SAF-RC-075
100-D/DR Burial Grounds & Remaining Sites – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 2/3/15
INITIAL/DATE

COMMENTS:

SDG JP0897 SAF RC-075

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Waste Site: 100-D-85:2, Verification, Staging Pile Area

Analytical Data Package Prepared For

Washington Closure Hanford

Radiochemical Analysis By

TestAmerica Inc

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

Assigned Laboratory Code: TARL

Data Package Contains 125 *Pages*

Report No.: 64493

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.
JP0897	RC-075	J1V340	J5A220430-1	M512F1AF	9M512F10	5022033
		J1V340	J5A220430-1	M512F1AD	9M512F10	5022034
		J1V340	J5A220430-1	M512F1AE	9M512F10	5022035
		J1V340	J5A220430-1	M512F1AC	9M512F10	5022036
		J1V340	J5A220430-1	M512F1AJ	9M512F10	5022037
		J1V340	J5A220430-1	M512F1AK	9M512F10	5022038
		J1V340	J5A220430-1	M512F1AA	9M512F10	5022041
		J1V341	J5A220430-2	M512Q1AF	9M512Q10	5022033
		J1V341	J5A220430-2	M512Q1AD	9M512Q10	5022034
		J1V341	J5A220430-2	M512Q1AE	9M512Q10	5022035
		J1V341	J5A220430-2	M512Q1AC	9M512Q10	5022036
		J1V341	J5A220430-2	M512Q1AG	9M512Q10	5022037
		J1V341	J5A220430-2	M512Q1AH	9M512Q10	5022038
		J1V341	J5A220430-2	M512Q1AA	9M512Q10	5022041
		J1V342	J5A220430-3	M512R1AF	9M512R10	5022033
		J1V342	J5A220430-3	M512R1AD	9M512R10	5022034
		J1V342	J5A220430-3	M512R1AE	9M512R10	5022035
		J1V342	J5A220430-3	M512R1AC	9M512R10	5022036
		J1V342	J5A220430-3	M512R1AG	9M512R10	5022037
		J1V342	J5A220430-3	M512R1AH	9M512R10	5022038
		J1V342	J5A220430-3	M512R1AA	9M512R10	5022041
		J1V343	J5A220430-4	M512T1AF	9M512T10	5022033
		J1V343	J5A220430-4	M512T1AD	9M512T10	5022034
		J1V343	J5A220430-4	M512T1AE	9M512T10	5022035
		J1V343	J5A220430-4	M512T1AC	9M512T10	5022036
		J1V343	J5A220430-4	M512T1AG	9M512T10	5022037

Report No.: 64493

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SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
JP0897	RC-075	J1V343	J5A220430-4	M512T1AH	9M512T10	5022038
		J1V343	J5A220430-4	M512T1AA	9M512T10	5022041
		J1V344	J5A220430-5	M512V1AF	9M512V10	5022033
		J1V344	J5A220430-5	M512V1AD	9M512V10	5022034
		J1V344	J5A220430-5	M512V1AE	9M512V10	5022035
		J1V344	J5A220430-5	M512V1AC	9M512V10	5022036
		J1V344	J5A220430-5	M512V1AG	9M512V10	5022037
		J1V344	J5A220430-5	M512V1AH	9M512V10	5022038
		J1V344	J5A220430-5	M512V1AA	9M512V10	5022041
		J1V345	J5A220430-6	M512W1AF	9M512W10	5022033
		J1V345	J5A220430-6	M512W1AD	9M512W10	5022034
		J1V345	J5A220430-6	M512W1AE	9M512W10	5022035
		J1V345	J5A220430-6	M512W1AC	9M512W10	5022036
		J1V345	J5A220430-6	M512W1AG	9M512W10	5022037
		J1V345	J5A220430-6	M512W1AH	9M512W10	5022038
		J1V345	J5A220430-6	M512W1AA	9M512W10	5022041
		J1V346	J5A220430-7	M512X1AF	9M512X10	5022033
		J1V346	J5A220430-7	M512X1AD	9M512X10	5022034
		J1V346	J5A220430-7	M512X1AE	9M512X10	5022035
		J1V346	J5A220430-7	M512X1AC	9M512X10	5022036
		J1V346	J5A220430-7	M512X1AG	9M512X10	5022037
		J1V346	J5A220430-7	M512X1AH	9M512X10	5022038
		J1V346	J5A220430-7	M512X1AA	9M512X10	5022041
		J1V347	J5A220430-8	M51201AF	9M512010	5022033
		J1V347	J5A220430-8	M51201AD	9M512010	5022034
		J1V347	J5A220430-8	M51201AE	9M512010	5022035
		J1V347	J5A220430-8	M51201AC	9M512010	5022036
		J1V347	J5A220430-8	M51201AG	9M512010	5022037
		J1V347	J5A220430-8	M51201AH	9M512010	5022038
		J1V347	J5A220430-8	M51201AA	9M512010	5022041
		J1V348	J5A220430-9	M51211AF	9M512110	5022033
		J1V348	J5A220430-9	M51211AD	9M512110	5022034
		J1V348	J5A220430-9	M51211AE	9M512110	5022035
		J1V348	J5A220430-9	M51211AC	9M512110	5022036
		J1V348	J5A220430-9	M51211AG	9M512110	5022037
		J1V348	J5A220430-9	M51211AH	9M512110	5022038
		J1V348	J5A220430-9	M51211AA	9M512110	5022041
		J1V349	J5A220430-10	M51221AF	9M512210	5022033

Report No.: 64493

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.
JP0897		J1V349	J5A220430-10	M51221AD	9M512210	5022034
		J1V349	J5A220430-10	M51221AE	9M512210	5022035
		J1V349	J5A220430-10	M51221AC	9M512210	5022036
		J1V349	J5A220430-10	M51221AA	9M512210	5022041
		J1V349	J5A220430-10	M51223AG	9M512230	5027050
		J1V349	J5A220430-10	M51222AH	9M512220	5027052
	RC-075	J1V350	J5A220430-11	M51231AF	9M512310	5022033
		J1V350	J5A220430-11	M51231AD	9M512310	5022034
		J1V350	J5A220430-11	M51231AE	9M512310	5022035
		J1V350	J5A220430-11	M51231AC	9M512310	5022036
		J1V350	J5A220430-11	M51231AG	9M512310	5022037
		J1V350	J5A220430-11	M51231AH	9M512310	5022038
		J1V350	J5A220430-11	M51231AA	9M512310	5022041
		J1V351	J5A220430-12	M51241AF	9M512410	5022033
		J1V351	J5A220430-12	M51241AD	9M512410	5022034
		J1V351	J5A220430-12	M51241AE	9M512410	5022035
		J1V351	J5A220430-12	M51241AC	9M512410	5022036
		J1V351	J5A220430-12	M51241AG	9M512410	5022037
		J1V351	J5A220430-12	M51241AH	9M512410	5022038
		J1V351	J5A220430-12	M51241AA	9M512410	5022041
		J1V352	J5A220430-13	M51251AF	9M512510	5022033
		J1V352	J5A220430-13	M51251AD	9M512510	5022034
		J1V352	J5A220430-13	M51251AE	9M512510	5022035
		J1V352	J5A220430-13	M51251AC	9M512510	5022036
		J1V352	J5A220430-13	M51251AG	9M512510	5022037
		J1V352	J5A220430-13	M51251AH	9M512510	5022038
		J1V352	J5A220430-13	M51251AA	9M512510	5022041

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

January 29, 2015

Attention: Joan Kessner

SAF Number	:	RC-075
Date SDG Closed	:	January 22, 2015
Number of Samples	:	Thirteen (13)
Sample Type	:	Soil
SDG Number	:	JP0897
Data Deliverable	:	7– Day / Summary

CASE NARRATIVE

I. Introduction

On January 22, 2015, thirteen 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
J1V340	M512F	SOIL	1/22/15
J1V341	M512Q	SOIL	1/22/15
J1V342	M512R	SOIL	1/22/15
J1V343	M512T	SOIL	1/22/15
J1V344	M512V	SOIL	1/22/15
J1V345	M512W	SOIL	1/22/15
J1V346	M512X	SOIL	1/22/15
J1V347	M5120	SOIL	1/22/15
J1V348	M5121	SOIL	1/22/15
J1V349	M5122	SOIL	1/22/15
J1V350	M5123	SOIL	1/22/15
J1V351	M5124	SOIL	1/22/15
J1V352	M5125	SOIL	1/22/15

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:

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-001
Uranium 234, 235 and 238 by method RL-ALP-015
Americium-241 by method RL-ALP-001
Gas Proportional Counting
Strontium-90 by method RL-GPC-010
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001
Liquid Scintillation Counting
Nickel-63 by method RL-LCS-017
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

Alpha Spectroscopy
Plutonium-238, -239/240 by method RL-ALP-001:
Sample J1V349 had no tracer recovery in the original batch; it was reanalyzed in batch 5027050 for an acceptable result. Except as noted; the LCS, batch blank, samples and sample duplicate (J1V340) results are within contractual requirements.

Uranium 234, 235 and 238 by method RL-ALP-015:
The LCS, batch blank, samples and sample duplicate (J1V341) results are within contractual requirements.

Americium 241 by method RL-ALP-001:
Sample J1V349 had no tracer recovery in the original batch; it was reanalyzed in batch 5027052 for an acceptable result. Except as noted; the LCS, batch blank, samples and sample duplicate (J1V340) results are within contractual requirements.

Gas Proportional Counting
Strontium-90 by method RL-GPC-010:
The LCS, batch blank, samples and sample duplicate (J1V344) results are within contractual requirements.

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 (J1V343) results are within contractual requirements.

Liquid Scintillation Counting

Nickel-63 by method RL-LCS-017:

The LCS recovery is below the acceptance criteria; it was recounted and the recovery was confirmed. The batch blank and duplicate agreement is within the acceptance limits and the sample results are less than one tenth the CRDL. There is no indication of low method bias as represented by the successful tracer recoveries. A reanalysis is available upon request. Except as noted; the LCS, batch blank, samples and sample duplicate (J1V342) results are within contractual requirements.

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (J1V340) and sample matrix spike (J1V340) results are within contractual requirements.

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

Reviewed and approved:

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

Date: 29-Jan-15

TestAmerica Inc TARL

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

Report No. : 64493 **SDG No:** JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022037 PUISO_PLATE_AEA									
J1V340									
	M512F1AJ	Pu-238	5.48E-03 +- 3.1E-02	U	pCi/g	100%	9.79E-02	1.00E+00	
		PU239/40	-1.83E-03 +- 3.1E-02	U	pCi/g	100%	6.58E-02	1.00E+00	
J1V340 DUP									
	M512F1AL	Pu-238	2.92E-03 +- 3.0E-02	U	pCi/g	98%	1.00E-01	1.00E+00	60.9
		PU239/40	-1.75E-03 +- 2.9E-02	U	pCi/g	98%	6.32E-02	1.00E+00	-4.1
J1V341									
	M512Q1AG	Pu-238	-8.73E-03 +- 3.0E-02	U	pCi/g	100%	9.19E-02	1.00E+00	
		PU239/40	-1.75E-03 +- 2.9E-02	U	pCi/g	100%	6.29E-02	1.00E+00	
J1V342									
	M512R1AG	Pu-238	-1.01E-02 +- 3.0E-02	U	pCi/g	100%	9.74E-02	1.00E+00	
		PU239/40	-5.95E-04 +- 3.0E-02	U	pCi/g	100%	5.41E-02	1.00E+00	
J1V343									
	M512T1AG	Pu-238	-1.11E-02 +- 3.3E-02	U	pCi/g	92%	1.07E-01	1.00E+00	
		PU239/40	3.27E-02 +- 4.7E-02	U	pCi/g	92%	4.43E-02	1.00E+00	
J1V344									
	M512V1AG	Pu-238	5.25E-03 +- 3.0E-02	U	pCi/g	100%	9.38E-02	1.00E+00	
		PU239/40	1.34E-02 +- 2.9E-02	U	pCi/g	100%	5.87E-02	1.00E+00	
J1V345									
	M512W1AG	Pu-238	2.42E-02 +- 4.1E-02	U	pCi/g	100%	7.70E-02	1.00E+00	
		PU239/40	-1.73E-03 +- 2.9E-02	U	pCi/g	100%	6.23E-02	1.00E+00	
J1V346									
	M512X1AG	Pu-238	-1.22E-02 +- 3.0E-02	U	pCi/g	97%	1.02E-01	1.00E+00	
		PU239/40	-2.92E-03 +- 2.9E-02	U	pCi/g	97%	6.98E-02	1.00E+00	
J1V347									
	M51201AG	Pu-238	6.16E-03 +- 2.8E-02	U	pCi/g	100%	8.66E-02	1.00E+00	
		PU239/40	1.34E-02 +- 2.8E-02	U	pCi/g	100%	5.09E-02	1.00E+00	
J1V348									
	M51211AG	Pu-238	-1.09E-02 +- 3.2E-02	U	pCi/g	86%	1.04E-01	1.00E+00	
		PU239/40	-6.38E-04 +- 3.2E-02	U	pCi/g	86%	5.81E-02	1.00E+00	
J1V350									
	M51231AG	Pu-238	-2.91E-03 +- 2.9E-02	U	pCi/g	99%	6.97E-02	1.00E+00	
		PU239/40	0.00E+00 +- 2.9E-02	U	pCi/g	99%	3.94E-02	1.00E+00	
J1V351									
	M51241AG	Pu-238	2.76E-02 +- 4.1E-02	U	pCi/g	97%	5.78E-02	1.00E+00	
		PU239/40	-2.87E-03 +- 2.9E-02	U	pCi/g	97%	6.88E-02	1.00E+00	
J1V352									
	M51251AG	Pu-238	-4.42E-03 +- 2.8E-02	U	pCi/g	100%	7.38E-02	1.00E+00	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 29-Jan-15

