	
		EU-152	3.98E-03 +- 7.1E-02	U	pCi/g		1.09E-01	1.00E-01	
		EU-154	1.00E-02 +- 7.2E-02	U	pCi/g		1.28E-01	1.00E-01	
		EU-155	6.29E-02 +- 6.2E-02	U	pCi/g		1.07E-01	1.00E-01	
J1JWM6									
	MKKDJ1AC	AMERICIUM 241	-1.30E-02 +- 8.9E-02	U	pCi/g		1.49E-01		
		CO-60	1.52E-02 +- 1.7E-02	U	pCi/g		3.17E-02	5.00E-02	
		CS-137	6.69E-02 +- 2.7E-02		pCi/g		3.26E-02	1.00E-01	
		EU-152	-9.13E-03 +- 1.0E-01	U	pCi/g		9.17E-02	1.00E-01	
		EU-154	-4.40E-03 +- 5.8E-02	U	pCi/g		1.02E-01	1.00E-01	
		EU-155	-4.20E-02 +- 6.4E-02	U	pCi/g		1.04E-01	1.00E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.15 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Sample Results Summary

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 07-Jul-11

Report No. : 47294

SDG No: J01148

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1180127 GAMMA_GS									
J1JWM7									
	MKKDN1AC	AMERICIUM 241	-2.47E-02 +- 6.5E-02	U	pCi/g		1.10E-01		
		CO-60	7.01E-03 +- 2.2E-02	U	pCi/g		4.06E-02	5.00E-02	
		CS-137	1.30E-02 +- 2.3E-02	U	pCi/g		4.21E-02	1.00E-01	
		EU-152	5.27E-03 +- 5.4E-02	U	pCi/g		9.42E-02	1.00E-01	
		EU-154	-2.13E-02 +- 7.1E-02	U	pCi/g		1.21E-01	1.00E-01	
		EU-155	5.30E-02 +- 5.0E-02	U	pCi/g		8.71E-02	1.00E-01	
J1JWM8									
	MKKDQ1AC	AMERICIUM 241	-1.62E-02 +- 4.4E-02	U	pCi/g		7.26E-02		
		CO-60	1.17E-02 +- 2.2E-02	U	pCi/g		4.09E-02	5.00E-02	
		CS-137	4.47E-02 +- 3.2E-02		pCi/g		3.95E-02	1.00E-01	
		EU-152	-2.51E-02 +- 7.0E-02	U	pCi/g		1.04E-01	1.00E-01	
		EU-154	-1.80E-02 +- 7.0E-02	U	pCi/g		1.21E-01	1.00E-01	
		EU-155	7.08E-02 +- 5.9E-02	U	pCi/g		1.02E-01	1.00E-01	
J1JWM9									
	MKKDR1AC	AMERICIUM 241	-3.59E-02 +- 1.9E-01	U	pCi/g		3.12E-01		
		CO-60	-9.40E-03 +- 1.9E-02	U	pCi/g		3.14E-02	5.00E-02	
		CS-137	2.34E-02 +- 2.0E-02	U	pCi/g		3.57E-02	1.00E-01	
		EU-152	-5.16E-03 +- 5.1E-02	U	pCi/g		8.59E-02	1.00E-01	
		EU-154	-7.58E-02 +- 6.8E-02	U	pCi/g		1.09E-01	1.00E-01	
		EU-155	2.06E-02 +- 5.8E-02	U	pCi/g		9.99E-02	1.00E-01	
1180132 7196_CR6									
J1JWL2									
	MKKAP1AA	HEXCHROME	2.74E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	MKKAP1AF	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	3.50E-01	55.5
J1JWL3									
	MKKAX1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1JWL4									
	MKKA11AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1JWL5									
	MKKA41AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1JWL6									
	MKKA71AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1JWL7									
	MKKCA1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1JWL8									
	MKKCE1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1JWL9									

TestAmerica

rptSTLRchSaSummary2 V5.2.15 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

Sample Results Summary

TestAmerica TARL

Ordered by Method, Batch No., Client Sample ID.

Date: 07-Jul-11

Report No. : 47294

SDG No: J01148

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1180132	7196_CR6								
	J1JWL9								
	MKKCH1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM0								
	MKKCL1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM1								
	MKKCP1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM2								
	MKKCT1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM3								
	MKKC41AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM4								
	MKKC81AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM5								
	MKKDF1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM6								
	MKKDJ1AA	HEXCHROME	2.31E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM7								
	MKKDN1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM8								
	MKKDQ1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
	J1JWM9								
	MKKDR1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	

No. of Results: 133

TestAmerica

rptSTLRchSaSummary2 V5.2.15 A2002

RPD - Relative Percent Difference.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 07-Jul-11

Report No. : 47294

SDG No.: J01148

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
GAMMA_GS								
1180127 BLANK QC,								
MKKKP1AA	AMERICIUM 241	-1.89E-02 +- 4.6E-02	U	pCi/g				7.79E-02
	CO-60	-1.29E-02 +- 1.2E-02	U	pCi/g				1.80E-02
	CS-137	-8.53E-03 +- 1.1E-02	U	pCi/g				1.81E-02
	EU-152	-2.80E-02 +- 3.2E-02	U	pCi/g				4.99E-02
	EU-154	-8.32E-04 +- 2.9E-02	U	pCi/g				5.33E-02
	EU-155	-6.81E-03 +- 3.2E-02	U	pCi/g				5.38E-02
1180127 LCS,								
MKKKP1AC	CS-137	1.12E+00 +- 1.5E-01		pCi/g		104%	0.0	3.85E-02
7196_CR6								
1180132 MATRIX SPIKE, J1JWL2								
MKKAP1AE	HEXCHROME	5.90E+00 +- 0.0E+00		mg/kg	N/A	59%	-0.4	1.55E-01
1180132 LCS,								
MKKL91AC	HEXCHROME	1.83E+01 +- 0.0E+00		mg/kg	N/A	92%	-0.1	1.55E-01
1180132 BLANK QC,								
MKKL91AB	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01

No. of Results: 10

TestAmerica

rptSTLRchQcSummary V5.2.15
A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 9:45:00 AM
Lot-Sample No.:	J1F290429-1	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL2	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKAP1AC		Report DB ID:	9MKKAP10				
AMERICIUM 241	***-3.47E-02***	U	4.4E-02	4.4E-02	7.18E-02	pCi/g		*-0.48*	7/1/11 02:50 a		368.4	GER14$1
								-(1.6)			g	
CO-60	***-7.53E-03***	U	2.2E-02	2.2E-02	3.77E-02	pCi/g		*-0.2*	7/1/11 02:50 a		368.4	GER14$1
							5.00E-02	*-0.69*			g	
CS-137	***4.74E-03***	U	2.4E-02	2.4E-02	4.25E-02	pCi/g		*0.11*	7/1/11 02:50 a		368.4	GER14$1
							1.00E-01	*0.39*			g	
EU-152	***3.78E-02***	U	6.7E-02	6.7E-02	1.05E-01	pCi/g		*0.36*	7/1/11 02:50 a		368.4	GER14$1
							1.00E-01	*(1.1)*			g	
EU-154	***-8.17E-03***	U	6.7E-02	6.7E-02	1.16E-01	pCi/g		*-0.07*	7/1/11 02:50 a		368.4	GER14$1
							1.00E-01	*-0.25*			g	
EU-155	***3.04E-02***	U	5.9E-02	5.9E-02	1.01E-01	pCi/g		*0.3*	7/1/11 02:50 a		368.4	GER14$1
							1.00E-01	*(1.)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKAP1AA		Report DB ID:	9MKKAP10				
HEXCHROME	***2.74E-01***			0.0E+00	1.55E-01	mg/kg	N/A	*(1.8)*	7/5/11 09:00 a		2.5173	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 9:50:00 AM
Lot-Sample No.:	J1F290429-2	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL3	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKAX1AC		Report DB ID: 9MKKAX10					
AMERICIUM 241	***-3.15E-02***	U	8.2E-02	8.2E-02	1.35E-01	pCi/g		*-0.23*	7/1/11 02:51 a		392.4	GER10$1
								-0.77			g	
CO-60	***-5.92E-03***	U	1.6E-02	1.6E-02	2.69E-02	pCi/g		*-0.22*	7/1/11 02:51 a		392.4	GER10$1
							5.00E-02	*-0.76*			g	
CS-137	***-9.17E-04***	U	1.7E-02	1.7E-02	2.86E-02	pCi/g		*-0.03*	7/1/11 02:51 a		392.4	GER10$1
							1.00E-01	*-0.11*			g	
EU-152	***-1.20E-02***	U	8.3E-02	8.3E-02	7.99E-02	pCi/g		*-0.15*	7/1/11 02:51 a		392.4	GER10$1
							1.00E-01	*-0.29*			g	
EU-154	***2.75E-02***	U	5.7E-02	5.7E-02	1.03E-01	pCi/g		*0.27*	7/1/11 02:51 a		392.4	GER10$1
							1.00E-01	*0.96*			g	
EU-155	***4.29E-04***	U	6.0E-02	6.0E-02	9.94E-02	pCi/g		*0.*	7/1/11 02:51 a		392.4	GER10$1
							1.00E-01	*0.01*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKAX1AA		Report DB ID: 9MKKAX10					
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5057	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 9:55:00 AM
Lot-Sample No.:	J1F290429-3	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL4	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKA11AC		Report DB ID:	9MKKA110				
AMERICIUM 241	***-6.32E-03***	U	2.9E-02	2.9E-02	4.90E-02	pCi/g		*-0.13*	7/1/11 06:14 a		406.0	GER15$1
								-0.43			g	
CO-60	***-6.77E-03***	U	1.6E-02	1.6E-02	2.80E-02	pCi/g		*-0.24*	7/1/11 06:14 a		406.0	GER15$1
							5.00E-02	*-0.84*			g	
CS-137	***-9.93E-03***	U	1.7E-02	1.7E-02	2.80E-02	pCi/g		*-0.35*	7/1/11 06:14 a		406.0	GER15$1
							1.00E-01	*-(1.2)*			g	
EU-152	***-2.73E-02***	U	4.5E-02	4.5E-02	7.49E-02	pCi/g		*-0.36*	7/1/11 06:14 a		406.0	GER15$1
							1.00E-01	*-(1.2)*			g	
EU-154	***-9.45E-03***	U	5.6E-02	5.6E-02	9.65E-02	pCi/g		*-0.1*	7/1/11 06:14 a		406.0	GER15$1
							1.00E-01	*-0.34*			g	
EU-155	***5.98E-02***	U	4.3E-02	4.3E-02	7.52E-02	pCi/g		*0.8*	7/1/11 06:14 a		406.0	GER15$1
							1.00E-01	*(2.8)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKA11AA		Report DB ID:	9MKKA110				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5163	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	**SDG:**	J01148	**Collection Date:**	6/28/2011 10:00:00 AM
Lot-Sample No.:	J1F290429-4	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL5	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKA41AC		**Report DB ID:**	9MKKA410				
AMERICIUM 241	***-1.92E-02***	U	9.7E-02	9.7E-02	1.60E-01	pCi/g		*-0.12*	7/1/11 06:14 a		349.5	GER11$1
								-0.4			g	
CO-60	***-8.98E-03***	U	1.6E-02	1.6E-02	2.71E-02	pCi/g		*-0.33*	7/1/11 06:14 a		349.5	GER11$1
							5.00E-02	*-(1.1)*			g	
CS-137	***1.02E-01***		3.1E-02	3.1E-02	2.49E-02	pCi/g		*(4.1)*	7/1/11 06:14 a		349.5	GER11$1
							1.00E-01	*(6.7)*			g	
EU-152	***1.18E-02***	U	3.5E-02	3.5E-02	6.02E-02	pCi/g		*0.2*	7/1/11 06:14 a		349.5	GER11$1
							1.00E-01	*0.67*			g	
EU-154	***-1.95E-03***	U	5.2E-02	5.2E-02	8.97E-02	pCi/g		*-0.02*	7/1/11 06:14 a		349.5	GER11$1
							1.00E-01	*-0.08*			g	
EU-155	***6.40E-03***	U	4.1E-02	4.1E-02	6.96E-02	pCi/g		*0.09*	7/1/11 06:14 a		349.5	GER11$1
							1.00E-01	*0.31*			g	
Batch: 1180132	7196_CR6			**Work Order:**	MKKA41AA		**Report DB ID:**	9MKKA410				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5142	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 10:05:00 AM
Lot-Sample No.:	J1F290429-5	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL6	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKA71AC		Report DB ID:	9MKKA710				
AMERICIUM 241	***-3.87E-02***	U	4.6E-02	4.6E-02	7.42E-02	pCi/g		*-0.52*	7/1/11 06:14 a		347.3	GER14$1
								-(1.7)			g	
CO-60	***-1.02E-02***	U	2.2E-02	2.2E-02	3.81E-02	pCi/g		*-0.27*	7/1/11 06:14 a		347.3	GER14$1
							5.00E-02	*-0.91*			g	
CS-137	***1.15E-01***		4.0E-02	4.0E-02	4.01E-02	pCi/g		*(2.9)*	7/1/11 06:14 a		347.3	GER14$1
							1.00E-01	*(5.8)*			g	
EU-152	***-2.82E-02***	U	7.9E-02	7.9E-02	1.08E-01	pCi/g		*-0.26*	7/1/11 06:14 a		347.3	GER14$1
							1.00E-01	*-0.72*			g	
EU-154	***2.87E-02***	U	6.7E-02	6.7E-02	1.24E-01	pCi/g		*0.23*	7/1/11 06:14 a		347.3	GER14$1
							1.00E-01	*0.85*			g	
EU-155	***3.33E-02***	U	6.1E-02	6.1E-02	1.05E-01	pCi/g		*0.32*	7/1/11 06:14 a		347.3	GER14$1
							1.00E-01	*(1.1)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKA71AA		Report DB ID:	9MKKA710				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5095	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 10:20:00 AM
Lot-Sample No.:	J1F290429-6	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL7	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKCA1AC		Report DB ID:	9MKKCA10				
AMERICIUM 241	***-5.45E-02***	U	6.7E-02	6.7E-02	1.12E-01	pCi/g		*-0.49*	7/1/11 06:15 a		360.5	GER7$1
								-(1.6)			g	
CO-60	***6.78E-03***	U	2.1E-02	2.1E-02	3.94E-02	pCi/g		*0.17*	7/1/11 06:15 a		360.5	GER7$1
							5.00E-02	*0.64*			g	
CS-137	***7.37E-02***		3.3E-02	3.3E-02	3.96E-02	pCi/g		*(1.9)*	7/1/11 06:15 a		360.5	GER7$1
							1.00E-01	*(4.5)*			g	
EU-152	***-1.84E-02***	U	5.3E-02	5.3E-02	9.10E-02	pCi/g		*-0.2*	7/1/11 06:15 a		360.5	GER7$1
							1.00E-01	*-0.69*			g	
EU-154	***-1.03E-01***	U	7.5E-02	7.5E-02	1.14E-01	pCi/g		*-0.9*	7/1/11 06:15 a		360.5	GER7$1
							1.00E-01	*-(2.7)*			g	
EU-155	***4.58E-02***	U	5.4E-02	5.4E-02	9.19E-02	pCi/g		*0.5*	7/1/11 06:15 a		360.5	GER7$1
							1.00E-01	*(1.7)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKCA1AA		Report DB ID:	9MKKCA10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5075	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yeld, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 10:35:00 AM
Lot-Sample No.:	J1F290429-7	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL8	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKCE1AC		Report DB ID:	9MKKCE10				
AMERICIUM 241	***-6.23E-02***	U	9.7E-02	9.7E-02	1.59E-01	pCi/g		*-0.39*	7/1/11 06:15 a		310.4	GER10$1
								-(1.3)			g	
CO-60	***-4.36E-04***	U	2.1E-02	2.1E-02	3.64E-02	pCi/g		*-0.01*	7/1/11 06:15 a		310.4	GER10$1
							5.00E-02	*-0.04*			g	
CS-137	***1.41E-02***	U	2.2E-02	2.2E-02	3.86E-02	pCi/g		*0.36*	7/1/11 06:15 a		310.4	GER10$1
							1.00E-01	*(1.3)*			g	
EU-152	***-7.88E-02***	U	1.6E-01	1.6E-01	9.57E-02	pCi/g		*-0.82*	7/1/11 06:15 a		310.4	GER10$1
							1.00E-01	*-0.98*			g	
EU-154	***-4.77E-02***	U	6.0E-02	6.0E-02	9.90E-02	pCi/g		*-0.48*	7/1/11 06:15 a		310.4	GER10$1
							1.00E-01	*-(1.6)*			g	
EU-155	***2.82E-02***	U	7.0E-02	7.0E-02	1.17E-01	pCi/g		*0.24*	7/1/11 06:15 a		310.4	GER10$1
							1.00E-01	*0.81*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKCE1AA		Report DB ID:	9MKKCE10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5035	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield,, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 10:45:00 AM
Lot-Sample No.:	J1F290429-8	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL9	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKCH1AC		Report DB ID: 9MKKCH10					
AMERICIUM 241	***-1.46E-02***	U	1.7E-01	1.7E-01	2.89E-01	pCi/g		*-0.05*	7/1/11 06:15 a		371.1	GER13$1
								-0.17			g	
CO-60	***-3.47E-03***	U	1.9E-02	1.9E-02	3.25E-02	pCi/g		*-0.11*	7/1/11 06:15 a		371.1	GER13$1
							5.00E-02	*-0.37*			g	
CS-137	***8.92E-02***		3.2E-02	3.2E-02	3.03E-02	pCi/g		*(2.9)*	7/1/11 06:15 a		371.1	GER13$1
							1.00E-01	*(5.6)*			g	
EU-152	***-3.14E-02***	U	4.8E-02	4.8E-02	7.77E-02	pCi/g		*-0.4*	7/1/11 06:15 a		371.1	GER13$1
							1.00E-01	*-(1.3)*			g	
EU-154	***-1.88E-02***	U	6.0E-02	6.0E-02	1.02E-01	pCi/g		*-0.18*	7/1/11 06:15 a		371.1	GER13$1
							1.00E-01	*-0.63*			g	
EU-155	***6.85E-02***	U	6.0E-02	6.0E-02	1.02E-01	pCi/g		*0.67*	7/1/11 06:15 a		371.1	GER13$1
							1.00E-01	*(2.3)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKCH1AA		Report DB ID: 9MKKCH10					
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5083	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	**SDG:**	J01148	**Collection Date:**	6/28/2011 10:50:00 AM
Lot-Sample No.:	J1F290429-9	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM0	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKCL1AC		**Report DB ID:**	9MKKCL10				
AMERICIUM 241	***-8.34E-03***	U	8.3E-02	8.3E-02	1.39E-01	pCi/g		*-0.06*	7/1/11 09:47 a		385.5	GER10$1
								-0.2			g	
CO-60	***1.67E-03***	U	1.7E-02	1.7E-02	2.97E-02	pCi/g		*0.06*	7/1/11 09:47 a		385.5	GER10$1
							5.00E-02	*0.2*			g	
CS-137	***1.19E-01***		3.0E-02	3.0E-02	3.10E-02	pCi/g		*(3.8)*	7/1/11 09:47 a		385.5	GER10$1
							1.00E-01	*(8.)*			g	
EU-152	***2.19E-02***	U	7.6E-02	7.6E-02	8.26E-02	pCi/g		*0.27*	7/1/11 09:47 a		385.5	GER10$1
							1.00E-01	*0.58*			g	
EU-154	***-5.42E-02***	U	5.3E-02	5.3E-02	8.60E-02	pCi/g		*-0.63*	7/1/11 09:47 a		385.5	GER10$1
							1.00E-01	*-(2.)*			g	
EU-155	***4.57E-02***	U	6.1E-02	6.1E-02	1.02E-01	pCi/g		*0.45*	7/1/11 09:47 a		385.5	GER10$1
							1.00E-01	*(1.5)*			g	
Batch: 1180132	7196_CR6			**Work Order:**	MKKCL1AA		**Report DB ID:**	9MKKCL10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5168	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	**TestAmerica**	**SDG:**	J01148	**Collection Date:**	6/28/2011 11:00:00 AM
Lot-Sample No.:	**J1F290429-10**	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	**J1JWM1**	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKCP1AC		**Report DB ID:**	9MKKCP10				
AMERICIUM 241	***1.96E-02***	U	6.8E-02	6.8E-02	1.18E-01	pCi/g		*0.17*	7/1/11 09:48 a		351.4	GER7$1
								0.58			g	
CO-60	***6.83E-03***	U	2.3E-02	2.3E-02	4.26E-02	pCi/g		*0.16*	7/1/11 09:48 a		351.4	GER7$1
							5.00E-02	*0.59*			g	
CS-137	***1.78E-02***	U	2.3E-02	2.3E-02	4.22E-02	pCi/g		*0.42*	7/1/11 09:48 a		351.4	GER7$1
							1.00E-01	*(1.5)*			g	
EU-152	***-2.06E-02***	U	5.4E-02	5.4E-02	9.20E-02	pCi/g		*-0.22*	7/1/11 09:48 a		351.4	GER7$1
							1.00E-01	*-0.76*			g	
EU-154	***-2.43E-02***	U	7.5E-02	7.5E-02	1.28E-01	pCi/g		*-0.19*	7/1/11 09:48 a		351.4	GER7$1
							1.00E-01	*-0.64*			g	
EU-155	***2.86E-02***	U	5.4E-02	5.4E-02	9.12E-02	pCi/g		*0.31*	7/1/11 09:48 a		351.4	GER7$1
							1.00E-01	*(1.1)*			g	
Batch: 1180132	7196_CR6			**Work Order:**	MKKCP1AA		**Report DB ID:**	9MKKCP10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5009	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	**SDG:**	J01148	**Collection Date:**	6/28/2011 11:10:00 AM
Lot-Sample No.:	J1F290429-11	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM2	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKCT1AC		**Report DB ID:**	9MKKCT10				
AMERICIUM 241	***-2.05E-02***	U	4.4E-02	4.4E-02	7.26E-02	pCi/g		*-0.28*	7/1/11 09:48 a		374.3	GER14$1
								-0.93			g	
CO-60	***-1.60E-02***	U	1.8E-02	1.8E-02	2.93E-02	pCi/g		*-0.55*	7/1/11 09:48 a		374.3	GER14$1
							5.00E-02	*-(1.8)*			g	
CS-137	***2.40E-02***	U	2.6E-02	2.6E-02	4.66E-02	pCi/g		*0.51*	7/1/11 09:48 a		374.3	GER14$1
							1.00E-01	*(1.8)*			g	
EU-152	***2.85E-02***	U	6.7E-02	6.7E-02	1.02E-01	pCi/g		*0.28*	7/1/11 09:48 a		374.3	GER14$1
							1.00E-01	*0.86*			g	
EU-154	***-2.50E-02***	U	6.7E-02	6.7E-02	1.15E-01	pCi/g		*-0.22*	7/1/11 09:48 a		374.3	GER14$1
							1.00E-01	*-0.75*			g	
EU-155	***4.71E-02***	U	5.8E-02	5.8E-02	1.01E-01	pCi/g		*0.47*	7/1/11 09:48 a		374.3	GER14$1
							1.00E-01	*(1.6)*			g	
Batch: 1180132	7196_CR6			**Work Order:**	MKKCT1AA		**Report DB ID:**	9MKKCT10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5128	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 11:15:00 AM
Lot-Sample No.:	J1F290429-12	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM3	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKC41AC		Report DB ID:	9MKKC410				
AMERICIUM 241	***-4.58E-02***	U	8.4E-02	8.4E-02	1.38E-01	pCi/g		*-0.33*	7/1/11 01:17 p		384.5	GER10$1
								-(1.1)			g	
CO-60	***1.31E-02***	U	1.7E-02	1.7E-02	3.11E-02	pCi/g		*0.42*	7/1/11 01:17 p		384.5	GER10$1
							5.00E-02	*(1.6)*			g	
CS-137	***3.07E-02***	U	1.9E-02	1.9E-02	3.35E-02	pCi/g		*0.92*	7/1/11 01:17 p		384.5	GER10$1
							1.00E-01	*(3.3)*			g	
EU-152	***-4.81E-02***	U	8.4E-02	8.4E-02	8.31E-02	pCi/g		*-0.58*	7/1/11 01:17 p		384.5	GER10$1
							1.00E-01	*-(1.2)*			g	
EU-154	***-1.59E-03***	U	5.5E-02	5.5E-02	9.64E-02	pCi/g		*-0.02*	7/1/11 01:17 p		384.5	GER10$1
							1.00E-01	*-0.06*			g	
EU-155	***2.76E-02***	U	6.2E-02	6.2E-02	1.04E-01	pCi/g		*0.27*	7/1/11 01:17 p		384.5	GER10$1
							1.00E-01	*0.89*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKC41AA		Report DB ID:	9MKKC410				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5055	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 10:35:00 AM
Lot-Sample No.:	J1F290429-13	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM4	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKC81AC		Report DB ID:	9MKKC810				
AMERICIUM 241	***4.23E-02***	U	7.7E-02	7.7E-02	1.35E-01	pCi/g		*0.31*	7/1/11 01:18 p		297.2	GER7$1
								(1.1)			g	
CO-60	***6.82E-03***	U	2.8E-02	2.8E-02	5.08E-02	pCi/g		*0.13*	7/1/11 01:18 p		297.2	GER7$1
							5.00E-02	*0.49*			g	
CS-137	***3.22E-02***	U	2.6E-02	2.6E-02	4.92E-02	pCi/g		*0.65*	7/1/11 01:18 p		297.2	GER7$1
							1.00E-01	*(2.4)*			g	
EU-152	***-1.09E-02***	U	6.2E-02	6.2E-02	1.07E-01	pCi/g		*-0.1*	7/1/11 01:18 p		297.2	GER7$1
							1.00E-01	*-0.35*			g	
EU-154	***3.97E-02***	U	8.3E-02	8.3E-02	1.51E-01	pCi/g		*0.26*	7/1/11 01:18 p		297.2	GER7$1
							1.00E-01	*0.96*			g	
EU-155	***4.74E-02***	U	6.0E-02	6.0E-02	1.03E-01	pCi/g		*0.46*	7/1/11 01:18 p		297.2	GER7$1
							1.00E-01	*(1.6)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKC81AA		Report DB ID:	9MKKC810				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5021	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 12:20:00 PM
Lot-Sample No.:	J1F290429-14	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM5	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKDF1AC		Report DB ID:	9MKKDF10				
AMERICIUM 241	-3.96E-02	U	4.6E-02	4.6E-02	7.50E-02	pCi/g		-0.53	7/1/11 01:18 p		352.1	GER14$1
								-(1.7)			g	
CO-60	1.42E-02	U	2.1E-02	2.1E-02	3.94E-02	pCi/g		0.36	7/1/11 01:18 p		352.1	GER14$1
							5.00E-02	(1.4)			g	
CS-137	1.31E-02	U	2.5E-02	2.5E-02	4.41E-02	pCi/g		0.3	7/1/11 01:18 p		352.1	GER14$1
							1.00E-01	(1.1)			g	
EU-152	3.98E-03	U	7.1E-02	7.1E-02	1.09E-01	pCi/g		0.04	7/1/11 01:18 p		352.1	GER14$1
							1.00E-01	0.11			g	
EU-154	1.00E-02	U	7.2E-02	7.2E-02	1.28E-01	pCi/g		0.08	7/1/11 01:18 p		352.1	GER14$1
							1.00E-01	0.28			g	
EU-155	6.29E-02	U	6.2E-02	6.2E-02	1.07E-01	pCi/g		0.59	7/1/11 01:18 p		352.1	GER14$1
							1.00E-01	(2.)			g	
Batch: 1180132	7196_CR6			Work Order:	MKKDF1AA		Report DB ID:	9MKKDF10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	7/5/11 09:00 a		2.5102	
							1.55E-01	N/A			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 12:35:00 PM
Lot-Sample No.:	J1F290429-15	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM6	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKDJ1AC		Report DB ID:	9MKKDJ10				
AMERICIUM 241	***-1.30E-02***	U	8.9E-02	8.9E-02	1.49E-01	pCi/g		*-0.09*	7/1/11 05:27 p		341.7	GER10$1
								-0.29			g	
CO-60	***1.52E-02***	U	1.7E-02	1.7E-02	3.17E-02	pCi/g		*0.48*	7/1/11 05:27 p		341.7	GER10$1
							5.00E-02	*(1.8)*			g	
CS-137	***6.69E-02***		2.7E-02	2.7E-02	3.26E-02	pCi/g		*(2.1)*	7/1/11 05:27 p		341.7	GER10$1
							1.00E-01	*(4.9)*			g	
EU-152	***-9.13E-03***	U	1.0E-01	1.0E-01	9.17E-02	pCi/g		*-0.1*	7/1/11 05:27 p		341.7	GER10$1
							1.00E-01	*-0.18*			g	
EU-154	***-4.40E-03***	U	5.8E-02	5.8E-02	1.02E-01	pCi/g		*-0.04*	7/1/11 05:27 p		341.7	GER10$1
							1.00E-01	*-0.15*			g	
EU-155	***-4.20E-02***	U	6.4E-02	6.4E-02	1.04E-01	pCi/g		*-0.4*	7/1/11 05:27 p		341.7	GER10$1
							1.00E-01	*-(1.3)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKDJ1AA		Report DB ID:	9MKKDJ10				
HEXCHROME	***2.31E-01***			0.0E+00	1.55E-01	mg/kg	N/A	*(1.5)*	7/5/11 09:00 a		2.5095	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	**SDG:**	J01148	**Collection Date:**	6/28/2011 12:50:00 PM
Lot-Sample No.:	J1F290429-16	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM7	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKDN1AC		**Report DB ID:**	9MKKDN10				
AMERICIUM 241	***-2.47E-02***	U	6.5E-02	6.5E-02	1.10E-01	pCi/g		*-0.22*	7/1/11 05:28 p		356.8	GER7$1
								-0.76			g	
CO-60	***7.01E-03***	U	2.2E-02	2.2E-02	4.06E-02	pCi/g		*0.17*	7/1/11 05:28 p		356.8	GER7$1
							5.00E-02	*0.64*			g	
CS-137	***1.30E-02***	U	2.3E-02	2.3E-02	4.21E-02	pCi/g		*0.31*	7/1/11 05:28 p		356.8	GER7$1
							1.00E-01	*(1.1)*			g	
EU-152	***5.27E-03***	U	5.4E-02	5.4E-02	9.42E-02	pCi/g		*0.06*	7/1/11 05:28 p		356.8	GER7$1
							1.00E-01	*0.2*			g	
EU-154	***-2.13E-02***	U	7.1E-02	7.1E-02	1.21E-01	pCi/g		*-0.18*	7/1/11 05:28 p		356.8	GER7$1
							1.00E-01	*-0.6*			g	
EU-155	***5.30E-02***	U	5.0E-02	5.0E-02	8.71E-02	pCi/g		*0.61*	7/1/11 05:28 p		356.8	GER7$1
							1.00E-01	*(2.1)*			g	
Batch: 1180132	7196_CR6			**Work Order:**	MKKDN1AA		**Report DB ID:**	9MKKDN10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5042	
							1.55E-01	*N/A*			g	