TestAmerica Inc TARL

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

Report No. : 64493 **SDG No:** JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022037 PUISO_PLATE_AEA									
J1V352									
	M51251AG	PU239/40	-1.11E-03 +- 2.8E-02	U	pCi/g	100%	5.57E-02	1.00E+00	
5022038 AMCMISO_EIE_PLT_AEA									
J1V340									
	M512F1AK	AMERICIUM 241	-1.22E-02 +- 3.9E-02	U	pCi/g	80%	1.22E-01	1.00E+00	
J1V340 DUP									
	M512F1AM	AMERICIUM 241	-1.15E-02 +- 2.9E-02	U	pCi/g	107%	9.85E-02	1.00E+00	-5.9
J1V341									
	M512Q1AH	AMERICIUM 241	2.10E-02 +- 4.2E-02	U	pCi/g	115%	9.01E-02	1.00E+00	
J1V342									
	M512R1AH	AMERICIUM 241	-1.19E-02 +- 3.0E-02	U	pCi/g	101%	1.02E-01	1.00E+00	
J1V343									
	M512T1AH	AMERICIUM 241	4.99E-02 +- 6.1E-02	U	pCi/g	100%	9.84E-02	1.00E+00	
J1V344									
	M512V1AH	AMERICIUM 241	-1.17E-02 +- 3.0E-02	U	pCi/g	102%	1.00E-01	1.00E+00	
J1V345									
	M512W1AH	AMERICIUM 241	-6.37E-03 +- 2.9E-02	U	pCi/g	100%	8.38E-02	1.00E+00	
J1V346									
	M512X1AH	AMERICIUM 241	1.81E-02 +- 4.0E-02	U	pCi/g	108%	9.43E-02	1.00E+00	
J1V347									
	M51201AH	AMERICIUM 241	-1.06E-02 +- 2.8E-02	U	pCi/g	104%	9.46E-02	1.00E+00	
J1V348									
	M51211AH	AMERICIUM 241	-1.12E-02 +- 2.8E-02	U	pCi/g	98%	9.57E-02	1.00E+00	
J1V350									
	M51231AH	AMERICIUM 241	-2.88E-03 +- 2.9E-02	U	pCi/g	105%	6.90E-02	1.00E+00	
J1V351									
	M51241AH	AMERICIUM 241	1.41E-02 +- 2.9E-02	U	pCi/g	95%	5.33E-02	1.00E+00	
J1V352									
	M51251AH	AMERICIUM 241	9.40E-03 +- 2.8E-02	U	pCi/g	110%	7.38E-02	1.00E+00	
5027050 PUISO_PLATE_AEA									
J1V349									
	M51223AG	Pu-238	8.18E-03 +- 4.1E-02	U	pCi/g	76%	1.29E-01	1.00E+00	
		PU239/40	-1.64E-03 +- 4.1E-02	U	pCi/g	76%	8.23E-02	1.00E+00	
5027052 AMCMISO_EIE_PLT_AEA									
J1V349									
	M51222AH	AMERICIUM 241	4.12E-03 +- 3.0E-02	U	pCi/g	108%	1.02E-01	1.00E+00	
5022036 UISO_IE_PLATE_AEA									
J1V340									
	M512F1AC	U-234	1.98E-01 +- 1.2E-01		pCi/g	83%	6.17E-02	1.00E+00	

TestAmerica Inc

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Sample Results Summary

TestAmerica Inc TARL

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

Date: 29-Jan-15

Report No. : 64493

SDG No: JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022036 UISO_IE_PLATE_AEA									
J1V340									
	M512F1AC	U-235	-1.23E-03 +- 3.1E-02	U	pCi/g	83%	6.17E-02	1.00E+00	
		U-238	1.37E-01 +- 9.5E-02		pCi/g	83%	6.17E-02	1.00E+00	
J1V341									
	M512Q1AC	U-234	2.30E-01 +- 1.2E-01		pCi/g	90%	6.65E-02	1.00E+00	
		U-235	-5.82E-04 +- 2.9E-02	U	pCi/g	90%	5.29E-02	1.00E+00	
		U-238	2.32E-01 +- 1.2E-01		pCi/g	90%	5.29E-02	1.00E+00	
J1V341 DUP									
	M512Q1AJ	U-234	1.63E-01 +- 1.0E-01		pCi/g	85%	4.01E-02	1.00E+00	34.5
		U-235	0.00E+00 +- 3.0E-02	U	pCi/g	85%	4.01E-02	1.00E+00	-200.0
		U-238	1.18E-01 +- 8.6E-02		pCi/g	85%	4.01E-02	1.00E+00	65.0
J1V342									
	M512R1AC	U-234	2.29E-01 +- 1.2E-01		pCi/g	93%	3.88E-02	1.00E+00	
		U-235	1.43E-02 +- 2.9E-02	U	pCi/g	93%	3.88E-02	1.00E+00	
		U-238	1.57E-01 +- 9.9E-02		pCi/g	93%	3.88E-02	1.00E+00	
J1V343									
	M512T1AC	U-234	1.32E-01 +- 9.2E-02		pCi/g	87%	5.96E-02	1.00E+00	
		U-235	1.42E-02 +- 3.0E-02	U	pCi/g	87%	5.39E-02	1.00E+00	
		U-238	1.92E-01 +- 1.1E-01		pCi/g	87%	5.39E-02	1.00E+00	
J1V344									
	M512V1AC	U-234	1.19E-01 +- 8.7E-02		pCi/g	84%	6.04E-02	1.00E+00	
		U-235	-6.00E-04 +- 3.0E-02	U	pCi/g	84%	5.46E-02	1.00E+00	
		U-238	8.94E-02 +- 7.5E-02		pCi/g	84%	5.46E-02	1.00E+00	
J1V345									
	M512W1AC	U-234	2.35E-01 +- 1.2E-01		pCi/g	93%	5.59E-02	1.00E+00	
		U-235	0.00E+00 +- 2.8E-02	U	pCi/g	93%	3.76E-02	1.00E+00	
		U-238	2.77E-01 +- 1.3E-01		pCi/g	93%	5.06E-02	1.00E+00	
J1V346									
	M512X1AC	U-234	1.61E-01 +- 1.1E-01		pCi/g	81%	4.37E-02	1.00E+00	
		U-235	-6.44E-04 +- 3.2E-02	U	pCi/g	81%	5.86E-02	1.00E+00	
		U-238	1.93E-01 +- 1.2E-01		pCi/g	81%	4.37E-02	1.00E+00	
J1V347									
	M51201AC	U-234	1.22E-01 +- 9.6E-02		pCi/g	71%	7.65E-02	1.00E+00	
		U-235	3.40E-02 +- 5.0E-02	U	pCi/g	71%	7.12E-02	1.00E+00	
		U-238	1.93E-01 +- 1.2E-01		pCi/g	71%	7.12E-02	1.00E+00	
J1V348									
	M51211AC	U-234	1.44E-01 +- 9.2E-02		pCi/g	95%	6.38E-02	1.00E+00	
		U-235	3.94E-02 +- 4.7E-02	U	pCi/g	95%	4.85E-02	1.00E+00	

TestAmerica Inc

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Sample Results Summary

Date: 29-Jan-15

TestAmerica Inc TARL

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

Report No. : 64493 **SDG No:** JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022036 UISO_IE_PLATE_AEA									
J1V348									
	M51211AC	U-238	2.11E-01 +- 1.1E-01		pCi/g	95%	5.75E-02	1.00E+00	
J1V349									
	M51221AC	U-234	1.24E-01 +- 9.7E-02		pCi/g	74%	4.81E-02	1.00E+00	
		U-235	-7.10E-04 +- 3.6E-02	U	pCi/g	74%	6.46E-02	1.00E+00	
		U-238	1.94E-01 +- 1.2E-01		pCi/g	74%	6.46E-02	1.00E+00	
J1V350									
	M51231AC	U-234	2.27E-01 +- 1.2E-01		pCi/g	84%	4.10E-02	1.00E+00	
		U-235	-6.05E-04 +- 3.0E-02	U	pCi/g	84%	5.50E-02	1.00E+00	
		U-238	2.71E-01 +- 1.4E-01		pCi/g	84%	5.50E-02	1.00E+00	
J1V351									
	M51241AC	U-234	1.50E-01 +- 9.5E-02		pCi/g	96%	5.51E-02	1.00E+00	
		U-235	0.00E+00 +- 2.7E-02	U	pCi/g	96%	3.71E-02	1.00E+00	
		U-238	2.33E-01 +- 1.2E-01		pCi/g	96%	3.71E-02	1.00E+00	
J1V352									
	M51251AC	U-234	2.85E-02 +- 4.1E-02	U	pCi/g	88%	5.30E-02	1.00E+00	
		U-235	1.40E-02 +- 2.9E-02	U	pCi/g	88%	5.30E-02	1.00E+00	
		U-238	2.03E-01 +- 1.1E-01		pCi/g	88%	5.30E-02	1.00E+00	
5022033 GAMMA_GS									
J1V340									
	M512F1AF	AMERICIUM 241	-5.21E-03 +- 5.5E-02	U	pCi/g		9.31E-02	1.00E+00	
		CO-60	-1.27E-02 +- 1.7E-02	U	pCi/g		2.87E-02	5.00E-02	
		CS-137	7.27E-03 +- 2.1E-02	U	pCi/g		3.60E-02	1.00E-01	
		EU-152	-3.01E-02 +- 5.3E-02	U	pCi/g		7.54E-02	1.00E-01	
		EU-154	1.27E-02 +- 6.3E-02	U	pCi/g		1.13E-01	1.00E-01	
		EU-155	2.78E-02 +- 4.4E-02	U	pCi/g		7.68E-02	1.00E-01	
		K-40	1.03E+01 +- 1.4E+00		pCi/g		1.42E-01		
J1V341									
	M512Q1AF	AMERICIUM 241	-3.38E-02 +- 7.9E-02	U	pCi/g		1.30E-01	1.00E+00	
		CO-60	-6.34E-03 +- 1.6E-02	U	pCi/g		2.70E-02	5.00E-02	
		CS-137	2.68E-02 +- 1.8E-02	U	pCi/g		3.22E-02	1.00E-01	
		EU-152	1.06E-01 +- 1.0E-01	U	pCi/g		7.62E-02	1.00E-01	
		EU-154	-4.35E-03 +- 5.1E-02	U	pCi/g		8.81E-02	1.00E-01	
		EU-155	-6.69E-05 +- 5.7E-02	U	pCi/g		9.45E-02	1.00E-01	
		K-40	1.09E+01 +- 1.4E+00		pCi/g		2.04E-01		
J1V342									
	M512R1AF	AMERICIUM 241	-6.80E-03 +- 2.2E-02	U	pCi/g		3.69E-02	1.00E+00	
		CO-60	4.27E-03 +- 1.4E-02	U	pCi/g		2.49E-02	5.00E-02	

TestAmerica Inc

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Sample Results Summary

Date: 29-Jan-15

TestAmerica Inc TARL

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

Report No. : 64493 **SDG No:** JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022033 GAMMA_GS									
J1V342									
	M512R1AF	CS-137	2.41E-03 +- 1.5E-02	U	pCi/g		2.54E-02	1.00E-01	
		EU-152	-8.58E-03 +- 3.3E-02	U	pCi/g		5.73E-02	1.00E-01	
		EU-154	8.76E-03 +- 4.3E-02	U	pCi/g		7.75E-02	1.00E-01	
		EU-155	2.75E-02 +- 3.3E-02	U	pCi/g		5.74E-02	1.00E-01	
		K-40	1.02E+01 +- 1.3E+00		pCi/g		1.80E-01		
J1V343									
	M512T1AF	AMERICIUM 241	5.53E-03 +- 1.6E-02	U	pCi/g		2.61E-02	1.00E+00	
		CO-60	1.03E-04 +- 1.3E-02	U	pCi/g		2.33E-02	5.00E-02	
		CS-137	4.36E-01 +- 6.1E-02		pCi/g		2.08E-02	1.00E-01	
		EU-152	2.60E-02 +- 2.8E-02	U	pCi/g		5.00E-02	1.00E-01	
		EU-154	-6.04E-02 +- 4.5E-02	U	pCi/g		6.86E-02	1.00E-01	
		EU-155	4.13E-02 +- 2.3E-02	U	pCi/g		4.06E-02	1.00E-01	
		K-40	9.97E+00 +- 1.2E+00		pCi/g		2.25E-01		
J1V343 DUP									
	M512T1AJ	AMERICIUM 241	5.61E-03 +- 1.4E-02	U	pCi/g		2.43E-02	1.00E+00	1.5
		CO-60	7.61E-03 +- 1.2E-02	U	pCi/g		2.29E-02	5.00E-02	194.7
		CS-137	3.45E-01 +- 4.9E-02		pCi/g		2.03E-02	1.00E-01	23.3
		EU-152	6.35E-02 +- 5.1E-02	U	pCi/g		4.87E-02	1.00E-01	83.6
		EU-154	2.24E-02 +- 3.8E-02	U	pCi/g		7.02E-02	1.00E-01	-435.7
		EU-155	1.62E-02 +- 2.1E-02	U	pCi/g		3.72E-02	1.00E-01	87.4
		K-40	1.05E+01 +- 1.3E+00		pCi/g		1.64E-01		5.5
J1V344									
	M512V1AF	AMERICIUM 241	-9.25E-03 +- 1.5E-02	U	pCi/g		2.49E-02	1.00E+00	
		CO-60	9.53E-03 +- 1.1E-02	U	pCi/g		2.12E-02	5.00E-02	
		CS-137	6.83E-03 +- 1.1E-02	U	pCi/g		1.99E-02	1.00E-01	
		EU-152	1.80E-02 +- 2.5E-02	U	pCi/g		4.39E-02	1.00E-01	
		EU-154	7.58E-03 +- 4.1E-02	U	pCi/g		7.32E-02	1.00E-01	
		EU-155	2.32E-02 +- 2.4E-02	U	pCi/g		4.06E-02	1.00E-01	
		K-40	9.73E+00 +- 1.2E+00		pCi/g		1.55E-01		
J1V345									
	M512W1AF	AMERICIUM 241	3.71E-02 +- 5.6E-02	U	pCi/g		9.63E-02	1.00E+00	
		CO-60	1.48E-02 +- 1.6E-02	U	pCi/g		3.24E-02	5.00E-02	
		CS-137	-1.09E-02 +- 1.9E-02	U	pCi/g		3.06E-02	1.00E-01	
		EU-152	-7.23E-02 +- 5.3E-02	U	pCi/g		7.06E-02	1.00E-01	
		EU-154	1.83E-02 +- 5.9E-02	U	pCi/g		1.08E-01	1.00E-01	
		EU-155	-1.16E-02 +- 4.3E-02	U	pCi/g		7.35E-02	1.00E-01	
		K-40	9.98E+00 +- 1.4E+00		pCi/g		2.31E-01		