No. of Results: 7 **Comments:**

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 12:55:00 PM
Lot-Sample No.:	J1F290429-17	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM8	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKDQ1AC		Report DB ID:	9MKKDQ10				
AMERICIUM 241	***-1.62E-02***	U	4.4E-02	4.4E-02	7.26E-02	pCi/g		*-0.22*	7/1/11 05:28 p		367.6	GER14$1
								-0.74			g	
CO-60	***1.17E-02***	U	2.2E-02	2.2E-02	4.09E-02	pCi/g		*0.29*	7/1/11 05:28 p		367.6	GER14$1
							5.00E-02	*(1.1)*			g	
CS-137	***4.47E-02***		3.2E-02	3.2E-02	3.95E-02	pCi/g		*(1.1)*	7/1/11 05:28 p		367.6	GER14$1
							1.00E-01	*(2.8)*			g	
EU-152	***-2.51E-02***	U	7.0E-02	7.0E-02	1.04E-01	pCi/g		*-0.24*	7/1/11 05:28 p		367.6	GER14$1
							1.00E-01	*-0.72*			g	
EU-154	***-1.80E-02***	U	7.0E-02	7.0E-02	1.21E-01	pCi/g		*-0.15*	7/1/11 05:28 p		367.6	GER14$1
							1.00E-01	*-0.52*			g	
EU-155	***7.08E-02***	U	5.9E-02	5.9E-02	1.02E-01	pCi/g		*0.69*	7/1/11 05:28 p		367.6	GER14$1
							1.00E-01	*(2.4)*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKDQ1AA		Report DB ID:	9MKKDQ10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.5072	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 07-Jul-11

Lab Name:	TestAmerica	SDG:	J01148	Collection Date:	6/28/2011 12:20:00 PM
Lot-Sample No.:	J1F290429-18	Report No. :	47294	Received Date:	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWM9	COC No. :	RC-181-017	Matrix:	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			Work Order:	MKKDR1AC		Report DB ID:	9MKKDR10				
AMERICIUM 241	***-3.59E-02***	U	1.9E-01	1.9E-01	3.12E-01	pCi/g		*-0.12*	7/2/11 08:53 a		348.1	GER13$1
								-0.39			g	
CO-60	***-9.40E-03***	U	1.9E-02	1.9E-02	3.14E-02	pCi/g		*-0.3*	7/2/11 08:53 a		348.1	GER13$1
							5.00E-02	*-(1.)*			g	
CS-137	***2.34E-02***	U	2.0E-02	2.0E-02	3.57E-02	pCi/g		*0.65*	7/2/11 08:53 a		348.1	GER13$1
							1.00E-01	*(2.3)*			g	
EU-152	***-5.16E-03***	U	5.1E-02	5.1E-02	8.59E-02	pCi/g		*-0.06*	7/2/11 08:53 a		348.1	GER13$1
							1.00E-01	*-0.2*			g	
EU-154	***-7.58E-02***	U	6.8E-02	6.8E-02	1.09E-01	pCi/g		*-0.69*	7/2/11 08:53 a		348.1	GER13$1
							1.00E-01	*-(2.2)*			g	
EU-155	***2.06E-02***	U	5.8E-02	5.8E-02	9.99E-02	pCi/g		*0.21*	7/2/11 08:53 a		348.1	GER13$1
							1.00E-01	*0.72*			g	
Batch: 1180132	7196_CR6			Work Order:	MKKDR1AA		Report DB ID:	9MKKDR10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	7/5/11 09:00 a		2.502	
							1.55E-01	*N/A*			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchSample
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 07-Jul-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01148	**Collection Date:**	6/28/2011 9:45:00 AM
Lot-Sample No.:	J1F290429-1	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL2	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180132	7196_CR6			**Work Order:** MKKAP1AF		**Report DB ID:** MKKAP1ER			**Orig Sa DB ID:** 9MKKAP10			
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	7/5/11 09:00 a		2.5058	
	2.74E-01		**RPD**	**55.5**		3.50E-01		N/A			g	

No. of Results: 1 **Comments:**

TestAmerica
rptSTLRchDupV5.2
.15 A2002

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

Date: 07-Jul-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01148	**Collection Date:**	6/28/2011 9:45:00 AM
Lot-Sample No.:	J1F290429-1	**Report No. :**	47294	**Received Date:**	6/29/2011 10:15:00 AM
Client Sample ID:	J1JWL2 DUP	**COC No. :**	RC-181-017	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKAP1AD	**Report DB ID:**	MKKAP1DR		**Orig Sa DB ID:**	9MKKAP10		
AMERICIUM 241	-2.48E-02	U	6.3E-02	6.3E-02	1.07E-01	pCi/g		-0.23	7/1/11 02:50 a		389.3	GER7$1
	-3.47E-02	U	**RPD**	**-33.4**				-0.79			g	
CO-60	-6.20E-03	U	2.1E-02	2.1E-02	3.64E-02	pCi/g		-0.17	7/1/11 02:50 a		389.3	GER7$1
	-7.53E-03	U	**RPD**	**-19.4**		5.00E-02		-0.6			g	
CS-137	8.78E-03	U	2.1E-02	2.1E-02	3.81E-02	pCi/g		0.23	7/1/11 02:50 a		389.3	GER7$1
	4.74E-03	U	**RPD**	**59.8**		1.00E-01		0.82			g	
EU-152	-2.37E-03	U	5.0E-02	5.0E-02	8.66E-02	pCi/g		-0.03	7/1/11 02:50 a		389.3	GER7$1
	3.78E-02	U	**RPD**	**226.8**		1.00E-01		-0.09			g	
EU-154	6.29E-04	U	6.8E-02	6.8E-02	1.19E-01	pCi/g		0.01	7/1/11 02:50 a		389.3	GER7$1
	-8.17E-03	U	**RPD**	**-233.4**		1.00E-01		0.02			g	
EU-155	4.05E-02	U	4.8E-02	4.8E-02	8.27E-02	pCi/g		0.49	7/1/11 02:50 a		389.3	GER7$1
	3.04E-02	U	**RPD**	**28.6**		1.00E-01		(1.7)			g	

No. of Results: 6 **Comments:**

TestAmerica
rptSTLRchDupV5.2
.15 A2002

RPD - Relative Percent Difference.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 07-Jul-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01148

Report No. : 47294

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1180132	7196_CR6			Work Order:	MKKL91AB		Report DB ID:	MKKL91AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	7/5/11 09:00 a		2.5	
								N/A			g	
Batch: 1180127	GAMMA_GS			Work Order:	MKKKP1AA		Report DB ID:	MKKKP1AB				
AMERICIUM 241	-1.89E-02	U	4.6E-02	4.6E-02	7.79E-02	pCi/g		-0.24	7/2/11 08:54 a		348.0	GER10$1
								-0.81			g	
CO-60	-1.29E-02	U	1.2E-02	1.2E-02	1.80E-02	pCi/g		-0.72	7/2/11 08:54 a		348.0	GER10$1
						5.00E-02		-(2.2)			g	
CS-137	-8.53E-03	U	1.1E-02	1.1E-02	1.81E-02	pCi/g		-0.47	7/2/11 08:54 a		348.0	GER10$1
						1.00E-01		-(1.5)			g	
EU-152	-2.80E-02	U	3.2E-02	3.2E-02	4.99E-02	pCi/g		-0.56	7/2/11 08:54 a		348.0	GER10$1
						1.00E-01		-(1.8)			g	
EU-154	-8.32E-04	U	2.9E-02	2.9E-02	5.33E-02	pCi/g		-0.02	7/2/11 08:54 a		348.0	GER10$1
						1.00E-01		-0.06			g	
EU-155	-6.81E-03	U	3.2E-02	3.2E-02	5.38E-02	pCi/g		-0.13	7/2/11 08:54 a		348.0	GER10$1
						1.00E-01		-0.43			g	

No. of Results: 7 Comments:

TestAmerica
rptSTLRchBlank
V5.2.15 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 07-Jul-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01148

Report No. : 47294

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 1180132	7196_CR6			**Work Order:**	MKKL91AC		**Report DB ID:**	MKKL91AS					
HEXCHROME	1.83E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		92%	7/5/11 09:00 a	2.5	
							Rec Limits:	80	120	-0.1		g	
Batch: 1180127	GAMMA_GS			**Work Order:**	MKKKP1AC		**Report DB ID:**	MKKKP1CS					
CS-137	1.12E+00		1.5E-01	1.5E-01	3.85E-02	pCi/g		1.08E+00	1.1E-02	104%	7/2/11 08:54 a	350.1	GER7$1
							Rec Limits:	70	130	0.0		g	

No. of Results: 2 **Comments:**

TestAmerica **Bias** - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTLRchLcs
V5.2.15 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 07-Jul-11

Lab Name: TestAmerica

SDG: J01148

Lot-Sample No.: J1F290429-1, J1JWL2

Report No. : 47294

Matrix: SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 1180132	Work Order: MKKAP1AE			Report DB ID: MKKAP1CW			Orig Sa DB ID: 9MKKAP10					
HEXCHROME	5.90E+00			0.0E+00	1.55E-01	mg/kg	N/A	59.18%	9.98E+00	7/5/11 09:00 a	2.5132	7196_CR6
	2.74E-01										g	

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.15 A2002

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
Bias - (Result/Expected)-1 as defined by ANSI N13.30.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

7/5/2011 2:53:38 PM

Lot No., Due Date: J1F290429; 07/14/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1180127; RGAMMA Gamma by GER
SDG, Matrix: J00148; SOIL

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:
Please see NCM # 10-18716

First Level [signature] Date 7-5-11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1180127

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 = 0.1 pCi/g

Second Level Review: [signature] Date: 7/7/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-18716**
NCM Initiated By: John Norton
Date Opened: 07/05/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J1F290000 (127), J1F290429 (1,10,11,12,13,14,15,16,17,18,2,3,4,5,6,7,8,9),
QC Batches: 1180127,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
John Norton	07/05/2011	Many of these samples did not meet the CRDL.

Corrective Action

Name	Date	Corrective Action
John Norton	07/05/2011	Due to the priority nature of the samples the data will be presented to the client, the samples can be re-counted for a longer time frame at client request.

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: 7/5/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 1180132

Lab Sample Numbers or SDG: **J01148**

Method/Test/Parameter: **Cr+6 in SOLID / RL-WC-004**

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
A. Initial Calibration 1. Performed at required frequency with required number of levels?	✓			✓
2. Correlation coefficient within QC limits?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within QC limits?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration 1. CCV analyzed at required frequency and all parameters within QC limits?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis 1. Were any samples with concentrations above the linear range for any parameter diluted and reanalyzed?			✓	✓
2. Were all sample holding times met?	✓			✓
D. QC Samples 1. All results for the preparation blank below limits?	✓			✓
2. MS or MS/MSD recoveries within QC limits and %RPD (for MSD) acceptable?		✓		✓
3. LCS percent recovery within QC limits and %RPD (for LCSD) acceptable?	✓			✓
4. Analytical spikes within QC limits where applicable?		✓		✓
5. ICP only: One serial dilution performed per SDG?			✓	✓
6. ICP only: CRDL standard (CRI or CRA) analyzed at required frequency?			✓	✓
7. ICP only: Interference check samples (ICSA, ICSAB) and HICAL analyzed at the required frequencies and within QC limits?			✓	✓

Review Item	Yes (✓)	No (✓)	N/A (✓)	2nd Level Review (✓)
E. Other	✓			
1. Are all nonconformances included and noted?				✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

Comments on any "No" response: The MS recovered low at 59.2%. The insoluble MS recovered within limits at 100.8%. PDMS recovered at 97.4%.

Suspect reducing capacity in the sample, but not enough to exhaust the more copious insoluble MS.

Analyst: Is·R Date: 7-6-11

Second-Level Review: Date: 7/6/11

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-18718**
NCM Initiated By: Hooshang Rahavi
Date Opened: 07/06/2011
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Classical Chemistry
Tests: 7196A
Lot #'s (Sample #'s): J1F290000 (132), J1F290429 (1,10,11,12,13,14,15,16,17,18,2,3,4,5,6,7,8,9),
QC Batches: 1180132,

Nonconformance: QC data exceeded criteria
Subcategory: MS/MSD accuracy and/or precision out of control

Problem Description / Root Cause

Name	Date	Description
Hooshang Rahavi	07/06/2011	The MS recovered low at 59.2%. The insoluble MS recovered within limits at 100.8%. PDMS recovered at 97.4%. Suspect reducing capacity in the sample, but not enough to exhaust the more copious insoluble MS.

Corrective Action

Name	Date	Corrective Action
Hooshang Rahavi	07/06/2011	Report data

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 1 of 4

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code ~~8L~~ 8C JR 6/27/11	Data Turnaround ~~21 Days~~ 15/15 JR 6/27/11		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VER SPA & OB	SAF No. JR 6/27/11 ~~RC-181~~ RC-217	
Ice Chest No. NA	Field Logbook No. EL-1651-01	COA R00F452000	Method of Shipment ~~FedEx~~ Hand Deliver JR 6/27/11
Shipped To TestAmerica Incorporated, Richland / ~~Denver~~ AJ 6-28-11	Offsite Property No. NA		Bill of Lading/Air Bill No. NA

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions. JR 6/27/11	Chromium Hex - 7196	See item (2) in Special Instructions.								

J1F290429

Sample No.	Matrix *	Sample Date	Sample Time									
J1JWL2	SOIL	6-28-11	0945		X	X					MKKAP	1
J1JWL3	SOIL	6-28-11	0950		X	X					MKKAX	2
J1JWL4	SOIL	6-28-11	0955		X	X					MKKA1	3
J1JWL5	SOIL	6-28-11	1000		X	X					MKKAH	4
J1JWL6	SOIL	6-28-11	1005		X	X					MKKA7	5

CHAIN OF POSSESSION

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
~~David B. Rice~~ David D. Rice	6-28-11 1315	Jen Russell Jen Russell	6/28/11 1315
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Jen Russell Jen Russell	6/28/11 1545	A. Freier A. Freier 1060, #1	1530 6-28-11
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
A. Freier A. Freier 1060, #1	WCH 1015 6-29-11	TALR WCH 6/29/11 Incas Kelington	1015 ~~6/29/11~~
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

~~(1) ICP Metals - 6010TR (Close-out List) (Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc); Mercury - 7471 - (CV) (Mercury)~~ 6-29-11

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

RR 6-29-11

~~S00148~~ J01148

SDG ~~J00148~~

Due 7.14.11

REVIEWED

DATE 6-29-11

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 2 of 4

Collector: RICE, DD	Company Contact: JL Russell · Telephone No.: (509) 380-8093	Project Coordinator: KESSNER, JH	Price Code: JR 6/27/11 ~~8L~~ 8C; Data Turnaround: JR 6/27/11 ~~21 Days~~ 15/15
Project Designation: ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location: 100-F-45 VER SPA & OB	SAF No.: JR 6/27/11 ~~RC-181~~ RC-217	
Ice Chest No.: NA	Field Logbook No.: EL-1651-01; COA: R00F452000	Method of Shipment: ~~FedEx~~ Hand Deliver JR 6/27/11	
Shipped To: TestAmerica Incorporated Richland / ~~Denver~~ AT 6-28-11	Offsite Property No.: NA	Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions. JR 6/27	Chromium Hex - 7196	See item (2) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time								
J1JWL7	SOIL	6-28-11	1020		X	X				MKKCA	6
J1JWL8	SOIL	6-28-11	1035		X	X				MKKCE	7
J1JWL9	SOIL	6-28-11	1045		X	X				MKKCH	8
J1JWM0	SOIL	6-28-11	1050		X	X				MKKCL	9
J1JWM1	SOIL	6-28-11	1100		X	X				MKKCP	10

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice / David D. Rice	6-28-11 1315	JeRussell / JeRussell	6/28/11 1315
JeRussell / JeRussell	6/28/11 1530	1060, #1 A. Freier / A. Freier	1530 6-28-11
A. Freier / A. Freier 1060, #1	WCH 1015 6-28-11	Lucas Velazquez / [illegible]	TAR 1015 6/28/11

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) (Mercury) AP 6-29-11

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

REVIEWED BY AP DATE 6-29-11

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 3 of 4

Collector: RICE, DD	Company Contact: JL Russell	Telephone No.: (509) 380-8093	Project Coordinator: KESSNER, JH
Price Code: ~~8L~~ 8C (JR 6/27/11)	Data Turnaround: ~~21 Days~~ 15/15 (JR 6/27/11)		
Project Designation: ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location: 100-F-45 VER SPA & OB		SAF No.: ~~RC-181~~ RC-217 (JR 6/27/11)
Ice Chest No.: NA	Field Logbook No.: EL-1651-01	COA: R00F452000	Method of Shipment: ~~FedEx~~ Hand Deliver (JR 6/27/11)
Shipped To: TestAmerica Incorporated, Richland / ~~Denver~~ (AJ 6-28-11)	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions. (JR 6/27)	Chromium Hex - 7196	See item (2) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time								
J1JWM2	SOIL	6-28-11	1110		X	X				MKKCT	11
J1JWM3	SOIL	6-28-11	1115		X	X				MKKC4	12
J1JWM4	SOIL	6-28-11	1035		X	X				MKKC8	DUP
J1JWM5	SOIL	6-28-11	1220		X	X				MKKDF	OB-1
J1JWM6	SOIL	6-28-11	1235		X	X				MKKDJ	OB-2

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	6-28-11 1315	Jen Russell / JL Russell	6/28/11 1315
Jen Russell / JL Russell	6/28/11 1530	A. Freier / A. Freier (1060, #1)	6-28-11 1530
A. Freier / A. Freier (1060, #1) (WCH)	6-29-11 1015	Lucas Velazquez / Lucas Velazquez (TAH)	6/29/11 1015

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out List) {Aluminum, Antimony, Arsenic, Barium, ~~Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc~~}; Mercury - 7471 - (CV) (Mercury) AJ 6-28-11

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

REVIEWED BY AJ DATE 6-29-11

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 4 of 4

Collector: RICE, DD	Company Contact: JL Russell	Telephone No.: (509) 380-8093	Project Coordinator: KESSNER, JH
Price Code: ~~8L~~ 8C (JR 6/27/11)	Data Turnaround: ~~21 Days~~ 15/15 (JR 6/27/11)		
Project Designation: ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location: 100-F-45 VER SPA & OB	SAF No.: ~~RC-181~~ RC-217 (JR 6/27/11)	
Ice Chest No.: NA	Field Logbook No.: EL-1651-01	COA: R00F452000	Method of Shipment: ~~FedEx~~ Hand Deliver JR 6/27/11
Shipped To: TestAmerica Incorporated, Richland / ~~Denver~~ AJ 6-28-11	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions. JR 6/27	Chromium Hex - 7196	See item (2) in Special Instructions								

Sample No.	Matrix *	Sample Date	Sample Time									
J1JWM7	SOIL	6-28-11	1250		X	X				MKKDN		OB-3
J1JWM8	SOIL	6-28-11	1255		X	X				MKKDQ		OB-4
J1JWM9	SOIL	6-28-11	~~1105~~ 1035		X	X				MKKDR		DUP
~~J1JWN0~~ ~~JR 6/27/11~~	~~SOIL~~		JR 6/28/11	1220								EB

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice / David D. Rice	6-28-11 1315	Jen Russell / Jen Russell	6/28/11 1315
Jen Russell / Jen Russell	6/28/11 1530	A. Freier / A. Freier 1060, #1	6-28-11 1530
A. Freier / A. Freier 1060, #1	6-29-11 1015	Thomas Velazquez / [illegible]	6/29/11 1015

SPECIAL INSTRUCTIONS

~~(1) ICP Metals - 6010TR (Close out List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}, Mercury - 7471 - (CV) (Mercury)~~ AP 6-29-11

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

REVIEWED BY [illegible] DATE 6-29-11

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

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Sample Check-in List

Date/Time Received: 6/29/11 @ 1015 GM Screen Result: (Airlock) .04 Initials HC
(Sample Receiving) .04 Initials [ ]

Client: WCH SDG #: J00148 NA [ ] SAF #: RC-217 NA [ ]

Lot Number: J1F290429

Chain of Custody # RC-181-017

Shipping Container ID: Hand delivered NA [ ]

Samples received inside shipping container/cooler/box Yes HC 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 HC
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal HC
3. Cooler temperature: 13.5 °C on-ice NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry HC

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes HC No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 18 Samples @ 2 jars
7. Containers received: 18 X 60mL jar 18 X 1000mL jar

8. Sample holding times exceeded? NA [ ] Yes [ ] No HC
9. Samples have:
   HC tape
   HC custody seals
   ___ hazard labels
   HC appropriate sample labels
10. Matrix:
    HC A (FLT, Wipe, Solid, Soil)
    ___ S (Air, Niosh 7400)
    ___ I (Water)
    ___ T (Biological, Ni-63)
11. Samples:
    HC are in good condition
    ___ are broken
    ___ Other
    ___ are leaking
    ___ have air bubbles (Only for samples requiring no head space)
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA HC
    (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 :

13. Were any anomalies identified in sample receipt? Yes HC No [ ]
14. Description of anomalies (include sample numbers): NA [ ] SAF and COC #'s do not match

LS-023, Rev. 14, 06/11 See over for additional information.

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

16. Additional Information:_____

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

Sample Custodian: Haylee Carter Date: ~~6/29/1015~~ HC 6/29/11 6/29/11@1015

Client Informed on_____ by_____ Person contacted_____

[ ] No action necessary; process as is

Project Manager [signature] Date 6/29/11

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

6/30/2011 2:49:09 PM

Sample Preparation/Analysis

Balance Id:1120421763

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AX Gamma Prp PRP003/GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/14/2011

Sep1 DT/Tm Tech:

Batch: 1180127 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1180127 AXTA, 1180132 DWEA,

Prep Tech: ,SannohS

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MKKAP-1-AC J1F290429-1-SAMP 06/28/2011 09:45		AmtRec: 1X60MLAG;1XLP	368.40g,in	368.40g #Containers: 2		S200	200	614 Scr:	0610 Alpha:	7/1/4 Beta:	
2 MKKAP-1-AD-X J1F290429-1-DUP 06/28/2011 09:45		AmtRec: 1X60MLAG;1XLP	389.30g,in	389.30g #Containers: 2				67 Scr:	0610 Alpha:	Beta:	
3 MKKAX-1-AC J1F290429-2-SAMP 06/28/2011 09:50		AmtRec: 1X60MLAG;1XLP	392.40g,in	392.40g #Containers: 2				610 Scr:	0611 Alpha:	Beta:	
4 MKKA1-1-AC J1F290429-3-SAMP 06/28/2011 09:55		AmtRec: 1X60MLAG;1XLP	406.00g,in	406.00g #Containers: 2				65 Scr:	0934 Alpha:	7/1/15 Beta:	
5 MKKA4-1-AC J1F290429-4-SAMP 06/28/2011 10:00		AmtRec: 1X60MLAG;1XLP	349.50g,in	349.50g #Containers: 2				611 Scr:	0934 Alpha:	Beta:	
6 MKKA7-1-AC J1F290429-5-SAMP 06/28/2011 10:05		AmtRec: 1X60MLAG;1XLP	347.30g,in	347.30g #Containers: 2				614 Scr:	0934 Alpha:	Beta:	
7 MKKCA-1-AC J1F290429-6-SAMP 06/28/2011 10:20		AmtRec: 1X60MLAG;1XLP	360.50g,in	360.50g #Containers: 2				67 Scr:	0935 Alpha:	Beta:	

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46

6/30/2011 2:49:11 PM

Sample Preparation/Analysis

Balance Id:1120421763

127642, Washington Closure Hanford LLC ,
Bechtel Hanford, Inc.

AX Gamma Prp PRP003/GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/14/2011

Sep1 DT/Tm Tech:

Batch: 1180127 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,SannohS

TestAmerica Laboratories, Inc.