TestAmerica Inc

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Sample Results Summary

Date: 29-Jan-15

TestAmerica Inc TARL

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

Report No. : 64493 **SDG No:** JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022033 GAMMA_GS									
J1V346									
	M512X1AF	AMERICIUM 241	-5.28E-02 +- 8.0E-02	U	pCi/g		1.31E-01	1.00E+00	
		CO-60	1.73E-02 +- 1.6E-02	U	pCi/g		3.04E-02	5.00E-02	
		CS-137	3.83E-02 +- 1.9E-02	U	pCi/g		3.42E-02	1.00E-01	
		EU-152	-3.31E-02 +- 1.3E-01	U	pCi/g		7.80E-02	1.00E-01	
		EU-154	-1.41E-02 +- 4.9E-02	U	pCi/g		8.38E-02	1.00E-01	
		EU-155	6.16E-02 +- 5.7E-02	U	pCi/g		9.63E-02	1.00E-01	
		K-40	1.17E+01 +- 1.5E+00		pCi/g		2.05E-01		
J1V347									
	M51201AF	AMERICIUM 241	-3.42E-03 +- 2.1E-02	U	pCi/g		3.59E-02	1.00E+00	
		CO-60	2.70E-03 +- 1.3E-02	U	pCi/g		2.32E-02	5.00E-02	
		CS-137	3.63E-03 +- 1.4E-02	U	pCi/g		2.45E-02	1.00E-01	
		EU-152	-2.70E-03 +- 3.4E-02	U	pCi/g		5.82E-02	1.00E-01	
		EU-154	8.11E-03 +- 4.1E-02	U	pCi/g		7.48E-02	1.00E-01	
		EU-155	2.66E-02 +- 3.3E-02	U	pCi/g		5.75E-02	1.00E-01	
		K-40	1.01E+01 +- 1.3E+00		pCi/g		2.03E-01		
J1V348									
	M51211AF	AMERICIUM 241	6.03E-03 +- 6.1E-02	U	pCi/g		1.04E-01	1.00E+00	
		CO-60	-7.83E-03 +- 1.8E-02	U	pCi/g		3.10E-02	5.00E-02	
		CS-137	5.79E-02 +- 2.7E-02		pCi/g		3.38E-02	1.00E-01	
		EU-152	-3.99E-02 +- 5.3E-02	U	pCi/g		7.66E-02	1.00E-01	
		EU-154	3.42E-02 +- 6.0E-02	U	pCi/g		1.11E-01	1.00E-01	
		EU-155	-1.61E-02 +- 4.5E-02	U	pCi/g		7.66E-02	1.00E-01	
		K-40	1.20E+01 +- 1.6E+00		pCi/g		3.11E-01		
J1V349									
	M51221AF	AMERICIUM 241	-4.46E-02 +- 9.1E-02	U	pCi/g		1.50E-01	1.00E+00	
		CO-60	2.19E-02 +- 1.8E-02	U	pCi/g		3.36E-02	5.00E-02	
		CS-137	5.13E-04 +- 1.9E-02	U	pCi/g		3.21E-02	1.00E-01	
		EU-152	5.16E-02 +- 1.3E-01	U	pCi/g		8.33E-02	1.00E-01	
		EU-154	-3.29E-02 +- 5.4E-02	U	pCi/g		9.02E-02	1.00E-01	
		EU-155	-5.95E-03 +- 6.4E-02	U	pCi/g		1.06E-01	1.00E-01	
		K-40	1.40E+01 +- 1.7E+00		pCi/g		2.30E-01		
J1V350									
	M51231AF	AMERICIUM 241	8.15E-03 +- 2.3E-02	U	pCi/g		4.03E-02	1.00E+00	
		CO-60	-6.24E-03 +- 1.3E-02	U	pCi/g		2.26E-02	5.00E-02	
		CS-137	-1.18E-02 +- 1.4E-02	U	pCi/g		2.31E-02	1.00E-01	
		EU-152	-6.51E-03 +- 3.6E-02	U	pCi/g		6.13E-02	1.00E-01	
		EU-154	-6.08E-03 +- 4.2E-02	U	pCi/g		7.35E-02	1.00E-01	

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Date: 29-Jan-15

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SDG No: JP0897

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5022033 GAMMA_GS									
J1V350									
	M51231AF	EU-155	3.55E-02 +- 3.6E-02	U	pCi/g		6.13E-02	1.00E-01	
		K-40	1.09E+01 +- 1.4E+00		pCi/g		2.09E-01		
J1V351									
	M51241AF	AMERICIUM 241	2.35E-02 +- 6.9E-02	U	pCi/g		1.18E-01	1.00E+00	
		CO-60	-3.29E-03 +- 2.1E-02	U	pCi/g		3.67E-02	5.00E-02	
		CS-137	2.95E-03 +- 2.3E-02	U	pCi/g		3.93E-02	1.00E-01	
		EU-152	-6.80E-02 +- 6.0E-02	U	pCi/g		8.45E-02	1.00E-01	
		EU-154	-1.20E-01 +- 6.9E-02	U	pCi/g		1.01E-01	1.00E-01	
		EU-155	4.44E-02 +- 5.2E-02	U	pCi/g		9.15E-02	1.00E-01	
		K-40	1.30E+01 +- 1.8E+00		pCi/g		3.40E-01		
J1V352									
	M51251AF	AMERICIUM 241	-6.79E-02 +- 8.7E-02	U	pCi/g		1.41E-01	1.00E+00	
		CO-60	-5.30E-03 +- 1.6E-02	U	pCi/g		2.77E-02	5.00E-02	
		CS-137	8.85E-03 +- 1.8E-02	U	pCi/g		3.06E-02	1.00E-01	
		EU-152	-3.02E-02 +- 1.5E-01	U	pCi/g		8.59E-02	1.00E-01	
		EU-154	-1.59E-02 +- 5.2E-02	U	pCi/g		8.85E-02	1.00E-01	
		EU-155	2.79E-02 +- 6.3E-02	U	pCi/g		1.05E-01	1.00E-01	
		K-40	1.37E+01 +- 1.7E+00		pCi/g		2.19E-01		
5022034 SRTOT_SEP_PRECIP_GPC									
J1V340									
	M512F1AD	STRONTIUM	1.79E-01 +- 2.0E-01	U	pCi/g	88%	4.05E-01	1.00E+00	
J1V341									
	M512Q1AD	STRONTIUM	-1.46E-01 +- 1.6E-01	U	pCi/g	88%	4.18E-01	1.00E+00	
J1V342									
	M512R1AD	STRONTIUM	-6.31E-02 +- 1.5E-01	U	pCi/g	93%	3.75E-01	1.00E+00	
J1V343									
	M512T1AD	STRONTIUM	3.50E-01 +- 2.2E-01	U	pCi/g	88%	3.96E-01	1.00E+00	
J1V344									
	M512V1AD	STRONTIUM	7.78E-02 +- 1.9E-01	U	pCi/g	88%	4.13E-01	1.00E+00	
J1V344 DUP									
	M512V1AJ	STRONTIUM	3.80E-02 +- 1.6E-01	U	pCi/g	97%	3.62E-01	1.00E+00	68.7
J1V345									
	M512W1AD	STRONTIUM	7.79E-02 +- 1.9E-01	U	pCi/g	92%	4.20E-01	1.00E+00	
J1V346									
	M512X1AD	STRONTIUM	3.96E-02 +- 1.8E-01	U	pCi/g	88%	4.15E-01	1.00E+00	
J1V347									
	M51201AD	STRONTIUM	-8.32E-02 +- 1.7E-01	U	pCi/g	88%	4.31E-01	1.00E+00	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica Inc TARL

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

Date: 29-Jan-15

Report No. : 64493

SDG No: JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022034 SRTOT_SEP_PRECIP_GPC									
J1V348									
	M51211AD	STRONTIUM	1.56E-01 +- 1.9E-01	U	pCi/g	98%	4.04E-01	1.00E+00	
J1V349									
	M51221AD	STRONTIUM	-1.26E-01 +- 1.5E-01	U	pCi/g	88%	4.01E-01	1.00E+00	
J1V350									
	M51231AD	STRONTIUM	7.84E-02 +- 2.2E-01	U	pCi/g	74%	4.86E-01	1.00E+00	
J1V351									
	M51241AD	STRONTIUM	1.22E-01 +- 1.9E-01	U	pCi/g	84%	4.07E-01	1.00E+00	
J1V352									
	M51251AD	STRONTIUM	9.49E-02 +- 1.8E-01	U	pCi/g	88%	3.87E-01	1.00E+00	
5022035 NI63_LSC									
J1V340									
	M512F1AE	Ni-63	-8.94E-01 +- 1.6E+00	U	pCi/g	85%	3.83E+00	3.00E+01	
J1V341									
	M512Q1AE	Ni-63	-2.81E-01 +- 1.7E+00	U	pCi/g	81%	4.00E+00	3.00E+01	
J1V342									
	M512R1AE	Ni-63	-3.44E-01 +- 1.6E+00	U	pCi/g	86%	3.77E+00	3.00E+01	
J1V342 DUP									
	M512R1AJ	Ni-63	7.74E-01 +- 1.8E+00	U	pCi/g	81%	4.07E+00	3.00E+01	520.4
J1V343									
	M512T1AE	NI-63	2.00E+00 +- 1.8E+00	U	pCi/g	85%	3.92E+00	3.00E+01	
J1V344									
	M512V1AE	Ni-63	1.00E+00 +- 1.7E+00	U	pCi/g	84%	3.78E+00	3.00E+01	
J1V345									
	M512W1AE	Ni-63	-1.21E-01 +- 1.6E+00	U	pCi/g	84%	3.87E+00	3.00E+01	
J1V346									
	M512X1AE	Ni-63	3.46E-02 +- 1.6E+00	U	pCi/g	87%	3.80E+00	3.00E+01	
J1V347									
	M51201AE	Ni-63	-1.04E-01 +- 1.8E+00	U	pCi/g	78%	4.17E+00	3.00E+01	
J1V348									
	M51211AE	Ni-63	2.91E-01 +- 1.6E+00	U	pCi/g	90%	3.57E+00	3.00E+01	
J1V349									
	M51221AE	Ni-63	-6.01E-02 +- 1.7E+00	U	pCi/g	85%	3.91E+00	3.00E+01	
J1V350									
	M51231AE	Ni-63	-4.67E-01 +- 1.6E+00	U	pCi/g	88%	3.76E+00	3.00E+01	
J1V351									
	M51241AE	Ni-63	-2.24E-01 +- 1.5E+00	U	pCi/g	90%	3.58E+00	3.00E+01	
J1V352									
	M51251AE	Ni-63	7.64E-01 +- 1.5E+00	U	pCi/g	95%	3.47E+00	3.00E+01	

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica Inc TARL

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

Date: 29-Jan-15

Report No. : 64493

SDG No: JP0897

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
5022035	NI63_LSC								
5022041	7196_CR6								
J1V340									
	M512F1AA	HEXCHROME	2.82E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	M512F1AP	HEXCHROME	2.17E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	26.1
J1V341									
	M512Q1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V342									
	M512R1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V343									
	M512T1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V344									
	M512V1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V345									
	M512W1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V346									
	M512X1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V347									
	M51201AA	HEXCHROME	1.75E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1V348									
	M51211AA	HEXCHROME	1.79E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1V349									
	M51221AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V350									
	M51231AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
J1V351									
	M51241AA	HEXCHROME	1.73E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1V352									
	M51251AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	

No. of Results: 224

TestAmerica Inc

rptTALRchSaSummary2 V5.3.6.5 A2002

RPD - Relative Percent Difference.