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MKKCE-1-AC			310.40g,in	310.40g		S200	200	610	0935	7/1/11	
J1F290429-7-SAMP											
06/28/2011 10:35			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:
9 MKKCH-1-AC			371.10g,in	371.10g				613	0935		
J1F290429-8-SAMP											
06/28/2011 10:45			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:
10 MKKCL-1-AC			385.50g,in	385.50g				610	1707	7/1/11am	
J1F290429-9-SAMP											
06/28/2011 10:50			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:
11 MKKCP-1-AC			351.40g,in	351.40g				67	1708		
J1F290429-10-SAMP											
06/28/2011 11:00			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:
12 MKKCT-1-AC			374.30g,in	374.30g				614	1708		
J1F290429-11-SAMP											
06/28/2011 11:10			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:
13 MKKC4-1-AC			384.50g,in	384.50g				610	1677	7/1/am	
J1F290429-12-SAMP											
06/28/2011 11:15			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:
14 MKKC8-1-AC			297.20g,in	297.20g				67	1678		
J1F290429-13-SAMP											
06/28/2011 10:35			AmtRec: 1X60MLAG;1XLP	#Containers: 2				Scr:	Alpha:		Beta:

6/30/2011 2:49:12 PM

Sample Preparation/Analysis

Balance Id:1120421763

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

AX Gamma Prp PRP003/GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 07/14/2011

Sep1 DT/Tm Tech:

Batch: 1180127 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,SannohS

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 MKKDF-1-AC J1F290429-14-SAMP 06/28/2011 12:20		AmtRec: 1X60MLAG;1XLP	352.10g,in #Containers: 2	352.10g		S200	200	G14 Scr:	1138 Alpha:	7/1/AM Beta:	
16 MKKDJ-1-AC J1F290429-15-SAMP 06/28/2011 12:35		AmtRec: 1X60MLAG;1XLP	341.70g,in #Containers: 2	341.70g				G10 Scr:	2047 Alpha:	7/1/1100 Beta:	
17 MKKDN-1-AC J1F290429-16-SAMP 06/28/2011 12:50		AmtRec: 1X60MLAG;1XLP	356.80g,in #Containers: 2	356.80g				G7 Scr:	2048 Alpha:	Beta:	
18 MKKDQ-1-AC J1F290429-17-SAMP 06/28/2011 12:55		AmtRec: 1X60MLAG;1XLP	367.60g,in #Containers: 2	367.60g				G14 Scr:	2048 Alpha:	Beta:	
19 MKKDR-1-AC J1F290429-18-SAMP 06/28/2011 12:20		AmtRec: 1X60MLAG;1XLP	348.10g,in #Containers: 2	348.10g				G13 Scr:	1213 Alpha:	7/2/1AM Beta:	
20 MKKKP-1-AA-B J1F290000-127-BLK 06/29/2011 14:13 pd		AmtRec:	348.00g,in #Containers: 1	348.00g				G10 Scr:	1214 Alpha:	Beta:	
21 MKKKP-1-AC-C J1F290000-127-LCS 06/29/2011 14:13 pd		AmtRec:	350.10g,in #Containers: 1	350.10g	qc20009 08/04/09,pd 09/01/09,r			G2 Scr:	1214 Alpha:	Beta:	

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6/30/2011 2:49:13 PM

Sample Preparation/Analysis

AX Gamma Prp PRP003/GAM001
TA Gamma by HPGE
5I CLIENT: HANFORD

Balance Id:1120373922
Pipet #: _____

AnalyDueDate: 07/14/2011

Sep1 DT/Tm Tech:

Batch: 1180127 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,SannohS

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

Comments:

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27038

MKKAP1AC-SAMP Constituent List:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:

MKKKP1AA-BLK:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:

MKKKP1AC-LCS:

Cs-137	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35	Cs-137DA	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
K-40	RDL:--	pCi/g	LCL:70	UCL:130	RPD:35	Ra-226	RDL:0.1	pCi/g	LCL:70	UCL:130	RPD:35
RA-228	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35	RA-228DA	RDL:0.2	pCi/g	LCL:70	UCL:130	RPD:35
U-238	RDL:	pCi/g	LCL:70	UCL:130	RPD:35						

MKKAP1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MKKKP1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MKKKP1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

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7/5/2011 2:52:15 PM

ICOC Fraction Transfer/Status Report

ByDate: 7/5/2010, 7/10/2011, Batch: '1180127', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1180127						
AC		**Rev1C**	**SannohS**	6/30/2011 9:14:39		
SC			MauclerIS	IsBatched	6/29/2011 2:13:45 PM	ICOC_RADCALC v4.8.49
SC			SannohS	InPrep	6/30/2011 9:14:39 AM	RL-GAM-001 REVISION 1
SC			ClarkR	InCnt1	6/30/2011 2:54:17 PM	RL-CI-007 REVISION 1
SC			ClarkR	CalcC	7/2/2011 3:37:27 PM	RL-CI-007 REVISION 1
SC			nortonj	Rev1C	7/5/2011 2:51:54 PM	RL-DR-001 Rev 2
AC			**ClarkR**	6/30/2011 2:54:17 PM		
AC			**ClarkR**	7/2/2011 3:37:27 PM		
AC			**nortonj**	7/5/2011 2:51:54 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 4

ICOCFractions v4.8.44

6/29/2011 1:35:47 PM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC , DW Alkaline Digestion by method 3060A
Bechtel Hanford, Inc. EA Chromium, Hexavalent (7196A)

AnalyDueDate: 07/14/2011 5I CLIENT: HANFORD

Batch: 1180132 SOIL mg/kg PM, Quote: RW2, 27038

SEQ Batch, Test: None All Tests: 1180127 AXTA, 1180132 DWEA,

Balance Id: J01148
Pipet #:
Sep1 DT/Tm Tech: 239 240
Sep2 DT/Tm Tech:
Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MKKAP-1-AA J1F290429-1-SAMP 06/28/2011 09:45		2.5173 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
2 MKKAP-1-AE-S J1F290429-1-MS 06/28/2011 09:45		2.5132 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
3 MKKAP-1-AF-X J1F290429-1-DUP 06/28/2011 09:45		2.5058 / phcrosy: 2.5036 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
4 MKKAX-1-AA J1F290429-2-SAMP 06/28/2011 09:50		2.5057 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
5 MKKA1-1-AA J1F290429-3-SAMP 06/28/2011 09:55		2.5163 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
6 MKKA4-1-AA J1F290429-4-SAMP 06/28/2011 10:00		2.5142 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
7 MKKA7-1-AA J1F290429-5-SAMP 06/28/2011 10:05		2.5095 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:

6/29/2011 1:35:48 PM

Sample Preparation/Analysis

Balance Id:

127642, Washington Closure Hanford LLC , Bechtel Hanford, Inc.

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)

Pipet #:

AnalyDueDate: 07/14/2011

5I CLIENT: HANFORD

Sep1 DT/Tm Tech:

Batch: 1180132 SOIL mg/kg PM, Quote: RW2, 27038

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MKKCA-1-AA J1F290429-6-SAMP 06/28/2011 10:20		2.5075 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
9 MKKCE-1-AA J1F290429-7-SAMP 06/28/2011 10:35		2.5035 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
10 MKKCH-1-AA J1F290429-8-SAMP 06/28/2011 10:45		2.5083 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
11 MKKCL-1-AA J1F290429-9-SAMP 06/28/2011 10:50		2.5168 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
12 MKKCP-1-AA J1F290429-10-SAMP 06/28/2011 11:00		2.5009 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
13 MKKCT-1-AA J1F290429-11-SAMP 06/28/2011 11:10		2.5128 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
14 MKKC4-1-AA J1F290429-12-SAMP 06/28/2011 11:15		2.5055 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:

Test America Laboratories, Inc.

6/29/2011 1:35:48 PM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC ,
Bechtel Hanford, Inc.

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

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

AnalyDueDate: 07/14/2011

Batch: 1180132 SOIL mg/kg PM, Quote: RW2, 27038
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 MKKC8-1-AA J1F290429-13-SAMP 06/28/2011 10:35		2.5021 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
16 MKKDF-1-AA J1F290429-14-SAMP 06/28/2011 12:20		2.5102 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
17 MKKDJ-1-AA J1F290429-15-SAMP 06/28/2011 12:35		2.5095 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
18 MKKDN-1-AA J1F290429-16-SAMP 06/28/2011 12:50		2.5042 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
19 MKKDQ-1-AA J1F290429-17-SAMP 06/28/2011 12:55		2.5072 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
20 MKKDR-1-AA J1F290429-18-SAMP 06/28/2011 12:20		2.5020 AmtRec: 1X60MLAG;1XLP	#Containers: 2					Scr:	Alpha:	Beta:
21 MKKL9-1-AA-B J1F290000-132-BLK 06/29/2011 13:35 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

6/29/2011 1:35:49 PM

Sample Preparation/Analysis

DW Alkaline Digestion by method 3060A
EA Chromium, Hexavalent (7196A)
5I CLIENT: HANFORD

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

AnalyDueDate: 07/14/2011

Batch: 1180132 mg/kg
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
22 MKKL9-1-AC-C J1F290000-132-LCS 06/29/2011 13:35 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments:

All Clients for Batch:
127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. , RW2, 27038

MKKAP1AA-SAMP Constituent List:

MKKAP1AE-MS Constituent List:

MKKL91AA-BLK:

MKKL91AC-LCS:

MKKAP1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MKKAP1AE-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MKKL91AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MKKL91AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-17547-1

SDG Number: J01148

Job Description: SAF# RC-217

For:
Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner

RECEIVED JUL 2011

Approved for release.
Kae E Yoder
Project Manager II
7/14/2011 10:41 AM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
07/14/2011

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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Table of Contents

Cover Title Page 1

Report Narrative 3

Data Qualifiers 5

Method Summary 6

Method / Analyst Summary 7

Sample Summary 8

Sample Results 9

Sample Datasheets 10

QC Results 48

Qc Association Summary 49

Qc Reports 54

Client Chain of Custody 61

Sample Receipt Checklist 65

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-17547-1

SDG #: J01148
SAF#: RC-217

Date SDG Closed: June 30, 2011
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1JWL2	280-17547-1	6010/7471	6010B/7471A
J1JWL3	280-17547-2	6010/7471	6010B/7471A
J1JWL4	280-17547-3	6010/7471	6010B/7471A
J1JWL5	280-17547-4	6010/7471	6010B/7471A
J1JWL6	280-17547-5	6010/7471	6010B/7471A
J1JWL7	280-17547-6	6010/7471	6010B/7471A
J1JWL8	280-17547-7	6010/7471	6010B/7471A
J1JWL9	280-17547-8	6010/7471	6010B/7471A
J1JWM0	280-17547-9	6010/7471	6010B/7471A
J1JWM1	280-17547-10	6010/7471	6010B/7471A
J1JWM2	280-17547-11	6010/7471	6010B/7471A
J1JWM3	280-17547-12	6010/7471	6010B/7471A
J1JWM4	280-17547-13	6010/7471	6010B/7471A
J1JWM5	280-17547-14	6010/7471	6010B/7471A
J1JWM6	280-17547-15	6010/7471	6010B/7471A
J1JWM7	280-17547-16	6010/7471	6010B/7471A
J1JWM8	280-17547-17	6010/7471	6010B/7471A
J1JWM9	280-17547-18	6010/7471	6010B/7471A
J1JWN0	280-17547-19	6010/7471	6010B/7471A

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. 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 signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

The results, RLs and MDLs included in this report have been adjusted for dry weight, as appropriate.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 6/30/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.2 C.

TOTAL METALS - SW846 6010B/7471A

Serial dilution of a digestate in batch 280-74993 indicates that physical and chemical interferences are present for Cobalt and Zinc. Results have been flagged with an "X".

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1JWL2; therefore, control limits are not applicable.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Lab Section	Qualifier	Description
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
General Chemistry		
	U	Analyzed for but not detected.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Method	Analyst	Analyst ID
SW846 6010B	Harre, John K	JKH
SW846 7471A	Niman, Katie M	KMN
ASTM D-2216	Gomer, Matthew R	MRG

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-17547-1	J1JWL2	Solid	06/28/2011 0945	06/30/2011 0930
280-17547-2	J1JWL3	Solid	06/28/2011 0950	06/30/2011 0930
280-17547-3	J1JWL4	Solid	06/28/2011 0955	06/30/2011 0930
280-17547-4	J1JWL5	Solid	06/28/2011 1000	06/30/2011 0930
280-17547-5	J1JWL6	Solid	06/28/2011 1005	06/30/2011 0930
280-17547-6	J1JWL7	Solid	06/28/2011 1020	06/30/2011 0930
280-17547-7	J1JWL8	Solid	06/28/2011 1035	06/30/2011 0930
280-17547-8	J1JWL9	Solid	06/28/2011 1045	06/30/2011 0930
280-17547-9	J1JWM0	Solid	06/28/2011 1050	06/30/2011 0930
280-17547-10	J1JWM1	Solid	06/28/2011 1100	06/30/2011 0930
280-17547-11	J1JWM2	Solid	06/28/2011 1110	06/30/2011 0930
280-17547-12	J1JWM3	Solid	06/28/2011 1115	06/30/2011 0930
280-17547-13FD	J1JWM4	Solid	06/28/2011 1035	06/30/2011 0930
280-17547-14	J1JWM5	Solid	06/28/2011 1220	06/30/2011 0930
280-17547-15	J1JWM6	Solid	06/28/2011 1235	06/30/2011 0930
280-17547-16	J1JWM7	Solid	06/28/2011 1250	06/30/2011 0930
280-17547-17	J1JWM8	Solid	06/28/2011 1255	06/30/2011 0930
280-17547-18FD	J1JWM9	Solid	06/28/2011 1220	06/30/2011 0930
280-17547-19EB	J1JWN0	Solid	06/28/2011 1105	06/30/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL2**

Lab Sample ID: 280-17547-1
Client Matrix: Solid
% Moisture: 0.8

Date Sampled: 06/28/2011 0945
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.15 g
Analysis Date:	07/08/2011 1512			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6890		1.4	4.4
Antimony		0.33	U	0.33	0.53
Arsenic		2.3		0.58	0.88
Barium		59.6		0.067	0.44
Beryllium		0.12	B	0.029	0.18
Boron		1.4	B	0.86	1.8
Cadmium		0.057	B	0.036	0.18
Calcium		4000		12.4	43.8
Chromium		9.5		0.051	0.18
Cobalt		6.3	X	0.088	0.88
Copper		11.4		0.19	0.88
Iron		16900		3.3	4.4
Lead		4.3		0.24	0.44
Magnesium		3680		3.2	17.5
Manganese		256		0.088	0.88
Molybdenum		0.23	U	0.23	1.8
Nickel		9.4		0.11	3.5
Potassium		1200		35.9	263
Selenium		0.75	U	0.75	0.88
Silicon		367		5.0	8.8
Silver		0.14	U	0.14	0.18
Sodium		234		51.7	105
Vanadium		41.2		0.082	1.8
Zinc		34.3	X	0.35	0.88

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2246			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0076	B	0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL3**

Lab Sample ID: 280-17547-2
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/28/2011 0950
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.15 g
Analysis Date:	07/08/2011 1522			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6470		1.4	4.4
Antimony		0.34	U	0.34	0.53
Arsenic		2.1		0.58	0.88
Barium		57.1		0.067	0.44
Beryllium		0.13	B	0.029	0.18
Boron		0.98	B	0.87	1.8
Cadmium		0.070	B	0.036	0.18
Calcium		3470		12.5	44.2
Chromium		8.5		0.051	0.18
Cobalt		5.9	X	0.088	0.88
Copper		9.4		0.19	0.88
Iron		15900		3.4	4.4
Lead		3.7		0.24	0.44
Magnesium		3710		3.3	17.7
Manganese		250		0.088	0.88
Molybdenum		0.23	U	0.23	1.8
Nickel		10		0.11	3.5
Potassium		1130		36.3	265
Selenium		0.76	U	0.76	0.88
Silicon		333		5.0	8.8
Silver		0.14	U	0.14	0.18
Sodium		180		52.2	106
Vanadium		37.5		0.083	1.8
Zinc		32.8	X	0.35	0.88

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	07/12/2011 2252			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0065	B	0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL4**