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

QC Results Summary

Date: 29-Jan-15

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 64493 **SDG No.:** JP0897

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
PUISO_PLATE_AEA								
5022037 BLANK QC,								
M514T1AA	Pu-238	-1.75E-03 +- 2.9E-02	U	pCi/g	97%			6.29E-02
	PU239/40	-1.16E-03 +- 2.9E-02	U	pCi/g	97%			5.86E-02
5022037 LCS,								
M514T1AC	PU239/40	5.72E+00 +- 1.2E+00		pCi/g	83%	115%	0.1	7.00E-02
AMCMISO_EIE_PLT_AEA								
5022038 BLANK QC,								
M51431AA	AMERICIUM 241	-1.83E-03 +- 3.1E-02	U	pCi/g	93%			6.58E-02
5022038 LCS,								
M51431AC	AMERICIUM 241	4.17E+00 +- 9.1E-01		pCi/g	95%	90%	-0.1	6.55E-02
PUISO_PLATE_AEA								
5027050 BLANK QC,								
M52401AA	Pu-238	6.52E-03 +- 3.0E-02	U	pCi/g	95%			9.17E-02
	PU239/40	-1.18E-03 +- 3.0E-02	U	pCi/g	95%			5.96E-02
5027050 LCS,								
M52401AC	PU239/40	5.42E+00 +- 1.1E+00		pCi/g	96%	118%	0.2	6.47E-02
AMCMISO_EIE_PLT_AEA								
5027052 BLANK QC,								
M526W1AA	AMERICIUM 241	4.20E-03 +- 2.7E-02	U	pCi/g	97%			8.96E-02
5027052 LCS,								
M526W1AC	AMERICIUM 241	4.57E+00 +- 9.4E-01		pCi/g	106%	109%	0.1	9.07E-02
UISO_IE_PLATE_AEA								
5022036 BLANK QC,								
M514R1AA	U-234	1.32E-02 +- 2.8E-02	U	pCi/g	91%			5.02E-02
	U-235	1.32E-02 +- 2.8E-02	U	pCi/g	91%			5.02E-02
	U-238	0.00E+00 +- 2.8E-02	U	pCi/g	91%			3.74E-02
5022036 LCS,								
M514R1AC	U-234	3.40E+00 +- 7.9E-01		pCi/g	75%	109%	0.1	7.24E-02
	U-238	3.45E+00 +- 8.0E-01		pCi/g	75%	105%	0.1	6.75E-02
GAMMA_GS								
5022033 BLANK QC,								
M514H1AA	AMERICIUM 241	1.40E-02 +- 1.4E-02	U	pCi/g				2.58E-02
	CO-60	5.01E-03 +- 1.1E-02	U	pCi/g				2.07E-02
	CS-137	-9.37E-03 +- 1.1E-02	U	pCi/g				1.74E-02
	EU-152	2.76E-02 +- 2.9E-02	U	pCi/g				5.34E-02
	EU-154	-7.09E-03 +- 3.3E-02	U	pCi/g				5.88E-02
	EU-155	8.30E-03 +- 2.3E-02	U	pCi/g				4.06E-02
	K-40	-3.97E-01 +- 2.9E-01	U	pCi/g				6.03E-01
5022033 LCS,								
M514H1AC	CS-137	1.05E+00 +- 1.4E-01		pCi/g		105%	0.1	3.84E-02
	RA-226	9.76E-01 +- 1.6E-01		pCi/g		86%	-0.1	6.70E-02

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

rptSTLRchQcSummary V5.3.6.5 A2002 **U Qual** - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

QC Results Summary

Date: 29-Jan-15

TestAmerica Inc TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 64493 **SDG No.:** JP0897

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
M514H1AC	RA-228	6.57E-01 +- 1.8E-01		pCi/g		111%	0.1	1.08E-01
	U-238	1.04E+00 +- 1.7E-01		pCi/g		87%	-0.1	7.76E-02
SRTOT_SEP_PRECIP_GPC								
5022034 BLANK QC,								
M514K1AA	STRONTIUM	9.52E-02 +- 1.8E-01	U	pCi/g	90%			3.93E-01
5022034 LCS,								
M514K1AC	STRONTIUM	4.27E+00 +- 1.1E+00		pCi/g	89%	123%	0.2	3.76E-01
NI63_LSC								
5022035 BLANK QC,								
M514P1AA	Ni-63	7.22E-01 +- 8.6E-01	U	pCi/g	86%			1.89E+00
5022035 LCS,								
M514P1AC	Ni-63	6.96E+01 +- 3.9E+00		pCi/g	89%	61%	-0.4	1.84E+00
7196_CR6								
5022041 MATRIX SPIKE, J1V340								
M512F1AN	HEXCHROME	2.80E+01 +- 0.0E+00		mg/kg	N/A	88%	-0.1	1.55E-01
5022041 LCS,								
M516P1AC	HEXCHROME	1.87E+01 +- 0.0E+00		mg/kg	N/A	94%	-0.1	1.55E-01
5022041 BLANK QC,								
M516P1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01

No. of Results: 33

TestAmerica Inc
rptSTLRchQcSummary V5.3.6.5
A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-1
Client Sample ID: J1V340

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 10:10:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:** M512F1AF			**Report DB ID:** 9M512F10					
AMERICIUM 241	-5.21E-03	U	5.5E-02	5.5E-02	9.31E-02	pCi/g		-0.06	1/27/15 06:48 a		391.3	GER7$1
							1.00E+00	-0.19			g	
CO-60	-1.27E-02	U	1.7E-02	1.7E-02	2.87E-02	pCi/g		-0.44	1/27/15 06:48 a		391.3	GER7$1
							5.00E-02	-(1.5)			g	
CS-137	7.27E-03	U	2.1E-02	2.1E-02	3.60E-02	pCi/g		0.2	1/27/15 06:48 a		391.3	GER7$1
							1.00E-01	0.71			g	
EU-152	-3.01E-02	U	5.3E-02	5.3E-02	7.54E-02	pCi/g		-0.4	1/27/15 06:48 a		391.3	GER7$1
							1.00E-01	-(1.1)			g	
EU-154	1.27E-02	U	6.3E-02	6.3E-02	1.13E-01	pCi/g		0.11	1/27/15 06:48 a		391.3	GER7$1
							1.00E-01	0.4			g	
EU-155	2.78E-02	U	4.4E-02	4.4E-02	7.68E-02	pCi/g		0.36	1/27/15 06:48 a		391.3	GER7$1
							1.00E-01	(1.3)			g	
K-40	1.03E+01		1.4E+00	1.4E+00	1.42E-01	pCi/g		(72.3)	1/27/15 06:48 a		391.3	GER7$1
								(14.4)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:** M512F1AD			**Report DB ID:** 9M512F10					
STRONTIUM	1.79E-01	U	1.9E-01	2.0E-01	4.05E-01	pCi/g	88%	0.44	1/27/15 07:03 p		2.03	GPC31B
						1.87E-01	1.00E+00	(1.8)			g	
Batch: 5022035	NI63_LSC			**Work Order:** M512F1AE			**Report DB ID:** 9M512F10					
Ni-63	-8.94E-01	U	1.5E+00	1.6E+00	3.83E+00	pCi/g	85%	-0.23	1/28/15 05:46 p		1.01	LSC4
						1.79E+00	3.00E+01	-(1.1)			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:** M512F1AC			**Report DB ID:** 9M512F10					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-1
Client Sample ID: J1V340

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 10:10:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.98E-01		1.1E-01	1.2E-01	6.17E-02	pCi/g	83%	*(3.2)*	1/28/15 09:35 p		1.02	ALP427
						1.29E-02	1.00E+00	*(3.4)*			g	
U-235	-1.23E-03	U	3.1E-02	3.1E-02	6.17E-02	pCi/g	83%	*-0.02*	1/28/15 09:35 p		1.02	ALP427
						1.29E-02	1.00E+00	*-0.08*			g	
U-238	1.37E-01		9.2E-02	9.5E-02	6.17E-02	pCi/g	83%	*(2.2)*	1/28/15 09:35 p		1.02	ALP427
						1.29E-02	1.00E+00	*(2.9)*			g	
							Ratio U-234/238 = 1.4					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M512F1AJ		**Report DB ID:**	9M512F10				
Pu-238	5.48E-03	U	3.1E-02	3.1E-02	9.79E-02	pCi/g	100%	*0.06*	1/27/15 12:46 p		1.02	ALP401
						2.56E-02	1.00E+00	*0.36*			g	
PU239/40	-1.83E-03	U	3.1E-02	3.1E-02	6.58E-02	pCi/g	100%	*-0.03*	1/27/15 12:46 p		1.02	ALP401
						1.43E-02	1.00E+00	*-0.12*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M512F1AK		**Report DB ID:**	9M512F10				
AMERICIUM 241	-1.22E-02	U	3.9E-02	3.9E-02	1.22E-01	pCi/g	80%	*-0.1*	1/28/15 10:48 a		1.02	ALP401
						3.19E-02	1.00E+00	*-0.63*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M512F1AA		**Report DB ID:**	9M512F10				
HEXCHROME	2.82E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.8)*	1/26/15 02:47 p		2.5062	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:16:00 AM
Lot-Sample No.:	J5A220430-2	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V341	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M512Q1AF		**Report DB ID:**	9M512Q10				
AMERICIUM 241	**-3.38E-02**	U	7.9E-02	7.9E-02	1.30E-01	pCi/g		*-0.26*	1/27/15 06:49 a		374.4	GER10$1
							1.00E+00	*-0.86*			g	
CO-60	**-6.34E-03**	U	1.6E-02	1.6E-02	2.70E-02	pCi/g		*-0.23*	1/27/15 06:49 a		374.4	GER10$1
							5.00E-02	*-0.8*			g	
CS-137	**2.68E-02**	U	1.8E-02	1.8E-02	3.22E-02	pCi/g		*0.83*	1/27/15 06:49 a		374.4	GER10$1
							1.00E-01	*(3.)*			g	
EU-152	**1.06E-01**	U	1.0E-01	1.0E-01	7.62E-02	pCi/g		*(1.4)*	1/27/15 06:49 a		374.4	GER10$1
							1.00E-01	*(2.1)*			g	
EU-154	**-4.35E-03**	U	5.1E-02	5.1E-02	8.81E-02	pCi/g		*-0.05*	1/27/15 06:49 a		374.4	GER10$1
							1.00E-01	*-0.17*			g	
EU-155	**-6.69E-05**	U	5.7E-02	5.7E-02	9.45E-02	pCi/g		*0.*	1/27/15 06:49 a		374.4	GER10$1
							1.00E-01	*0.*			g	
K-40	**1.09E+01**		1.4E+00	1.4E+00	2.04E-01	pCi/g		*(53.6)*	1/27/15 06:49 a		374.4	GER10$1
								(15.7)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M512Q1AD		**Report DB ID:**	9M512Q10				
STRONTIUM	**-1.46E-01**	U	1.6E-01	1.6E-01	4.18E-01	pCi/g	88%	*-0.35*	1/27/15 07:03 p		2.01	GPC31C
						1.94E-01	1.00E+00	*-(1.8)*			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M512Q1AE		**Report DB ID:**	9M512Q10				
Ni-63	**-2.81E-01**	U	1.6E+00	1.7E+00	4.00E+00	pCi/g	81%	*-0.07*	1/28/15 06:09 p		1.02	LSC4
						1.87E+00	3.00E+01	*-0.33*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M512Q1AC		**Report DB ID:**	9M512Q10				

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V5.3.6.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-2
Client Sample ID: J1V341

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 10:16:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	2.30E-01		1.2E-01	1.2E-01	6.65E-02	pCi/g	90%	*(3.5)*	1/28/15 07:36 p		1.0	ALP420
						1.49E-02	1.00E+00	*(3.7)*			g	
U-235	-5.82E-04	U	2.9E-02	2.9E-02	5.29E-02	pCi/g	90%	*-0.01*	1/28/15 07:36 p		1.0	ALP420
						1.04E-02	1.00E+00	*-0.04*			g	
U-238	2.32E-01		1.2E-01	1.2E-01	5.29E-02	pCi/g	90%	*(4.4)*	1/28/15 07:36 p		1.0	ALP420
						1.04E-02	1.00E+00	*(3.8)*			g	
							Ratio U-234/238 = 1.0					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:** M512Q1AG			**Report DB ID:** 9M512Q10					
Pu-238	-8.73E-03	U	2.9E-02	3.0E-02	9.19E-02	pCi/g	100%	*-0.1*	1/27/15 12:46 p		1.03	ALP404
						2.38E-02	1.00E+00	*-0.59*			g	
PU239/40	-1.75E-03	U	2.9E-02	2.9E-02	6.29E-02	pCi/g	100%	*-0.03*	1/27/15 12:46 p		1.03	ALP404
						1.37E-02	1.00E+00	*-0.12*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:** M512Q1AH			**Report DB ID:** 9M512Q10					
AMERICIUM 241	2.10E-02	U	4.1E-02	4.2E-02	9.01E-02	pCi/g	115%	*0.23*	1/28/15 10:48 a		1.03	ALP404
						2.32E-02	1.00E+00	*(1.)*			g	
Batch: 5022041	7196_CR6			**Work Order:** M512Q1AA			**Report DB ID:** 9M512Q10					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5064	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
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V5.3.6.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:23:00 AM
Lot-Sample No.:	J5A220430-3	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V342	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M512R1AF		**Report DB ID:**	9M512R10				
AMERICIUM 241	**-6.80E-03**	U	2.2E-02	2.2E-02	3.69E-02	pCi/g		*-0.18*	1/27/15 06:49 a		389.6	GER15$1
							1.00E+00	*-0.63*			g	
CO-60	**4.27E-03**	U	1.4E-02	1.4E-02	2.49E-02	pCi/g		*0.17*	1/27/15 06:49 a		389.6	GER15$1
							5.00E-02	*0.63*			g	
CS-137	**2.41E-03**	U	1.5E-02	1.5E-02	2.54E-02	pCi/g		*0.09*	1/27/15 06:49 a		389.6	GER15$1
							1.00E-01	*0.33*			g	
EU-152	**-8.58E-03**	U	3.3E-02	3.3E-02	5.73E-02	pCi/g		*-0.15*	1/27/15 06:49 a		389.6	GER15$1
							1.00E-01	*-0.51*			g	
EU-154	**8.76E-03**	U	4.3E-02	4.3E-02	7.75E-02	pCi/g		*0.11*	1/27/15 06:49 a		389.6	GER15$1
							1.00E-01	*0.41*			g	
EU-155	**2.75E-02**	U	3.3E-02	3.3E-02	5.74E-02	pCi/g		*0.48*	1/27/15 06:49 a		389.6	GER15$1
							1.00E-01	*(1.7)*			g	
K-40	**1.02E+01**		1.3E+00	1.3E+00	1.80E-01	pCi/g		*(56.5)*	1/27/15 06:49 a		389.6	GER15$1
								(16.)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M512R1AD		**Report DB ID:**	9M512R10				
STRONTIUM	**-6.31E-02**	U	1.5E-01	1.5E-01	3.75E-01	pCi/g	93%	*-0.17*	1/27/15 07:03 p		2.02	GPC31D
						1.73E-01	1.00E+00	*-0.85*			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M512R1AE		**Report DB ID:**	9M512R10				
Ni-63	**-3.44E-01**	U	1.5E+00	1.6E+00	3.77E+00	pCi/g	86%	*-0.09*	1/28/15 06:32 p		1.01	LSC4
						1.76E+00	3.00E+01	*-0.43*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M512R1AC		**Report DB ID:**	9M512R10				

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-3
Client Sample ID: J1V342

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 10:23:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	2.29E-01		1.1E-01	1.2E-01	3.88E-02	pCi/g	93%	*(5.9)*	1/28/15 07:37 p		1.0	ALP422
						7.60E-03	1.00E+00	*(3.8)*			g	
U-235	1.43E-02	U	2.9E-02	2.9E-02	3.88E-02	pCi/g	93%	*0.37*	1/28/15 07:37 p		1.0	ALP422
						7.60E-03	1.00E+00	*1.*			g	
U-238	1.57E-01		9.5E-02	9.9E-02	3.88E-02	pCi/g	93%	*(4.1)*	1/28/15 07:37 p		1.0	ALP422
						7.60E-03	1.00E+00	*(3.2)*			g	
							Ratio U-234/238 = 1.5					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M512R1AG		**Report DB ID:**	9M512R10				
Pu-238	-1.01E-02	U	3.0E-02	3.0E-02	9.74E-02	pCi/g	100%	*-0.1*	1/27/15 12:47 p		0.99	ALP405
						2.56E-02	1.00E+00	*-0.67*			g	
PU239/40	-5.95E-04	U	3.0E-02	3.0E-02	5.41E-02	pCi/g	100%	*-0.01*	1/27/15 12:47 p		0.99	ALP405
						1.07E-02	1.00E+00	*-0.04*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M512R1AH		**Report DB ID:**	9M512R10				
AMERICIUM 241	-1.19E-02	U	3.0E-02	3.0E-02	1.02E-01	pCi/g	101%	*-0.12*	1/28/15 10:48 a		0.99	ALP405
						2.73E-02	1.00E+00	*-0.79*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M512R1AA		**Report DB ID:**	9M512R10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5109	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
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V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:04:00 AM
Lot-Sample No.:	J5A220430-4	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V343	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M512T1AF		**Report DB ID:**	9M512T10				
AMERICIUM 241	5.53E-03	U	1.6E-02	1.6E-02	2.61E-02	pCi/g	1.00E+00	0.21 0.71	1/27/15 06:49 a		389.3 g	GER16$1
CO-60	1.03E-04	U	1.3E-02	1.3E-02	2.33E-02	pCi/g	5.00E-02	0. 0.02	1/27/15 06:49 a		389.3 g	GER16$1
CS-137	4.36E-01		6.1E-02	6.1E-02	2.08E-02	pCi/g	1.00E-01	(20.9) (14.2)	1/27/15 06:49 a		389.3 g	GER16$1
EU-152	2.60E-02	U	2.8E-02	2.8E-02	5.00E-02	pCi/g	1.00E-01	0.52 (1.8)	1/27/15 06:49 a		389.3 g	GER16$1
EU-154	-6.04E-02	U	4.5E-02	4.5E-02	6.86E-02	pCi/g	1.00E-01	-0.88 -(2.7)	1/27/15 06:49 a		389.3 g	GER16$1
EU-155	4.13E-02	U	2.3E-02	2.3E-02	4.06E-02	pCi/g	1.00E-01	(1.) (3.6)	1/27/15 06:49 a		389.3 g	GER16$1
K-40	9.97E+00		1.2E+00	1.2E+00	2.25E-01	pCi/g		(44.3) (16.1)	1/27/15 06:49 a		389.3 g	GER16$1
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M512T1AD		**Report DB ID:**	9M512T10				
STRONTIUM	3.50E-01	U	2.1E-01	2.2E-01	3.96E-01	pCi/g 1.82E-01	88% 1.00E+00	0.89 (3.1)	1/27/15 07:57 p		2.0 g	GPC31D
Batch: 5022035	NI63_LSC			**Work Order:**	M512T1AE		**Report DB ID:**	9M512T10				
Ni-63	2.00E+00	U	1.7E+00	1.8E+00	3.92E+00	pCi/g 1.84E+00	85% 3.00E+01	0.51 (2.2)	1/28/15 07:18 p		0.99 g	LSC4
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M512T1AC		**Report DB ID:**	9M512T10				

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V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:04:00 AM
Lot-Sample No.:	**J5A220430-4**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V343**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	**1.32E-01**		8.9E-02	9.2E-02	5.96E-02	pCi/g	87%	*(2.2)*	1/28/15 07:37 p		1.04	ALP423
						1.24E-02	1.00E+00	*(2.9)*			g	
U-235	**1.42E-02**	U	3.0E-02	3.0E-02	5.39E-02	pCi/g	87%	*0.26*	1/28/15 07:37 p		1.04	ALP423
						1.06E-02	1.00E+00	*0.96*			g	
U-238	**1.92E-01**		1.1E-01	1.1E-01	5.39E-02	pCi/g	87%	*(3.6)*	1/28/15 07:37 p		1.04	ALP423
						1.06E-02	1.00E+00	*(3.4)*			g	
								Ratio U-234/238 = 0.7				
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M512T1AG		**Report DB ID:**	9M512T10				
Pu-238	**-1.11E-02**	U	3.3E-02	3.3E-02	1.07E-01	pCi/g	92%	*-0.1*	1/27/15 12:47 p		1.0	ALP406
						2.81E-02	1.00E+00	*-0.67*			g	
PU239/40	**3.27E-02**	U	4.6E-02	4.7E-02	4.43E-02	pCi/g	92%	*0.74*	1/27/15 12:47 p		1.0	ALP406
						8.70E-03	1.00E+00	*(1.4)*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M512T1AH		**Report DB ID:**	9M512T10				
AMERICIUM 241	**4.99E-02**	U	6.0E-02	6.1E-02	9.84E-02	pCi/g	100%	*0.51*	1/28/15 10:48 a		1.0	ALP406
						2.59E-02	1.00E+00	*(1.6)*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M512T1AA		**Report DB ID:**	9M512T10				
HEXCHROME	**1.55E-01**	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5027	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
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V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:57:00 AM
Lot-Sample No.:	**J5A220430-5**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V344**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M512V1AF		**Report DB ID:**	9M512V10				
AMERICIUM 241	**-9.25E-03**	U	1.5E-02	1.5E-02	2.49E-02	pCi/g		*-0.37*	1/27/15 06:50 a		411.7	GER19$1
							1.00E+00	*-(1.2)*			g	
CO-60	**9.53E-03**	U	1.1E-02	1.1E-02	2.12E-02	pCi/g		*0.45*	1/27/15 06:50 a		411.7	GER19$1
							5.00E-02	*(1.7)*			g	
CS-137	**6.83E-03**	U	1.1E-02	1.1E-02	1.99E-02	pCi/g		*0.34*	1/27/15 06:50 a		411.7	GER19$1
							1.00E-01	*(1.2)*			g	
EU-152	**1.80E-02**	U	2.5E-02	2.5E-02	4.39E-02	pCi/g		*0.41*	1/27/15 06:50 a		411.7	GER19$1
							1.00E-01	*(1.5)*			g	
EU-154	**7.58E-03**	U	4.1E-02	4.1E-02	7.32E-02	pCi/g		*0.1*	1/27/15 06:50 a		411.7	GER19$1
							1.00E-01	*0.37*			g	
EU-155	**2.32E-02**	U	2.4E-02	2.4E-02	4.06E-02	pCi/g		*0.57*	1/27/15 06:50 a		411.7	GER19$1
							1.00E-01	*(2.)*			g	
K-40	**9.73E+00**		1.2E+00	1.2E+00	1.55E-01	pCi/g		*(62.9)*	1/27/15 06:50 a		411.7	GER19$1
								(16.3)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M512V1AD		**Report DB ID:**	9M512V10				
STRONTIUM	**7.78E-02**	U	1.8E-01	1.9E-01	4.13E-01	pCi/g	88%	*0.19*	1/27/15 07:57 p		2.01	GPC31C
						1.92E-01	1.00E+00	*0.84*			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M512V1AE		**Report DB ID:**	9M512V10				
Ni-63	**1.00E+00**	U	1.6E+00	1.7E+00	3.78E+00	pCi/g	84%	*0.27*	1/28/15 07:41 p		1.04	LSC4
						1.77E+00	3.00E+01	*(1.2)*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M512V1AC		**Report DB ID:**	9M512V10				

TestAmerica Inc
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V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-5
Client Sample ID: J1V344

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:57:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.19E-01		8.5E-02	8.7E-02	6.04E-02	pCi/g	84%	*(2.)*	1/28/15 07:38 p		1.03	ALP427
						1.26E-02	1.00E+00	*(2.7)*			g	
U-235	-6.00E-04	U	3.0E-02	3.0E-02	5.46E-02	pCi/g	84%	*-0.01*	1/28/15 07:38 p		1.03	ALP427
						1.07E-02	1.00E+00	*-0.04*			g	
U-238	8.94E-02		7.3E-02	7.5E-02	5.46E-02	pCi/g	84%	*(1.6)*	1/28/15 07:38 p		1.03	ALP427
						1.07E-02	1.00E+00	*(2.4)*			g	
							Ratio U-234/238 = 1.3					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:** M512V1AG			**Report DB ID:** 9M512V10					
Pu-238	5.25E-03	U	3.0E-02	3.0E-02	9.38E-02	pCi/g	100%	*0.06*	1/27/15 12:47 p		1.04	ALP407
						2.45E-02	1.00E+00	*0.36*			g	
PU239/40	1.34E-02	U	2.9E-02	2.9E-02	5.87E-02	pCi/g	100%	*0.23*	1/27/15 12:47 p		1.04	ALP407
						1.22E-02	1.00E+00	*0.92*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:** M512V1AH			**Report DB ID:** 9M512V10					
AMERICIUM 241	-1.17E-02	U	3.0E-02	3.0E-02	1.00E-01	pCi/g	102%	*-0.12*	1/28/15 10:49 a		1.04	ALP407
						2.68E-02	1.00E+00	*-0.79*			g	
Batch: 5022041	7196_CR6			**Work Order:** M512V1AA			**Report DB ID:** 9M512V10					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.4992	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:52:00 AM
Lot-Sample No.:	**J5A220430-6**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V345**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M512W1AF		**Report DB ID:**	9M512W10				
AMERICIUM 241	3.71E-02	U	5.6E-02	5.6E-02	9.63E-02	pCi/g		*0.38*	1/27/15 11:07 a		394.3	GER7$1
							1.00E+00	*(1.3)*			g	
CO-60	1.48E-02	U	1.6E-02	1.6E-02	3.24E-02	pCi/g		*0.46*	1/27/15 11:07 a		394.3	GER7$1
							5.00E-02	*(1.8)*			g	
CS-137	-1.09E-02	U	1.9E-02	1.9E-02	3.06E-02	pCi/g		*-0.36*	1/27/15 11:07 a		394.3	GER7$1
							1.00E-01	*-(1.2)*			g	
EU-152	-7.23E-02	U	5.3E-02	5.3E-02	7.06E-02	pCi/g		*-(1.)*	1/27/15 11:07 a		394.3	GER7$1
							1.00E-01	*-(2.7)*			g	
EU-154	1.83E-02	U	5.9E-02	5.9E-02	1.08E-01	pCi/g		*0.17*	1/27/15 11:07 a		394.3	GER7$1
							1.00E-01	*0.62*			g	
EU-155	-1.16E-02	U	4.3E-02	4.3E-02	7.35E-02	pCi/g		*-0.16*	1/27/15 11:07 a		394.3	GER7$1
							1.00E-01	*-0.54*			g	
K-40	9.98E+00		1.4E+00	1.4E+00	2.31E-01	pCi/g		*(43.3)*	1/27/15 11:07 a		394.3	GER7$1
								(14.3)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M512W1AD		**Report DB ID:**	9M512W10				
STRONTIUM	7.79E-02	U	1.9E-01	1.9E-01	4.20E-01	pCi/g	92%	*0.19*	1/27/15 08:52 p		2.03	GPC32A
						1.95E-01	1.00E+00	*0.83*			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M512W1AE		**Report DB ID:**	9M512W10				
Ni-63	-1.21E-01	U	1.5E+00	1.6E+00	3.87E+00	pCi/g	84%	*-0.03*	1/28/15 08:04 p		1.01	LSC4
						1.81E+00	3.00E+01	*-0.15*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M512W1AC		**Report DB ID:**	9M512W10				