Lab Sample ID: 280-17547-3
Client Matrix: Solid
% Moisture: 15.3

Date Sampled: 06/28/2011 0955
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	07/08/2011 1532			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6130		1.7	5.5
Antimony		0.42	U	0.42	0.66
Arsenic		2.3		0.72	1.1
Barium		59.2		0.083	0.55
Beryllium		0.096	B	0.036	0.22
Boron		1.1	B	1.1	2.2
Cadmium		0.075	B	0.045	0.22
Calcium		4660		15.4	54.7
Chromium		8.0		0.063	0.22
Cobalt		6.3	X	0.11	1.1
Copper		10		0.24	1.1
Iron		16900		4.2	5.5
Lead		6.4		0.30	0.55
Magnesium		3590		4.0	21.9
Manganese		249		0.11	1.1
Molybdenum		0.28	U	0.28	2.2
Nickel		8.6		0.13	4.4
Potassium		1060		44.8	328
Selenium		0.94	U	0.94	1.1
Silicon		427		6.2	10.9
Silver		0.17	U	0.17	0.22
Sodium		222		64.5	131
Vanadium		44.4		0.10	2.2
Zinc		34.6	X	0.44	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2255			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0093	B	0.0061	0.019

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL5**

Lab Sample ID: 280-17547-4
Client Matrix: Solid
% Moisture: 23.9

Date Sampled: 06/28/2011 1000
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	07/08/2011 1543			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5870		2.0	6.3
Antimony		0.48	U	0.48	0.76
Arsenic		2.0		0.83	1.3
Barium		82.4		0.096	0.63
Beryllium		0.14	B	0.042	0.25
Boron		3.0		1.2	2.5
Cadmium		0.078	B	0.052	0.25
Calcium		4290		17.8	63.2
Chromium		7.5		0.073	0.25
Cobalt		5.8	X	0.13	1.3
Copper		12.3		0.27	1.3
Iron		14300		4.8	6.3
Lead		5.5		0.34	0.63
Magnesium		3520		4.7	25.3
Manganese		216		0.13	1.3
Molybdenum		0.33	U	0.33	2.5
Nickel		10.0		0.16	5.1
Potassium		1160		51.8	379
Selenium		1.1	U	1.1	1.3
Silicon		342		7.2	12.6
Silver		0.20	U	0.20	0.25
Sodium		243		74.5	152
Vanadium		34.2		0.12	2.5
Zinc		33.4	X	0.50	1.3

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	07/12/2011 2257			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0067	0.021

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL6**

Lab Sample ID: 280-17547-5
Client Matrix: Solid
% Moisture: 17.9

Date Sampled: 06/28/2011 1005
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	07/08/2011 1545			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7320		1.9	6.0
Antimony		0.46	U	0.46	0.72
Arsenic		2.5		0.80	1.2
Barium		87.0		0.092	0.60
Beryllium		0.17	B	0.040	0.24
Boron		2.8		1.2	2.4
Cadmium		0.089	B	0.049	0.24
Calcium		6210		17.0	60.3
Chromium		9.9		0.070	0.24
Cobalt		6.1	X	0.12	1.2
Copper		11.8		0.26	1.2
Iron		15500		4.6	6.0
Lead		5.4		0.33	0.60
Magnesium		4270		4.5	24.1
Manganese		253		0.12	1.2
Molybdenum		0.31	U	0.31	2.4
Nickel		10.1		0.15	4.8
Potassium		1370		49.5	362
Selenium		1.0	U	1.0	1.2
Silicon		463		6.8	12.1
Silver		0.19	U	0.19	0.24
Sodium		300		71.2	145
Vanadium		35.1		0.11	2.4
Zinc		34.2	X	0.48	1.2

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	07/12/2011 2304			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.024		0.0066	0.020

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL7**

Lab Sample ID: 280-17547-6
Client Matrix: Solid
% Moisture: 19.6

Date Sampled: 06/28/2011 1020
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.09 g
Analysis Date:	07/08/2011 1547			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6190		1.8	5.7
Antimony		0.43	U	0.43	0.69
Arsenic		2.5		0.75	1.1
Barium		69.1		0.087	0.57
Beryllium		0.14	B	0.038	0.23
Boron		2.5		1.1	2.3
Cadmium		0.092	B	0.047	0.23
Calcium		5190		16.1	57.1
Chromium		11.0		0.066	0.23
Cobalt		5.9	X	0.11	1.1
Copper		13.3		0.25	1.1
Iron		15000		4.3	5.7
Lead		5.4		0.31	0.57
Magnesium		3640		4.2	22.8
Manganese		237		0.11	1.1
Molybdenum		0.30	U	0.30	2.3
Nickel		8.9		0.14	4.6
Potassium		1070		46.8	343
Selenium		0.98	U	0.98	1.1
Silicon		376		6.5	11.4
Silver		0.18	U	0.18	0.23
Sodium		205		67.4	137
Vanadium		39.7		0.11	2.3
Zinc		39.6	X	0.45	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2306			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0065	0.020

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL8**

Lab Sample ID: 280-17547-7
Client Matrix: Solid
% Moisture: 0.8

Date Sampled: 06/28/2011 1035
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	07/08/2011 1550			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6930		1.3	4.2
Antimony		0.32	U	0.32	0.51
Arsenic		2.5		0.56	0.85
Barium		71.5		0.064	0.42
Beryllium		0.15	B	0.028	0.17
Boron		2.0		0.83	1.7
Cadmium		0.10	B	0.035	0.17
Calcium		5490		11.9	42.4
Chromium		13.8		0.049	0.17
Cobalt		5.8	X	0.085	0.85
Copper		11.0		0.18	0.85
Iron		15100		3.2	4.2
Lead		4.8		0.23	0.42
Magnesium		4230		3.1	16.9
Manganese		238		0.085	0.85
Molybdenum		0.22	U	0.22	1.7
Nickel		10.2		0.10	3.4
Potassium		1330		34.7	254
Selenium		0.73	U	0.73	0.85
Silicon		319		4.8	8.5
Silver		0.14	U	0.14	0.17
Sodium		244		50.0	102
Vanadium		34.3		0.080	1.7
Zinc		35.0	X	0.34	0.85

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	07/12/2011 2309			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0079	B	0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWL9**

Lab Sample ID: 280-17547-8
Client Matrix: Solid
% Moisture: 20.4

Date Sampled: 06/28/2011 1045
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	07/08/2011 1552			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6860		1.7	5.4
Antimony		0.41	U	0.41	0.64
Arsenic		2.2		0.71	1.1
Barium		67.3		0.082	0.54
Beryllium		0.13	B	0.035	0.21
Boron		2.8		1.1	2.1
Cadmium		0.12	B	0.044	0.21
Calcium		4310		15.1	53.7
Chromium		17.3		0.062	0.21
Cobalt		6.0	X	0.11	1.1
Copper		12.3		0.23	1.1
Iron		16500		4.1	5.4
Lead		5.6		0.29	0.54
Magnesium		3850		4.0	21.5
Manganese		242		0.11	1.1
Molybdenum		0.31	B	0.28	2.1
Nickel		9.9		0.13	4.3
Potassium		1130		44.0	322
Selenium		0.92	U	0.92	1.1
Silicon		406		6.1	10.7
Silver		0.17	U	0.17	0.21
Sodium		285		63.4	129
Vanadium		38.8		0.10	2.1
Zinc		41.0	X	0.43	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2311			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.016	B	0.0065	0.020

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM0**

Lab Sample ID: 280-17547-9
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/28/2011 1050
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	07/08/2011 1555			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6440		1.5	4.8
Antimony		0.37	U	0.37	0.58
Arsenic		2.0		0.64	0.96
Barium		86.4		0.073	0.48
Beryllium		0.14	B	0.032	0.19
Boron		2.4		0.95	1.9
Cadmium		0.075	B	0.040	0.19
Calcium		4100		13.6	48.2
Chromium		10.3		0.056	0.19
Cobalt		5.9	X	0.096	0.96
Copper		11.2		0.21	0.96
Iron		15600		3.7	4.8
Lead		5.4		0.26	0.48
Magnesium		3780		3.6	19.3
Manganese		248		0.096	0.96
Molybdenum		0.25	U	0.25	1.9
Nickel		9.5		0.12	3.9
Potassium		1140		39.6	289
Selenium		0.83	U	0.83	0.96
Silicon		300		5.5	9.6
Silver		0.15	U	0.15	0.19
Sodium		206		56.9	116
Vanadium		39.7		0.091	1.9
Zinc		34.4	X	0.38	0.96

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	07/12/2011 2313			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018		0.0055	0.017

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM1**

Lab Sample ID: 280-17547-10
Client Matrix: Solid
% Moisture: 2.1

Date Sampled: 06/28/2011 1100
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Analysis Date:	07/08/2011 1557			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7410		1.4	4.6
Antimony		0.35	U	0.35	0.56
Arsenic		1.9		0.61	0.93
Barium		66.8		0.071	0.46
Beryllium		0.16	B	0.031	0.19
Boron		1.1	B	0.91	1.9
Cadmium		0.059	B	0.038	0.19
Calcium		3430		13.1	46.4
Chromium		9.1		0.054	0.19
Cobalt		6.3	X	0.093	0.93
Copper		11.5		0.20	0.93
Iron		16400		3.5	4.6
Lead		4.3		0.25	0.46
Magnesium		3850		3.4	18.6
Manganese		255		0.093	0.93
Molybdenum		0.24	U	0.24	1.9
Nickel		10.4		0.11	3.7
Potassium		1440		38.1	279
Selenium		0.80	U	0.80	0.93
Silicon		338		5.3	9.3
Silver		0.15	U	0.15	0.19
Sodium		203		54.8	111
Vanadium		37.2		0.087	1.9
Zinc		32.6	X	0.37	0.93

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	07/12/2011 2316			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.011	B	0.0056	0.017

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM2**

Lab Sample ID: 280-17547-11
Client Matrix: Solid
% Moisture: 1.0

Date Sampled: 06/28/2011 1110
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	07/08/2011 1559			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5990		1.4	4.5
Antimony		0.34	U	0.34	0.54
Arsenic		1.8		0.59	0.89
Barium		96.4		0.068	0.45
Beryllium		0.13	B	0.030	0.18
Boron		4.4		0.88	1.8
Cadmium		0.091	B	0.037	0.18
Calcium		4310		12.6	44.7
Chromium		8.5		0.052	0.18
Cobalt		5.9	X	0.089	0.89
Copper		10.2		0.19	0.89
Iron		15200		3.4	4.5
Lead		5.7		0.24	0.45
Magnesium		3710		3.3	17.9
Manganese		227		0.089	0.89
Molybdenum		0.23	U	0.23	1.8
Nickel		9.6		0.11	3.6
Potassium		1030		36.7	268
Selenium		0.77	U	0.77	0.89
Silicon		328		5.1	8.9
Silver		0.14	U	0.14	0.18
Sodium		242		52.8	107
Vanadium		38.6		0.084	1.8
Zinc		33.1	X	0.36	0.89

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	07/12/2011 2318			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0053	0.016

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM3**

Lab Sample ID: 280-17547-12
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/28/2011 1115
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	07/08/2011 1611			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7360		1.5	4.9
Antimony		0.37	U	0.37	0.59
Arsenic		2.5		0.65	0.98
Barium		73.2		0.074	0.49
Beryllium		0.18	B	0.032	0.20
Boron		2.5		0.96	2.0
Cadmium		0.070	B	0.040	0.20
Calcium		4250		13.8	48.9
Chromium		10.2		0.057	0.20
Cobalt		6.3	X	0.098	0.98
Copper		12.5		0.21	0.98
Iron		16800		3.7	4.9
Lead		5.8		0.26	0.49
Magnesium		3980		3.6	19.6
Manganese		266		0.098	0.98
Molybdenum		0.25	U	0.25	2.0
Nickel		10.3		0.12	3.9
Potassium		1400		40.1	293
Selenium		0.84	U	0.84	0.98
Silicon		289		5.5	9.8
Silver		0.16	U	0.16	0.20
Sodium		205		57.7	117
Vanadium		41.3		0.092	2.0
Zinc		34.5	X	0.39	0.98

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	07/12/2011 2320			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0098	B	0.0055	0.017

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM4**

Lab Sample ID: 280-17547-13FD
Client Matrix: Solid
% Moisture: 11.1

Date Sampled: 06/28/2011 1035
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.03 g
Analysis Date:	07/08/2011 1613			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7110		1.7	5.5
Antimony		0.41	U	0.41	0.66
Arsenic		2.5		0.72	1.1
Barium		76.7		0.083	0.55
Beryllium		0.18	B	0.036	0.22
Boron		2.0	B	1.1	2.2
Cadmium		0.10	B	0.045	0.22
Calcium		5120		15.4	54.6
Chromium		13.9		0.063	0.22
Cobalt		5.9	X	0.11	1.1
Copper		12.5		0.24	1.1
Iron		15800		4.1	5.5
Lead		5.5		0.29	0.55
Magnesium		4150		4.0	21.8
Manganese		261		0.11	1.1
Molybdenum		0.28	U	0.28	2.2
Nickel		9.9		0.13	4.4
Potassium		1290		44.8	328
Selenium		0.94	U	0.94	1.1
Silicon		380		6.2	10.9
Silver		0.17	U	0.17	0.22
Sodium		237		64.4	131
Vanadium		37.2		0.10	2.2
Zinc		37.8	X	0.43	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2322			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.010	B	0.0058	0.018

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM5**

Lab Sample ID: 280-17547-14
Client Matrix: Solid
% Moisture: 17.7

Date Sampled: 06/28/2011 1220
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	07/08/2011 1615			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6400		1.8	5.7
Antimony		0.44	U	0.44	0.69
Arsenic		2.1		0.76	1.1
Barium		58.7		0.087	0.57
Beryllium		0.16	B	0.038	0.23
Boron		1.2	B	1.1	2.3
Cadmium		0.085	B	0.047	0.23
Calcium		3430		16.2	57.3
Chromium		16.9		0.066	0.23
Cobalt		5.0	X	0.11	1.1
Copper		10.5		0.25	1.1
Iron		13800		4.4	5.7
Lead		4.6		0.31	0.57
Magnesium		3790		4.2	22.9
Manganese		217		0.11	1.1
Molybdenum		0.30	U	0.30	2.3
Nickel		10.2		0.14	4.6
Potassium		1110		47.0	344
Selenium		0.99	U	0.99	1.1
Silicon		353		6.5	11.5
Silver		0.18	U	0.18	0.23
Sodium		199		67.6	137
Vanadium		32.6		0.11	2.3
Zinc		31.9	X	0.46	1.1