TestAmerica Inc
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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-6
Client Sample ID: J1V345

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:52:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	2.35E-01		1.1E-01	1.2E-01	5.59E-02	pCi/g	93%	*(4.2)*	1/28/15 07:38 p		1.02	ALP428
						1.17E-02	1.00E+00	*(3.9)*			g	
U-235	0.00E+00	U	0.0E+00	2.8E-02	3.76E-02	pCi/g	93%	*0.*	1/28/15 07:38 p		1.02	ALP428
						7.39E-03	1.00E+00	*0.*			g	
U-238	2.77E-01		1.2E-01	1.3E-01	5.06E-02	pCi/g	93%	*(5.5)*	1/28/15 07:38 p		1.02	ALP428
						9.95E-03	1.00E+00	*(4.2)*			g	
							Ratio U-234/238 = 0.8					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M512W1AG		**Report DB ID:**	9M512W10				
Pu-238	2.42E-02	U	4.1E-02	4.1E-02	7.70E-02	pCi/g	100%	*0.31*	1/27/15 12:47 p		0.99	ALP408
						1.86E-02	1.00E+00	*(1.2)*			g	
PU239/40	-1.73E-03	U	2.9E-02	2.9E-02	6.23E-02	pCi/g	100%	*-0.03*	1/27/15 12:47 p		0.99	ALP408
						1.35E-02	1.00E+00	*-0.12*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M512W1AH		**Report DB ID:**	9M512W10				
AMERICIUM 241	-6.37E-03	U	2.9E-02	2.9E-02	8.38E-02	pCi/g	100%	*-0.08*	1/28/15 10:49 a		0.99	ALP408
						2.10E-02	1.00E+00	*-0.44*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M512W1AA		**Report DB ID:**	9M512W10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5058	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:45:00 AM
Lot-Sample No.:	J5A220430-7	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V346	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M512X1AF		**Report DB ID:**	9M512X10				
AMERICIUM 241	-5.28E-02	U	8.0E-02	8.0E-02	1.31E-01	pCi/g		-0.4	1/27/15 11:08 a		388.5	GER10$1
							1.00E+00	-(1.3)			g	
CO-60	1.73E-02	U	1.6E-02	1.6E-02	3.04E-02	pCi/g		0.57	1/27/15 11:08 a		388.5	GER10$1
							5.00E-02	(2.1)			g	
CS-137	3.83E-02	U	1.9E-02	1.9E-02	3.42E-02	pCi/g		(1.1)	1/27/15 11:08 a		388.5	GER10$1
							1.00E-01	(4.)			g	
EU-152	-3.31E-02	U	1.3E-01	1.3E-01	7.80E-02	pCi/g		-0.42	1/27/15 11:08 a		388.5	GER10$1
							1.00E-01	-0.49			g	
EU-154	-1.41E-02	U	4.9E-02	4.9E-02	8.38E-02	pCi/g		-0.17	1/27/15 11:08 a		388.5	GER10$1
							1.00E-01	-0.57			g	
EU-155	6.16E-02	U	5.7E-02	5.7E-02	9.63E-02	pCi/g		0.64	1/27/15 11:08 a		388.5	GER10$1
							1.00E-01	(2.2)			g	
K-40	1.17E+01		1.5E+00	1.5E+00	2.05E-01	pCi/g		(57.3)	1/27/15 11:08 a		388.5	GER10$1
								(15.9)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M512X1AD		**Report DB ID:**	9M512X10				
STRONTIUM	3.96E-02	U	1.8E-01	1.8E-01	4.15E-01	pCi/g	88%	0.1	1/27/15 08:52 p		2.0	GPC32B
						1.92E-01	1.00E+00	0.44			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M512X1AE		**Report DB ID:**	9M512X10				
Ni-63	3.46E-02	U	1.5E+00	1.6E+00	3.80E+00	pCi/g	87%	0.01	1/28/15 08:27 p		1.0	LSC4
						1.78E+00	3.00E+01	0.04			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M512X1AC		**Report DB ID:**	9M512X10				

TestAmerica Inc
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V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:45:00 AM
Lot-Sample No.:	J5A220430-7	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V346	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.61E-01		1.0E-01	1.1E-01	4.37E-02	pCi/g	81%	*(3.7)*	1/28/15 07:38 p		1.01	ALP429
						8.57E-03	1.00E+00	*(3.)*			g	
U-235	-6.44E-04	U	3.2E-02	3.2E-02	5.86E-02	pCi/g	81%	*-0.01*	1/28/15 07:38 p		1.01	ALP429
						1.15E-02	1.00E+00	*-0.04*			g	
U-238	1.93E-01		1.1E-01	1.2E-01	4.37E-02	pCi/g	81%	*(4.4)*	1/28/15 07:38 p		1.01	ALP429
						8.57E-03	1.00E+00	*(3.3)*			g	
							Ratio U-234/238 = 0.8					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M512X1AG		**Report DB ID:**	9M512X10				
Pu-238	-1.22E-02	U	3.0E-02	3.0E-02	1.02E-01	pCi/g	97%	*-0.12*	1/27/15 12:48 p		1.03	ALP409
						2.73E-02	1.00E+00	*-0.82*			g	
PU239/40	-2.92E-03	U	2.9E-02	2.9E-02	6.98E-02	pCi/g	97%	*-0.04*	1/27/15 12:48 p		1.03	ALP409
						1.60E-02	1.00E+00	*-0.2*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M512X1AH		**Report DB ID:**	9M512X10				
AMERICIUM 241	1.81E-02	U	4.0E-02	4.0E-02	9.43E-02	pCi/g	108%	*0.19*	1/28/15 10:49 a		1.03	ALP409
						2.49E-02	1.00E+00	*0.9*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M512X1AA		**Report DB ID:**	9M512X10				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5098	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
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V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:39:00 AM
Lot-Sample No.:	J5A220430-8	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V347	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M51201AF		**Report DB ID:**	9M512010				
AMERICIUM 241	-3.42E-03	U	2.1E-02	2.1E-02	3.59E-02	pCi/g		-0.1	1/27/15 11:08 a		406.3	GER15$1
							1.00E+00	-0.33			g	
CO-60	2.70E-03	U	1.3E-02	1.3E-02	2.32E-02	pCi/g		0.12	1/27/15 11:08 a		406.3	GER15$1
							5.00E-02	0.43			g	
CS-137	3.63E-03	U	1.4E-02	1.4E-02	2.45E-02	pCi/g		0.15	1/27/15 11:08 a		406.3	GER15$1
							1.00E-01	0.52			g	
EU-152	-2.70E-03	U	3.4E-02	3.4E-02	5.82E-02	pCi/g		-0.05	1/27/15 11:08 a		406.3	GER15$1
							1.00E-01	-0.16			g	
EU-154	8.11E-03	U	4.1E-02	4.1E-02	7.48E-02	pCi/g		0.11	1/27/15 11:08 a		406.3	GER15$1
							1.00E-01	0.39			g	
EU-155	2.66E-02	U	3.3E-02	3.3E-02	5.75E-02	pCi/g		0.46	1/27/15 11:08 a		406.3	GER15$1
							1.00E-01	(1.6)			g	
K-40	1.01E+01		1.3E+00	1.3E+00	2.03E-01	pCi/g		(49.9)	1/27/15 11:08 a		406.3	GER15$1
								(15.9)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51201AD		**Report DB ID:**	9M512010				
STRONTIUM	-8.32E-02	U	1.7E-01	1.7E-01	4.31E-01	pCi/g	88%	-0.19	1/27/15 08:52 p		1.99	GPC32C
						2.00E-01	1.00E+00	-0.97			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M51201AE		**Report DB ID:**	9M512010				
Ni-63	-1.04E-01	U	1.6E+00	1.8E+00	4.17E+00	pCi/g	78%	-0.02	1/28/15 08:49 p		1.01	LSC4
						1.95E+00	3.00E+01	-0.12			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M51201AC		**Report DB ID:**	9M512010				

TestAmerica Inc
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V5.3.6.5 A2002

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

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-8
Client Sample ID: J1V347

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:39:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.22E-01		9.4E-02	9.6E-02	7.65E-02	pCi/g	71%	*(1.6)*	1/28/15 07:39 p		1.03	ALP430
						1.66E-02	1.00E+00	*(2.5)*			g	
U-235	3.40E-02	U	5.0E-02	5.0E-02	7.12E-02	pCi/g	71%	*0.48*	1/28/15 07:39 p		1.03	ALP430
						1.49E-02	1.00E+00	*(1.3)*			g	
U-238	1.93E-01		1.2E-01	1.2E-01	7.12E-02	pCi/g	71%	*(2.7)*	1/28/15 07:39 p		1.03	ALP430
						1.49E-02	1.00E+00	*(3.1)*			g	
							Ratio U-234/238 = 0.6					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M51201AG		**Report DB ID:**	9M512010				
Pu-238	6.16E-03	U	2.8E-02	2.8E-02	8.66E-02	pCi/g	100%	*0.07*	1/27/15 12:48 p		1.03	ALP410
						2.23E-02	1.00E+00	*0.43*			g	
PU239/40	1.34E-02	U	2.8E-02	2.8E-02	5.09E-02	pCi/g	100%	*0.26*	1/27/15 12:48 p		1.03	ALP410
						1.00E-02	1.00E+00	*0.96*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51201AH		**Report DB ID:**	9M512010				
AMERICIUM 241	-1.06E-02	U	2.8E-02	2.8E-02	9.46E-02	pCi/g	104%	*-0.11*	1/28/15 10:50 a		1.03	ALP410
						2.51E-02	1.00E+00	*-0.75*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M51201AA		**Report DB ID:**	9M512010				
HEXCHROME	1.75E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.1)*	1/26/15 02:47 p		2.5046	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:32:00 AM
Lot-Sample No.:	**J5A220430-9**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V348**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:** M51211AF			**Report DB ID:** 9M512110					
AMERICIUM 241	**6.03E-03**	U	6.1E-02	6.1E-02	1.04E-01	pCi/g		*0.06*	1/27/15 02:31 p		417.8	GER7$1
							1.00E+00	*0.2*			g	
CO-60	**-7.83E-03**	U	1.8E-02	1.8E-02	3.10E-02	pCi/g		*-0.25*	1/27/15 02:31 p		417.8	GER7$1
							5.00E-02	*-0.86*			g	
CS-137	**5.79E-02**		2.7E-02	2.7E-02	3.38E-02	pCi/g		*(1.7)*	1/27/15 02:31 p		417.8	GER7$1
							1.00E-01	*(4.3)*			g	
EU-152	**-3.99E-02**	U	5.3E-02	5.3E-02	7.66E-02	pCi/g		*-0.52*	1/27/15 02:31 p		417.8	GER7$1
							1.00E-01	*-(1.5)*			g	
EU-154	**3.42E-02**	U	6.0E-02	6.0E-02	1.11E-01	pCi/g		*0.31*	1/27/15 02:31 p		417.8	GER7$1
							1.00E-01	*(1.1)*			g	
EU-155	**-1.61E-02**	U	4.5E-02	4.5E-02	7.66E-02	pCi/g		*-0.21*	1/27/15 02:31 p		417.8	GER7$1
							1.00E-01	*-0.71*			g	
K-40	**1.20E+01**		1.6E+00	1.6E+00	3.11E-01	pCi/g		*(38.6)*	1/27/15 02:31 p		417.8	GER7$1
								(14.8)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:** M51211AD			**Report DB ID:** 9M512110					
STRONTIUM	**1.56E-01**	U	1.9E-01	1.9E-01	4.04E-01	pCi/g	98%	*0.38*	1/27/15 08:52 p		2.0	GPC32D
						1.88E-01	1.00E+00	*(1.6)*			g	
Batch: 5022035	NI63_LSC			**Work Order:** M51211AE			**Report DB ID:** 9M512110					
Ni-63	**2.91E-01**	U	1.4E+00	1.6E+00	3.57E+00	pCi/g	90%	*0.08*	1/28/15 09:12 p		1.03	LSC4
						1.67E+00	3.00E+01	*0.37*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:** M51211AC			**Report DB ID:** 9M512110					

TestAmerica Inc
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V5.3.6.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-9
Client Sample ID: J1V348