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2325			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.059		0.0063	0.019

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM6**

Lab Sample ID: 280-17547-15
Client Matrix: Solid
% Moisture: 0.4

Date Sampled: 06/28/2011 1235
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	07/08/2011 1617			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6630		1.5	4.8
Antimony		0.37	U	0.37	0.58
Arsenic		2.3		0.64	0.97
Barium		55.6		0.073	0.48
Beryllium		0.16	B	0.032	0.19
Boron		0.95	U	0.95	1.9
Cadmium		0.098	B	0.040	0.19
Calcium		3360		13.6	48.3
Chromium		20.7		0.056	0.19
Cobalt		5.2	X	0.097	0.97
Copper		10.7		0.21	0.97
Iron		14100		3.7	4.8
Lead		4.7		0.26	0.48
Magnesium		3910		3.6	19.3
Manganese		231		0.097	0.97
Molybdenum		0.25	U	0.25	1.9
Nickel		10.6		0.12	3.9
Potassium		1070		39.6	290
Selenium		0.83	U	0.83	0.97
Silicon		293		5.5	9.7
Silver		0.15	U	0.15	0.19
Sodium		188		57.0	116
Vanadium		33.3		0.091	1.9
Zinc		34.5	X	0.38	0.97

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	07/12/2011 2332			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018		0.0054	0.017

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM7**

Lab Sample ID: 280-17547-16
Client Matrix: Solid
% Moisture: 0.2

Date Sampled: 06/28/2011 1250
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.16 g
Analysis Date:	07/08/2011 1620			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6250		1.3	4.3
Antimony		0.33	U	0.33	0.52
Arsenic		2.4		0.57	0.86
Barium		57.6		0.066	0.43
Beryllium		0.16	B	0.029	0.17
Boron		0.91	B	0.85	1.7
Cadmium		0.075	B	0.035	0.17
Calcium		3370		12.2	43.2
Chromium		15.3		0.050	0.17
Cobalt		5.0	X	0.086	0.86
Copper		11.5		0.19	0.86
Iron		14000		3.3	4.3
Lead		4.5		0.23	0.43
Magnesium		3720		3.2	17.3
Manganese		237		0.086	0.86
Molybdenum		0.22	U	0.22	1.7
Nickel		9.6		0.11	3.5
Potassium		954		35.4	259
Selenium		0.74	U	0.74	0.86
Silicon		297		4.9	8.6
Silver		0.14	U	0.14	0.17
Sodium		198		51.0	104
Vanadium		34.5		0.081	1.7
Zinc		32.0	X	0.34	0.86

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.68 g
Analysis Date:	07/12/2011 2334			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.011	B	0.0049	0.015

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM8**

Lab Sample ID: 280-17547-17
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 06/28/2011 1255
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	07/08/2011 1622			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6190		1.5	4.8
Antimony		0.37	U	0.37	0.58
Arsenic		2.1		0.64	0.96
Barium		54.6		0.073	0.48
Beryllium		0.15	B	0.032	0.19
Boron		0.94	U	0.94	1.9
Cadmium		0.075	B	0.040	0.19
Calcium		3180		13.6	48.2
Chromium		18.9		0.056	0.19
Cobalt		5.0	X	0.096	0.96
Copper		10.7		0.21	0.96
Iron		13800		3.7	4.8
Lead		4.4		0.26	0.48
Magnesium		3690		3.6	19.3
Manganese		224		0.096	0.96
Molybdenum		0.25	U	0.25	1.9
Nickel		9.2		0.12	3.9
Potassium		941		39.5	289
Selenium		0.83	U	0.83	0.96
Silicon		251		5.5	9.6
Silver		0.15	U	0.15	0.19
Sodium		182		56.9	116
Vanadium		33.8		0.091	1.9
Zinc		33.3	X	0.38	0.96

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2336			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.019		0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWM9**

Lab Sample ID: 280-17547-18FD
Client Matrix: Solid
% Moisture: 5.5

Date Sampled: 06/28/2011 1220
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	07/08/2011 1624			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5850		1.5	4.9
Antimony		0.37	U	0.37	0.59
Arsenic		2.2		0.65	0.98
Barium		54.9		0.074	0.49
Beryllium		0.15	B	0.032	0.20
Boron		1.3	B	0.96	2.0
Cadmium		0.075	B	0.040	0.20
Calcium		3630		13.8	49.0
Chromium		13.9		0.057	0.20
Cobalt		5.3	X	0.098	0.98
Copper		11.2		0.21	0.98
Iron		13900		3.7	4.9
Lead		4.3		0.26	0.49
Magnesium		3720		3.6	19.6
Manganese		224		0.098	0.98
Molybdenum		0.25	U	0.25	2.0
Nickel		9.9		0.12	3.9
Potassium		983		40.2	294
Selenium		0.84	U	0.84	0.98
Silicon		288		5.5	9.8
Silver		0.16	U	0.16	0.20
Sodium		175		57.8	118
Vanadium		32.9		0.092	2.0
Zinc		31.6	X	0.39	0.98

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.60 g
Analysis Date:	07/12/2011 2339			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0096	B	0.0058	0.018

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Client Sample ID: **J1JWN0**

Lab Sample ID: 280-17547-19EB
Client Matrix: Solid
% Moisture: 0.0

Date Sampled: 06/28/2011 1105
Date Received: 06/30/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-75944	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	07/08/2011 1626			Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		193		1.4	4.7
Antimony		0.36	U	0.36	0.56
Arsenic		0.73	B	0.62	0.93
Barium		2.6		0.071	0.47
Beryllium		0.054	B	0.031	0.19
Boron		0.92	U	0.92	1.9
Cadmium		0.038	U	0.038	0.19
Calcium		57.6		13.2	46.7
Chromium		0.20		0.054	0.19
Cobalt		0.18	B X	0.093	0.93
Copper		0.22	B	0.20	0.93
Iron		576		3.6	4.7
Lead		0.75		0.25	0.47
Magnesium		30.3		3.5	18.7
Manganese		8.1		0.093	0.93
Molybdenum		0.24	U	0.24	1.9
Nickel		0.22	B	0.11	3.7
Potassium		59.6	B	38.3	280
Selenium		0.80	U	0.80	0.93
Silicon		149		5.3	9.3
Silver		0.15	U	0.15	0.19
Sodium		55.1	U	55.1	112
Vanadium		0.62	B	0.088	1.9
Zinc		1.5	X	0.37	0.93

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Analysis Date:	07/12/2011 2341			Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0048	U	0.0048	0.015

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL2**

Lab Sample ID: 280-17547-1
Client Matrix: Solid

Date Sampled: 06/28/2011 0945
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.82		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL3**

Lab Sample ID: 280-17547-2
Client Matrix: Solid

Date Sampled: 06/28/2011 0950
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL4**

Lab Sample ID: 280-17547-3
Client Matrix: Solid

Date Sampled: 06/28/2011 0955
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	15.3		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL5**

Lab Sample ID: 280-17547-4
Client Matrix: Solid

Date Sampled: 06/28/2011 1000
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	23.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL6**

Lab Sample ID: 280-17547-5
Client Matrix: Solid

Date Sampled: 06/28/2011 1005
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17.9		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL7**

Lab Sample ID: 280-17547-6
Client Matrix: Solid

Date Sampled: 06/28/2011 1020
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	19.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL8**

Lab Sample ID: 280-17547-7
Client Matrix: Solid

Date Sampled: 06/28/2011 1035
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.82		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWL9**

Lab Sample ID: 280-17547-8
Client Matrix: Solid

Date Sampled: 06/28/2011 1045
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	20.4		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM0**

Lab Sample ID: 280-17547-9
Client Matrix: Solid

Date Sampled: 06/28/2011 1050
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.3		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM1**

Lab Sample ID: 280-17547-10
Client Matrix: Solid

Date Sampled: 06/28/2011 1100
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	2.1		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM2**

Lab Sample ID: 280-17547-11
Client Matrix: Solid

Date Sampled: 06/28/2011 1110
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.0		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM3**

Lab Sample ID: 280-17547-12
Client Matrix: Solid

Date Sampled: 06/28/2011 1115
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	1.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM4**

Lab Sample ID: 280-17547-13FD
Client Matrix: Solid

Date Sampled: 06/28/2011 1035
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.1		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM5**

Lab Sample ID: 280-17547-14
Client Matrix: Solid

Date Sampled: 06/28/2011 1220
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17.7		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM6**

Lab Sample ID: 280-17547-15
Client Matrix: Solid

Date Sampled: 06/28/2011 1235
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.42		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM7**

Lab Sample ID: 280-17547-16
Client Matrix: Solid

Date Sampled: 06/28/2011 1250
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.21		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM8**

Lab Sample ID: 280-17547-17
Client Matrix: Solid

Date Sampled: 06/28/2011 1255
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.27		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWM9**

Lab Sample ID: 280-17547-18FD
Client Matrix: Solid

Date Sampled: 06/28/2011 1220
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.5		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

General Chemistry

Client Sample ID: **J1JWN0**

Lab Sample ID: 280-17547-19EB
Client Matrix: Solid

Date Sampled: 06/28/2011 1105
Date Received: 06/30/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.10	U	%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-74799 Analysis Date: 07/01/2011 0737 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-74993					
LCS 280-74993/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-74993/1-A	Method Blank	T	Solid	3050B	
280-17547-1	J1JWL2	T	Solid	3050B	
280-17547-1DU	Duplicate	T	Solid	3050B	
280-17547-1MS	Matrix Spike	T	Solid	3050B	
280-17547-2	J1JWL3	T	Solid	3050B	
280-17547-3	J1JWL4	T	Solid	3050B	
280-17547-4	J1JWL5	T	Solid	3050B	
280-17547-5	J1JWL6	T	Solid	3050B	
280-17547-6	J1JWL7	T	Solid	3050B	
280-17547-7	J1JWL8	T	Solid	3050B	
280-17547-8	J1JWL9	T	Solid	3050B	
280-17547-9	J1JWM0	T	Solid	3050B	
280-17547-10	J1JWM1	T	Solid	3050B	
280-17547-11	J1JWM2	T	Solid	3050B	
280-17547-12	J1JWM3	T	Solid	3050B	
280-17547-13FD	J1JWM4	T	Solid	3050B	
280-17547-14	J1JWM5	T	Solid	3050B	
280-17547-15	J1JWM6	T	Solid	3050B	
280-17547-16	J1JWM7	T	Solid	3050B	
280-17547-17	J1JWM8	T	Solid	3050B	
280-17547-18FD	J1JWM9	T	Solid	3050B	
280-17547-19EB	J1JWN0	T	Solid	3050B	

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-75372					
LCS 280-75372/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-75372/1-A	Method Blank	T	Solid	7471A	
280-17547-1	J1JWL2	T	Solid	7471A	
280-17547-1DU	Duplicate	T	Solid	7471A	
280-17547-1MS	Matrix Spike	T	Solid	7471A	
280-17547-2	J1JWL3	T	Solid	7471A	
280-17547-3	J1JWL4	T	Solid	7471A	
280-17547-4	J1JWL5	T	Solid	7471A	
280-17547-5	J1JWL6	T	Solid	7471A	
280-17547-6	J1JWL7	T	Solid	7471A	
280-17547-7	J1JWL8	T	Solid	7471A	
280-17547-8	J1JWL9	T	Solid	7471A	
280-17547-9	J1JWM0	T	Solid	7471A	
280-17547-10	J1JWM1	T	Solid	7471A	
280-17547-11	J1JWM2	T	Solid	7471A	
280-17547-12	J1JWM3	T	Solid	7471A	
280-17547-13FD	J1JWM4	T	Solid	7471A	
280-17547-14	J1JWM5	T	Solid	7471A	
280-17547-15	J1JWM6	T	Solid	7471A	
280-17547-16	J1JWM7	T	Solid	7471A	
280-17547-17	J1JWM8	T	Solid	7471A	
280-17547-18FD	J1JWM9	T	Solid	7471A	
280-17547-19EB	J1JWN0	T	Solid	7471A	

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-75944					
LCS 280-74993/2-A	Lab Control Sample	T	Solid	6010B	280-74993
MB 280-74993/1-A	Method Blank	T	Solid	6010B	280-74993
280-17547-1	J1JWL2	T	Solid	6010B	280-74993
280-17547-1DU	Duplicate	T	Solid	6010B	280-74993
280-17547-1MS	Matrix Spike	T	Solid	6010B	280-74993
280-17547-2	J1JWL3	T	Solid	6010B	280-74993
280-17547-3	J1JWL4	T	Solid	6010B	280-74993
280-17547-4	J1JWL5	T	Solid	6010B	280-74993
280-17547-5	J1JWL6	T	Solid	6010B	280-74993
280-17547-6	J1JWL7	T	Solid	6010B	280-74993
280-17547-7	J1JWL8	T	Solid	6010B	280-74993
280-17547-8	J1JWL9	T	Solid	6010B	280-74993
280-17547-9	J1JWM0	T	Solid	6010B	280-74993
280-17547-10	J1JWM1	T	Solid	6010B	280-74993
280-17547-11	J1JWM2	T	Solid	6010B	280-74993
280-17547-12	J1JWM3	T	Solid	6010B	280-74993
280-17547-13FD	J1JWM4	T	Solid	6010B	280-74993
280-17547-14	J1JWM5	T	Solid	6010B	280-74993
280-17547-15	J1JWM6	T	Solid	6010B	280-74993
280-17547-16	J1JWM7	T	Solid	6010B	280-74993
280-17547-17	J1JWM8	T	Solid	6010B	280-74993
280-17547-18FD	J1JWM9	T	Solid	6010B	280-74993
280-17547-19EB	J1JWN0	T	Solid	6010B	280-74993

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-76340					
LCS 280-75372/2-A	Lab Control Sample	T	Solid	7471A	280-75372
MB 280-75372/1-A	Method Blank	T	Solid	7471A	280-75372
280-17547-1	J1JWL2	T	Solid	7471A	280-75372
280-17547-1DU	Duplicate	T	Solid	7471A	280-75372
280-17547-1MS	Matrix Spike	T	Solid	7471A	280-75372
280-17547-2	J1JWL3	T	Solid	7471A	280-75372
280-17547-3	J1JWL4	T	Solid	7471A	280-75372
280-17547-4	J1JWL5	T	Solid	7471A	280-75372
280-17547-5	J1JWL6	T	Solid	7471A	280-75372
280-17547-6	J1JWL7	T	Solid	7471A	280-75372
280-17547-7	J1JWL8	T	Solid	7471A	280-75372
280-17547-8	J1JWL9	T	Solid	7471A	280-75372
280-17547-9	J1JWM0	T	Solid	7471A	280-75372
280-17547-10	J1JWM1	T	Solid	7471A	280-75372
280-17547-11	J1JWM2	T	Solid	7471A	280-75372
280-17547-12	J1JWM3	T	Solid	7471A	280-75372
280-17547-13FD	J1JWM4	T	Solid	7471A	280-75372
280-17547-14	J1JWM5	T	Solid	7471A	280-75372
280-17547-15	J1JWM6	T	Solid	7471A	280-75372
280-17547-16	J1JWM7	T	Solid	7471A	280-75372
280-17547-17	J1JWM8	T	Solid	7471A	280-75372
280-17547-18FD	J1JWM9	T	Solid	7471A	280-75372
280-17547-19EB	J1JWN0	T	Solid	7471A	280-75372

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-74799					
280-17547-1	J1JWL2	T	Solid	D-2216	
280-17547-2	J1JWL3	T	Solid	D-2216	
280-17547-3	J1JWL4	T	Solid	D-2216	
280-17547-3DU	Duplicate	T	Solid	D-2216	
280-17547-4	J1JWL5	T	Solid	D-2216	
280-17547-5	J1JWL6	T	Solid	D-2216	
280-17547-6	J1JWL7	T	Solid	D-2216	
280-17547-7	J1JWL8	T	Solid	D-2216	
280-17547-8	J1JWL9	T	Solid	D-2216	
280-17547-9	J1JWM0	T	Solid	D-2216	
280-17547-10	J1JWM1	T	Solid	D-2216	
280-17547-11	J1JWM2	T	Solid	D-2216	
280-17547-12	J1JWM3	T	Solid	D-2216	
280-17547-13FD	J1JWM4	T	Solid	D-2216	
280-17547-14	J1JWM5	T	Solid	D-2216	
280-17547-15	J1JWM6	T	Solid	D-2216	
280-17547-16	J1JWM7	T	Solid	D-2216	
280-17547-17	J1JWM8	T	Solid	D-2216	
280-17547-18FD	J1JWM9	T	Solid	D-2216	
280-17547-19EB	J1JWN0	T	Solid	D-2216	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Method Blank - Batch: 280-74993

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-74993/1-A	Analysis Batch:	280-75944	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	07/08/2011 1508	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.076	U	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lead	0.27	U	0.27	0.50
Magnesium	3.7	U	3.7	20.0
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Lab Control Sample - Batch: 280-74993

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-74993/2-A	Analysis Batch:	280-75944	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	07/08/2011 1510	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	193.7	97	82 - 116	
Antimony	50.0	48.89	98	82 - 110	
Arsenic	100	101.1	101	85 - 110	
Barium	200	202.2	101	87 - 112	
Beryllium	5.00	4.97	99	84 - 114	
Boron	100	96.50	97	81 - 110	
Cadmium	10.0	10.27	103	87 - 110	
Calcium	5000	4939	99	82 - 114	
Chromium	20.0	20.28	101	84 - 114	
Cobalt	50.0	49.57	99	87 - 110	
Copper	25.0	25.42	102	88 - 110	
Iron	100	103.2	103	87 - 120	
Lead	50.0	50.37	101	86 - 110	
Magnesium	5000	4922	98	90 - 110	
Manganese	50.0	50.13	100	88 - 110	
Molybdenum	100	100.6	101	86 - 110	
Nickel	50.0	49.58	99	87 - 110	
Potassium	5000	5053	101	89 - 110	
Selenium	200	199.6	100	83 - 110	
Silicon	1000	192.9	19	10 - 70	
Silver	5.00	5.19	104	87 - 114	
Sodium	5000	5232	105	90 - 112	
Vanadium	50.0	50.78	102	88 - 110	
Zinc	50.0	49.45	99	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Matrix Spike - Batch: 280-74993

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-17547-1	Analysis Batch:	280-75944	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.05 g
Analysis Date:	07/08/2011 1517	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	6890		192	9017	1108	50 - 200	4
Antimony	0.33	U	48.0	28.68	60	20 - 200	
Arsenic	2.3		96.0	91.59	93	76 - 111	
Barium	59.6		192	246.6	97	52 - 159	
Beryllium	0.12	B	4.80	4.53	92	72 - 105	
Boron	1.4	B	96.0	84.90	87	75 - 107	
Cadmium	0.057	B	9.60	9.23	96	40 - 130	
Calcium	4000		4800	9540	115	43 - 165	
Chromium	9.5		19.2	28.28	98	70 - 200	
Cobalt	6.3		48.0	49.84	91	72 - 106	
Copper	11.4		24.0	35.47	100	37 - 187	
Iron	16900		96.0	17590	743	70 - 200	4
Lead	4.3		48.0	47.77	91	70 - 200	
Magnesium	3680		4800	8577	102	64 - 145	
Manganese	256		48.0	316.8	126	40 - 200	4
Molybdenum	0.23	U	96.0	87.48	91	75 - 103	
Nickel	9.4		48.0	53.70	92	61 - 126	
Potassium	1200		4800	5818	96	56 - 172	
Selenium	0.75	U	192	175.7	91	76 - 104	
Silicon	367		960	648.9	29	20 - 200	
Silver	0.14	U	4.80	4.70	98	75 - 141	
Sodium	234		4800	5213	104	78 - 111	
Vanadium	41.2		48.0	89.82	101	50 - 169	
Zinc	34.3		48.0	78.41	92	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Duplicate - Batch: 280-74993

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-17547-1	Analysis Batch:	280-75944	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-74993	Lab File ID:	25A1070811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.11 g
Analysis Date:	07/08/2011 1519	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/07/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	6890		6517	6	40	
Antimony	0.33	U	0.35	NC	40	U
Arsenic	2.3		2.09	10	30	
Barium	59.6		57.36	4	30	
Beryllium	0.12	B	0.128	4	30	B
Boron	1.4	B	1.70	20	30	B
Cadmium	0.057	B	0.0581	2	30	B
Calcium	4000		3969	0.9	30	
Chromium	9.5		8.84	7	40	
Cobalt	6.3		5.97	5	30	
Copper	11.4		10.39	9	30	
Iron	16900		16150	4	40	
Lead	4.3		3.86	10	40	
Magnesium	3680		3617	2	30	
Manganese	256		232.1	10	40	
Molybdenum	0.23	U	0.24	NC	30	U
Nickel	9.4		9.83	4	30	
Potassium	1200		1072	11	40	
Selenium	0.75	U	0.78	NC	30	U
Silicon	367		315.0	15	40	
Silver	0.14	U	0.15	NC	30	U
Sodium	234		278.9	18	30	
Vanadium	41.2		40.98	0.7	30	
Zinc	34.3		32.60	5	40	

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Method Blank - Batch: 280-75372

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-75372/1-A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	07/12/2011 2241	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-75372

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-75372/2-A	Analysis Batch:	280-76340	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	07/12/2011 2243	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.393	94	87 - 111	

Matrix Spike - Batch: 280-75372

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-17547-1	Analysis Batch:	280-76340	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	07/12/2011 2250	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0076	B	0.394	0.427	107	87 - 111	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Duplicate - Batch: 280-75372

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-17547-1	Analysis Batch:	280-76340	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-75372	Lab File ID:	110712TE.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	07/12/2011 2248	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/12/2011 1755				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0076	B	0.00672	12	20	B

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-17547-1
Sdg Number: J01148

Duplicate - Batch: 280-74799

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-17547-3	Analysis Batch:	280-74799	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	07/01/2011 0737	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	15.3	14.0	9	20	

3.2 IRI SC 6/30

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 1 of 4

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code ~~81~~ 8C (JR 6/27/11)	Data Turnaround ~~21 Days~~ 15/15 (JR 6/27/11)		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VER SPA & OB		SAF No. ~~RC-181~~ RC-217 (JR 6/27/11)
Ice Chest No. AFS- 06-002	Field Logbook No. EL-1651-01	COA R00F452000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, Richland (Denver)	Offsite Property No. NA		Bill of Lading/Air Bill No. 7949 2258 8265

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	See item (2) in Special Instructions.								

JR 6/27/11

Sample No.	Matrix *	Sample Date	Sample Time										SPAS
J1JWL2	SOIL	6-28-11	0945	X									1
J1JWL3	SOIL	6-28-11	0950	X									2
J1JWL4	SOIL	6-28-11	0955	X									3
J1JWL5	SOIL	6-28-11	1000	X									4
J1JWL6	SOIL	6-28-11	1005	X									5

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	6-28-11 1315	Jen Russell / JL Russell	6/28/11 1315
Jen Russell / JL Russell	6/28/11 1530	A. Freier / A. Freier (1060, #1)	6-28-11 1530
A. Freier / A. Freier (1060, #1) (WCH)	6-29-11 0900	Fed Ex	
		Gary Bissell	6/30/11 0930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

REVIEWED BY CMB DATE 6/29/11

SDG J01148

REVIEWED BY 6/29/11 DATE 6/29/11 CMB

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 3 of 4

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code ~~8L~~ 8C (JR 6/27/11)	Data Turnaround ~~21 Days~~ 15/15 (JR 6/27/11)		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VER SPA & OB		SAF No. ~~RC-181~~ RC-217 (JR 6/27/11)
Ice Chest No. AFS-06-002	Field Logbook No. EL-1651-01	COA R00F452000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, Richland (Denver)	Offsite Property No. NA		Bill of Lading/Air Bill No. 7949 2258 8265

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196 (6/27/11)	See item (2) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time								SPA
J1JWM2	SOIL	6-28-11	1110	X							11
J1JWM3	SOIL	6-28-11	1115	X							12
J1JWM4	SOIL	6-28-11	1035	X							DUP
J1JWM5	SOIL	6-28-11	1220	X							OB-1
J1JWM6	SOIL	6-28-11	1235	X							OB-2

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	6-28-11 1315	Jen Russell	6/28/11 1315
Jen Russell	6/28/11 1530	A. Freier (1060, #1)	1530 6-28-11
A. Freier (1060, #1)	(WCH) 0900 6-29-11	Fed Ex	
			6/30/11 0930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

SDG J01148

REVIEWED BY CMB DATE 6/29/11

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 2 of 1

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code ~~8L~~ 8C (JR 6/27/11)	Data Turnaround ~~21 Days~~ 15/15 (JR 6/27/11)		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VER SPA & OB		SAF No. JR 6/27/11 ~~RC-181~~ RC-217
Ice Chest No. AFS-06-002	Field Logbook No. EL-1651-01	COA R00F452000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, Richland (Denver)	Offsite Property No. NA		Bill of Lading/Air Bill No. 7949 2258 8265

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196	See item (2) in Special Instructions.								

Sample No.	Matrix *	Sample Date	Sample Time										SPA
J1JWL7	SOIL	6-28-11	1020	X									6
J1JWL8	SOIL	6-28-11	1035	X									7
J1JWL9	SOIL	6-28-11	1045	X									8
J1JWM0	SOIL	6-28-11	1050	X									9
J1JWM1	SOIL	6-28-11	1100	X									10

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David D. Rice	6-28-11 1315	Jen Russell	6/28/11 1315
Jen Russell	6/28/11 1530	A. Freier (1060, #1)	1530 6-28-11
A. Freier (WCH)	6-28-11 0900 1060, #1	Fed Ex	
			6/30/11 0930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

506
J01148

REVIEWED BY CMB
DATE 6/29/11

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-181-017	Page 1 of 1

Collector RICE, DD	Company Contact JL Russell	Telephone No. (509) 380-8093	Project Coordinator KESSNER, JH
Price Code JR 6/27/11 ~~8L~~ 8C	Data Turnaround JR 6/27/11 ~~21 Days~~ 15/15		
Project Designation ARRA 100F Remaining Sites Remediation - Soil Full Protoc	Sampling Location 100-F-45 VER SPA & OB	SAF No. JR 6/27/11 ~~RC-181~~ RC-217	
Ice Chest No. AFS-06-002	Field Logbook No. EL-1651-01	COA R00F452000	Method of Shipment FedEx
Shipped To TestAmerica Incorporated, Richland (Denver)	Offsite Property No. NA	Bill of Lading/Air Bill No. 7949 2258 8265	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4C

Preservation	Cool 4C	Cool 4C	None								
Type of Container	G/P	G/P	G/P								
No. of Container(s)	1	1	1								
Volume	60mL	60mL	1000mL								
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196 JR 6/27/11	See item (2) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time								
J1JWM7	SOIL	6-28-11	1250	X							OB-3
J1JWM8	SOIL	6-29-11	1255	X							OB-4
J1JWM9	SOIL	6-28-11 JR 6/27/11 ~~1035~~	1220	X							DUP
J1JWN0	SOIL	6-29-11	1105	X							EB

CHAIN OF POSSESSION — **Sign/Print Names**

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
David R. Rice	6-28-11 1315	Jen Russell JL Russell	6/28/11 1315
Jen Russell JL Russell	6/28/11 1530	1060, #1 A. Freier A. Freier	1530 6-28-11
A. Freier A. Freier 1060, #1	WCH 0900 6-29-11	Fed Ex	
		[illegible]	6/30/11 0930

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Close-out List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}

(2) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155}

SDG J01148

REVIEWED BY CMB DATE 10/29/11

Matrix *

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

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 -601DTR -Solid

Analytical Due:

Report Due: ~~Rush~~ 7/14/11 (Rush 10 day TAT)

Sample Check-in List

Date/Time Received: 6/30/11 930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: J01148 NA[ ] SAF #: RC-~~181~~ 217 6/30/11 NA [ ]

Job Number: 17547 Chain of Custody # RC-181-017

Shipping Container ID: AFS-06-002 Air Bill # 7949225882 65

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 3.2 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 19
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles
   - (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] Date: 6/30/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 7/1/11

LS-023, Rev. 7, 1/08

From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

J11201104290225

Ship Date: 29JUN11
ActWgt: 66.0 LB
CAD: 8897843/INET3180

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

THU - 30 JUN A1
PRIORITY OVERNIGHT

TRK# 7949 2258 8265
0201

XH WHHA

80002
CO-US
DEN

50FG1/0C80/F5F4

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