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:32:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.44E-01		8.8E-02	9.2E-02	6.38E-02	pCi/g	95%	*(2.3)*	1/28/15 07:39 p		1.03	ALP431
						1.46E-02	1.00E+00	*(3.1)*			g	
U-235	3.94E-02	U	4.6E-02	4.7E-02	4.85E-02	pCi/g	95%	*0.81*	1/28/15 07:39 p		1.03	ALP431
						9.54E-03	1.00E+00	*(1.7)*			g	
U-238	2.11E-01		1.1E-01	1.1E-01	5.75E-02	pCi/g	95%	*(3.7)*	1/28/15 07:39 p		1.03	ALP431
						1.25E-02	1.00E+00	*(3.7)*			g	
							Ratio U-234/238 = 0.7					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:** M51211AG			**Report DB ID:** 9M512110					
Pu-238	-1.09E-02	U	3.2E-02	3.2E-02	1.04E-01	pCi/g	86%	*-0.1*	1/27/15 12:48 p		1.04	ALP411
						2.74E-02	1.00E+00	*-0.67*			g	
PU239/40	-6.38E-04	U	3.2E-02	3.2E-02	5.81E-02	pCi/g	86%	*-0.01*	1/27/15 12:48 p		1.04	ALP411
						1.14E-02	1.00E+00	*-0.04*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:** M51211AH			**Report DB ID:** 9M512110					
AMERICIUM 241	-1.12E-02	U	2.8E-02	2.8E-02	9.57E-02	pCi/g	98%	*-0.12*	1/28/15 10:50 a		1.04	ALP411
						2.56E-02	1.00E+00	*-0.79*			g	
Batch: 5022041	7196_CR6			**Work Order:** M51211AA			**Report DB ID:** 9M512110					
HEXCHROME	1.79E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.2)*	1/26/15 02:47 p		2.5007	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:13:00 AM
Lot-Sample No.:	**J5A220430-10**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V349**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:** M51221AF			**Report DB ID:** 9M512210					
AMERICIUM 241	**-4.46E-02**	U	9.1E-02	9.1E-02	1.50E-01	pCi/g		*-0.3*	1/27/15 02:32 p		368.6	GER10$1
							1.00E+00	*-0.98*			g	
CO-60	**2.19E-02**	U	1.8E-02	1.8E-02	3.36E-02	pCi/g		*0.65*	1/27/15 02:32 p		368.6	GER10$1
							5.00E-02	*(2.4)*			g	
CS-137	**5.13E-04**	U	1.9E-02	1.9E-02	3.21E-02	pCi/g		*0.02*	1/27/15 02:32 p		368.6	GER10$1
							1.00E-01	*0.05*			g	
EU-152	**5.16E-02**	U	1.3E-01	1.3E-01	8.33E-02	pCi/g		*0.62*	1/27/15 02:32 p		368.6	GER10$1
							1.00E-01	*0.82*			g	
EU-154	**-3.29E-02**	U	5.4E-02	5.4E-02	9.02E-02	pCi/g		*-0.36*	1/27/15 02:32 p		368.6	GER10$1
							1.00E-01	*-(1.2)*			g	
EU-155	**-5.95E-03**	U	6.4E-02	6.4E-02	1.06E-01	pCi/g		*-0.06*	1/27/15 02:32 p		368.6	GER10$1
							1.00E-01	*-0.19*			g	
K-40	**1.40E+01**		1.7E+00	1.7E+00	2.30E-01	pCi/g		*(60.6)*	1/27/15 02:32 p		368.6	GER10$1
								(16.1)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:** M51221AD			**Report DB ID:** 9M512210					
STRONTIUM	**-1.26E-01**	U	1.5E-01	1.5E-01	4.01E-01	pCi/g	88%	*-0.32*	1/27/15 08:52 p		2.01	GPC31B
						1.85E-01	1.00E+00	*-(1.6)*			g	
Batch: 5022035	NI63_LSC			**Work Order:** M51221AE			**Report DB ID:** 9M512210					
Ni-63	**-6.01E-02**	U	1.5E+00	1.7E+00	3.91E+00	pCi/g	85%	*-0.02*	1/28/15 09:35 p		0.99	LSC4
						1.83E+00	3.00E+01	*-0.07*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:** M51221AC			**Report DB ID:** 9M512210					

TestAmerica Inc
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V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-10
Client Sample ID: J1V349

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:13:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.24E-01		9.4E-02	9.7E-02	4.81E-02	pCi/g	74%	*(2.6)*	1/28/15 07:40 p		1.01	ALP433
						9.44E-03	1.00E+00	*(2.6)*			g	
U-235	-7.10E-04	U	3.6E-02	3.6E-02	6.46E-02	pCi/g	74%	*-0.01*	1/28/15 07:40 p		1.01	ALP433
						1.27E-02	1.00E+00	*-0.04*			g	
U-238	1.94E-01		1.2E-01	1.2E-01	6.46E-02	pCi/g	74%	*(3.)*	1/28/15 07:40 p		1.01	ALP433
						1.27E-02	1.00E+00	*(3.2)*			g	
							Ratio U-234/238 = 0.6					
Batch: 5022041	7196_CR6			**Work Order:** M51221AA			**Report DB ID:** 9M512210					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5126	
							1.55E-01	*N/A*			g	
Batch: 5027050	PUISO_PLATE_AEA			**Work Order:** M51223AG			**Report DB ID:** 9M512230					
Pu-238	8.18E-03	U	4.1E-02	4.1E-02	1.29E-01	pCi/g	76%	*0.06*	1/29/15 09:20 a		1.0	ALP401
						3.35E-02	1.00E+00	*0.4*			g	
PU239/40	-1.64E-03	U	4.1E-02	4.1E-02	8.23E-02	pCi/g	76%	*-0.02*	1/29/15 09:20 a		1.0	ALP401
						1.72E-02	1.00E+00	*-0.08*			g	
Batch: 5027052	AMCMISO_EIE_PLT_AEA			**Work Order:** M51222AH			**Report DB ID:** 9M512220					
AMERICIUM 241	4.12E-03	U	3.0E-02	3.0E-02	1.02E-01	pCi/g	108%	*0.04*	1/29/15 09:21 a		1.0	ALP405
						2.59E-02	1.00E+00	*0.28*			g	

No. of Results: 16 **Comments:**

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:19:00 AM
Lot-Sample No.:	J5A220430-11	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V350	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:** M51231AF			**Report DB ID:** 9M512310					
AMERICIUM 241	8.15E-03	U	2.3E-02	2.3E-02	4.03E-02	pCi/g		*0.2*	1/27/15 02:32 p		396.2	GER15$1
							1.00E+00	*0.7*			g	
CO-60	-6.24E-03	U	1.3E-02	1.3E-02	2.26E-02	pCi/g		*-0.28*	1/27/15 02:32 p		396.2	GER15$1
							5.00E-02	*-0.95*			g	
CS-137	-1.18E-02	U	1.4E-02	1.4E-02	2.31E-02	pCi/g		*-0.51*	1/27/15 02:32 p		396.2	GER15$1
							1.00E-01	*-(1.7)*			g	
EU-152	-6.51E-03	U	3.6E-02	3.6E-02	6.13E-02	pCi/g		*-0.11*	1/27/15 02:32 p		396.2	GER15$1
							1.00E-01	*-0.36*			g	
EU-154	-6.08E-03	U	4.2E-02	4.2E-02	7.35E-02	pCi/g		*-0.08*	1/27/15 02:32 p		396.2	GER15$1
							1.00E-01	*-0.29*			g	
EU-155	3.55E-02	U	3.6E-02	3.6E-02	6.13E-02	pCi/g		*0.58*	1/27/15 02:32 p		396.2	GER15$1
							1.00E-01	*(2.)*			g	
K-40	1.09E+01		1.4E+00	1.4E+00	2.09E-01	pCi/g		*(52.5)*	1/27/15 02:32 p		396.2	GER15$1
								(16.1)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:** M51231AD			**Report DB ID:** 9M512310					
STRONTIUM	7.84E-02	U	2.2E-01	2.2E-01	4.86E-01	pCi/g	74%	*0.16*	1/27/15 08:52 p		2.01	GPC31C
						2.26E-01	1.00E+00	*0.73*			g	
Batch: 5022035	NI63_LSC			**Work Order:** M51231AE			**Report DB ID:** 9M512310					
Ni-63	-4.67E-01	U	1.5E+00	1.6E+00	3.76E+00	pCi/g	88%	*-0.12*	1/28/15 10:21 p		0.99	LSC4
						1.76E+00	3.00E+01	*-0.59*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:** M51231AC			**Report DB ID:** 9M512310					

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 A2002

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FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-11
Client Sample ID: J1V350

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:19:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	2.27E-01		1.2E-01	1.2E-01	4.10E-02	pCi/g	84%	*(5.5)*	1/28/15 07:40 p		1.02	ALP434
						8.04E-03	1.00E+00	*(3.7)*			g	
U-235	-6.05E-04	U	3.0E-02	3.0E-02	5.50E-02	pCi/g	84%	*-0.01*	1/28/15 07:40 p		1.02	ALP434
						1.08E-02	1.00E+00	*-0.04*			g	
U-238	2.71E-01		1.3E-01	1.4E-01	5.50E-02	pCi/g	84%	*(4.9)*	1/28/15 07:40 p		1.02	ALP434
						1.08E-02	1.00E+00	*(4.)*			g	
							Ratio U-234/238 = 0.8					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:** M51231AG			**Report DB ID:** 9M512310					
Pu-238	-2.91E-03	U	2.9E-02	2.9E-02	6.97E-02	pCi/g	99%	*-0.04*	1/27/15 12:48 p		1.02	ALP414
						1.60E-02	1.00E+00	*-0.2*			g	
PU239/40	0.00E+00	U	0.0E+00	2.9E-02	3.94E-02	pCi/g	99%	*0.*	1/27/15 12:48 p		1.02	ALP414
						7.74E-03	1.00E+00	*0.*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:** M51231AH			**Report DB ID:** 9M512310					
AMERICIUM 241	-2.88E-03	U	2.9E-02	2.9E-02	6.90E-02	pCi/g	105%	*-0.04*	1/28/15 10:50 a		1.02	ALP414
						1.58E-02	1.00E+00	*-0.2*			g	
Batch: 5022041	7196_CR6			**Work Order:** M51231AA			**Report DB ID:** 9M512310					
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5055	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:26:00 AM
Lot-Sample No.:	**J5A220430-12**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V351**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:** M51241AF			**Report DB ID:** 9M512410					
AMERICIUM 241	**2.35E-02**	U	6.9E-02	6.9E-02	1.18E-01	pCi/g		*0.2*	1/27/15 06:06 p		369.1	GER7$1
							1.00E+00	*0.68*			g	
CO-60	**-3.29E-03**	U	2.1E-02	2.1E-02	3.67E-02	pCi/g		*-0.09*	1/27/15 06:06 p		369.1	GER7$1
							5.00E-02	*-0.32*			g	
CS-137	**2.95E-03**	U	2.3E-02	2.3E-02	3.93E-02	pCi/g		*0.08*	1/27/15 06:06 p		369.1	GER7$1
							1.00E-01	*0.26*			g	
EU-152	**-6.80E-02**	U	6.0E-02	6.0E-02	8.45E-02	pCi/g		*-0.8*	1/27/15 06:06 p		369.1	GER7$1
							1.00E-01	*-(2.3)*			g	
EU-154	**-1.20E-01**	U	6.9E-02	6.9E-02	1.01E-01	pCi/g		*-(1.2)*	1/27/15 06:06 p		369.1	GER7$1
							1.00E-01	*-(3.5)*			g	
EU-155	**4.44E-02**	U	5.2E-02	5.2E-02	9.15E-02	pCi/g		*0.49*	1/27/15 06:06 p		369.1	GER7$1
							1.00E-01	*(1.7)*			g	
K-40	**1.30E+01**		1.8E+00	1.8E+00	3.40E-01	pCi/g		*(38.2)*	1/27/15 06:06 p		369.1	GER7$1
								(14.6)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:** M51241AD			**Report DB ID:** 9M512410					
STRONTIUM	**1.22E-01**	U	1.9E-01	1.9E-01	4.07E-01	pCi/g	84%	*0.3*	1/27/15 08:52 p		2.0	GPC31D
						1.87E-01	1.00E+00	*(1.3)*			g	
Batch: 5022035	NI63_LSC			**Work Order:** M51241AE			**Report DB ID:** 9M512410					
Ni-63	**-2.24E-01**	U	1.4E+00	1.5E+00	3.58E+00	pCi/g	90%	*-0.06*	1/28/15 10:44 p		1.02	LSC4
						1.67E+00	3.00E+01	*-0.29*			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:** M51241AC			**Report DB ID:** 9M512410					

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V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-12
Client Sample ID: J1V351

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:26:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	1.50E-01		9.1E-02	9.5E-02	5.51E-02	pCi/g	96%	*(2.7)*	1/28/15 07:41 p		1.04	ALP435
						1.15E-02	1.00E+00	*(3.2)*			g	
U-235	0.00E+00	U	0.0E+00	2.7E-02	3.71E-02	pCi/g	96%	*0.*	1/28/15 07:41 p		1.04	ALP435
						7.29E-03	1.00E+00	*0.*			g	
U-238	2.33E-01		1.1E-01	1.2E-01	3.71E-02	pCi/g	96%	*(6.3)*	1/28/15 07:41 p		1.04	ALP435
						7.29E-03	1.00E+00	*(3.9)*			g	
							Ratio U-234/238 = 0.6					
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:** M51241AG			**Report DB ID:** 9M512410					
Pu-238	2.76E-02	U	4.1E-02	4.1E-02	5.78E-02	pCi/g	97%	*0.48*	1/27/15 12:49 p		1.03	ALP420
						1.21E-02	1.00E+00	*(1.3)*			g	
PU239/40	-2.87E-03	U	2.9E-02	2.9E-02	6.88E-02	pCi/g	97%	*-0.04*	1/27/15 12:49 p		1.03	ALP420
						1.58E-02	1.00E+00	*-0.2*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:** M51241AH			**Report DB ID:** 9M512410					
AMERICIUM 241	1.41E-02	U	2.9E-02	2.9E-02	5.33E-02	pCi/g	95%	*0.26*	1/28/15 10:51 a		1.03	ALP420
						1.05E-02	1.00E+00	*0.96*			g	
Batch: 5022041	7196_CR6			**Work Order:** M51241AA			**Report DB ID:** 9M512410					
HEXCHROME	1.73E-01			0.0E+00	1.55E-01	mg/kg	N/A	*(1.1)*	1/26/15 02:47 p		2.5123	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:13:00 AM
Lot-Sample No.:	J5A220430-13	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V352	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M51251AF		**Report DB ID:**	9M512510				
AMERICIUM 241	-6.79E-02	U	8.7E-02	8.7E-02	1.41E-01	pCi/g		-0.48	1/27/15 06:06 p		392.6	GER10$1
							1.00E+00	-(1.6)			g	
CO-60	-5.30E-03	U	1.6E-02	1.6E-02	2.77E-02	pCi/g		-0.19	1/27/15 06:06 p		392.6	GER10$1
							5.00E-02	-0.65			g	
CS-137	8.85E-03	U	1.8E-02	1.8E-02	3.06E-02	pCi/g		0.29	1/27/15 06:06 p		392.6	GER10$1
							1.00E-01	(1.)			g	
EU-152	-3.02E-02	U	1.5E-01	1.5E-01	8.59E-02	pCi/g		-0.35	1/27/15 06:06 p		392.6	GER10$1
							1.00E-01	-0.41			g	
EU-154	-1.59E-02	U	5.2E-02	5.2E-02	8.85E-02	pCi/g		-0.18	1/27/15 06:06 p		392.6	GER10$1
							1.00E-01	-0.61			g	
EU-155	2.79E-02	U	6.3E-02	6.3E-02	1.05E-01	pCi/g		0.27	1/27/15 06:06 p		392.6	GER10$1
							1.00E-01	0.89			g	
K-40	1.37E+01		1.7E+00	1.7E+00	2.19E-01	pCi/g		(62.5)	1/27/15 06:06 p		392.6	GER10$1
								(16.)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M51251AD		**Report DB ID:**	9M512510				
STRONTIUM	9.49E-02	U	1.8E-01	1.8E-01	3.87E-01	pCi/g	88%	0.25	1/27/15 09:46 p		2.04	GPC31B
						1.79E-01	1.00E+00	(1.1)			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M51251AE		**Report DB ID:**	9M512510				
Ni-63	7.64E-01	U	1.4E+00	1.5E+00	3.47E+00	pCi/g	95%	0.22	1/28/15 11:07 p		1.0	LSC4
						1.62E+00	3.00E+01	0.99			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M51251AC		**Report DB ID:**	9M512510				

TestAmerica Inc
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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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM I

SAMPLE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc
Lot-Sample No.: J5A220430-13
Client Sample ID: J1V352

SDG: JP0897
Report No. : 64493
COC No. : RC-075-464

Collection Date: 1/21/2015 9:13:00 AM
Received Date: 1/22/2015 1:40:00 PM
Matrix: SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-234	2.85E-02	U	4.1E-02	4.1E-02	5.30E-02	pCi/g	88%	*0.54*	1/28/15 09:36 p		1.03	ALP428
						1.04E-02	1.00E+00	*(1.4)*			g	
U-235	1.40E-02	U	2.9E-02	2.9E-02	5.30E-02	pCi/g	88%	*0.26*	1/28/15 09:36 p		1.03	ALP428
						1.04E-02	1.00E+00	*0.96*			g	
U-238	2.03E-01		1.1E-01	1.1E-01	5.30E-02	pCi/g	88%	*(3.8)*	1/28/15 09:36 p		1.03	ALP428
						1.04E-02	1.00E+00	*(3.5)*			g	
								Ratio U-234/238 = 0.1				
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M51251AG		**Report DB ID:**	9M512510				
Pu-238	-4.42E-03	U	2.8E-02	2.8E-02	7.38E-02	pCi/g	100%	*-0.06*	1/27/15 12:49 p		1.01	ALP421
						1.79E-02	1.00E+00	*-0.32*			g	
PU239/40	-1.11E-03	U	2.8E-02	2.8E-02	5.57E-02	pCi/g	100%	*-0.02*	1/27/15 12:49 p		1.01	ALP421
						1.16E-02	1.00E+00	*-0.08*			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51251AH		**Report DB ID:**	9M512510				
AMERICIUM 241	9.40E-03	U	2.8E-02	2.8E-02	7.38E-02	pCi/g	110%	*0.13*	1/28/15 10:51 a		1.01	ALP421
						1.79E-02	1.00E+00	*0.67*			g	
Batch: 5022041	7196_CR6			**Work Order:**	M51251AA		**Report DB ID:**	9M512510				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	1/26/15 02:47 p		2.5079	
							1.55E-01	*N/A*			g	

No. of Results: 16 **Comments:**

TestAmerica Inc
rptSTLRchSample
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 29-Jan-15

DUPLICATE RESULTS

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:10:00 AM
Lot-Sample No.:	J5A220430-1	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V340	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022041	7196_CR6			**Work Order:** M512F1AP		**Report DB ID:** M512F1ER			**Orig Sa DB ID:** 9M512F10			
HEXCHROME	2.17E-01			0.0E+00	1.55E-01	mg/kg	N/A	(1.4)	1/26/15 02:47 p		2.5021	
	2.82E-01		**RPD**	**26.1**		1.55E-01		N/A			g	

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

TestAmerica Inc
rptSTLRchDupV5.
3.6.5 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.

FORM II

Date: 29-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:10:00 AM
Lot-Sample No.:	**J5A220430-1**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V340 DUP**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:** M512F1AL		**Report DB ID:** M512F1LR			**Orig Sa DB ID:** 9M512F10			
Pu-238	2.92E-03	U	3.0E-02	3.0E-02	1.00E-01	pCi/g	98%	0.03	1/27/15 12:46 p		1.02	ALP403
	5.48E-03	U	**RPD**	**60.9**		1.00E+00		0.2			g	
PU239/40	-1.75E-03	U	2.9E-02	2.9E-02	6.32E-02	pCi/g	98%	-0.03	1/27/15 12:46 p		1.02	ALP403
	-1.83E-03	U	**RPD**	**-4.1**		1.00E+00		-0.12			g	
									Alpha Spec Result Sum = 1.2E-03			
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:** M512F1AM		**Report DB ID:** M512F1MR			**Orig Sa DB ID:** 9M512F10			
AMERICIUM 241	-1.15E-02	U	2.9E-02	2.9E-02	9.85E-02	pCi/g	107%	-0.12	1/28/15 10:48 a		1.02	ALP403
	-1.22E-02	U	**RPD**	**-5.9**		1.00E+00		-0.79			g	

No. of Results: 3 **Comments:**

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, Mdc/Mda/Mdi, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 29-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:16:00 AM
Lot-Sample No.:	**J5A220430-2**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V341 DUP**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:** M512Q1AJ		**Report DB ID:** M512Q1JR			**Orig Sa DB ID:** 9M512Q10			
U-234	1.63E-01		9.8E-02	1.0E-01	4.01E-02	pCi/g	85%	(4.1)	1/28/15 07:36 p		1.01	ALP421
	2.30E-01		**RPD**	**34.5**		1.00E+00		(3.2)			g	
U-235	0.00E+00	U	0.0E+00	3.0E-02	4.01E-02	pCi/g	85%	0.	1/28/15 07:36 p		1.01	ALP421
	-5.82E-04	U	**RPD**	**-200.0**		1.00E+00		0.			g	
U-238	1.18E-01		8.4E-02	8.6E-02	4.01E-02	pCi/g	85%	(3.)	1/28/15 07:36 p		1.01	ALP421
	2.32E-01		**RPD**	**65.0**		1.00E+00		(2.7)			g	

Ratio U-234/238 = 1.4 ***Alpha Spec Result Sum = 2.8E-01***

No. of Results: 3 **Comments:**

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 29-Jan-15

DUPLICATE RESULTS

Lab Name:	TestAmerica Inc	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:23:00 AM
Lot-Sample No.:	J5A220430-3	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	J1V342 DUP	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022035	NI63_LSC			**Work Order:** M512R1AJ		**Report DB ID:** M512R1JR			**Orig Sa DB ID:** 9M512R10			
Ni-63	7.74E-01	U	1.7E+00	1.8E+00	4.07E+00	pCi/g	81%	0.19	1/28/15 06:55 p		1.0	LSC4
	-3.44E-01	U	**RPD**	**520.4**		3.00E+01		0.87			g	

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

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 29-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 10:04:00 AM
Lot-Sample No.:	**J5A220430-4**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V343 DUP**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:** M512T1AJ		**Report DB ID:** M512T1JR			**Orig Sa DB ID:** 9M512T10			
AMERICIUM 241	5.61E-03	U	1.4E-02	1.4E-02	2.43E-02	pCi/g		0.23	1/27/15 06:50 a		386.6	GER18$1
	5.53E-03	U	**RPD**	**1.5**		1.00E+00		0.79			g	
CO-60	7.61E-03	U	1.2E-02	1.2E-02	2.29E-02	pCi/g		0.33	1/27/15 06:50 a		386.6	GER18$1
	1.03E-04	U	**RPD**	**194.7**		5.00E-02		(1.3)			g	
CS-137	3.45E-01		4.9E-02	4.9E-02	2.03E-02	pCi/g		(17.)	1/27/15 06:50 a		386.6	GER18$1
	4.36E-01		**RPD**	**23.3**		1.00E-01		(14.)			g	
EU-152	6.35E-02	U	5.1E-02	5.1E-02	4.87E-02	pCi/g		(1.3)	1/27/15 06:50 a		386.6	GER18$1
	2.60E-02	U	**RPD**	**83.6**		1.00E-01		(2.5)			g	
EU-154	2.24E-02	U	3.8E-02	3.8E-02	7.02E-02	pCi/g		0.32	1/27/15 06:50 a		386.6	GER18$1
	-6.04E-02	U	**RPD**	**-435.7**		1.00E-01		(1.2)			g	
EU-155	1.62E-02	U	2.1E-02	2.1E-02	3.72E-02	pCi/g		0.43	1/27/15 06:50 a		386.6	GER18$1
	4.13E-02	U	**RPD**	**87.4**		1.00E-01		(1.5)			g	
K-40	1.05E+01		1.3E+00	1.3E+00	1.64E-01	pCi/g		(64.3)	1/27/15 06:50 a		386.6	GER18$1
	9.97E+00		**RPD**	**5.5**				(16.5)			g	

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

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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 29-Jan-15

DUPLICATE RESULTS

Lab Name:	**TestAmerica Inc**	**SDG:**	JP0897	**Collection Date:**	1/21/2015 9:57:00 AM
Lot-Sample No.:	**J5A220430-5**	**Report No. :**	64493	**Received Date:**	1/22/2015 1:40:00 PM
Client Sample ID:	**J1V344 DUP**	**COC No. :**	RC-075-464	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:** M512V1AJ		**Report DB ID:** M512V1JR			**Orig Sa DB ID:** 9M512V10			
STRONTIUM	3.80E-02	U	1.6E-01	1.6E-01	3.62E-01	pCi/g	97%	0.11	1/27/15 07:57 p		2.04	GPC31B
	7.78E-02	U	**RPD**	**68.7**		1.00E+00		0.48			g	

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

TestAmerica Inc
rptSTLRchDupV5.
3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0897

Report No. : 64493

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 5022041	7196_CR6			**Work Order:**	M516P1AA		**Report DB ID:**	M516P1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	1/26/15 02:47 p		2.5	
						1.55E-01		N/A			g	
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M514T1AA		**Report DB ID:**	M514T1AB				
Pu-238	-1.75E-03	U	2.9E-02	2.9E-02	6.29E-02	pCi/g	97%	-0.03	1/27/15 12:49 p		1.03	ALP422
					1.37E-02	1.00E+00		-0.12			g	
PU239/40	-1.16E-03	U	2.9E-02	2.9E-02	5.86E-02	pCi/g	97%	-0.02	1/27/15 12:49 p		1.03	ALP422
					1.22E-02	1.00E+00		-0.08			g	
Batch: 5027050	PUISO_PLATE_AEA			**Work Order:**	M52401AA		**Report DB ID:**	M52401AB				
Pu-238	6.52E-03	U	3.0E-02	3.0E-02	9.17E-02	pCi/g	95%	0.07	1/29/15 09:20 a		1.04	ALP403
					2.36E-02	1.00E+00		0.43			g	
PU239/40	-1.18E-03	U	3.0E-02	3.0E-02	5.96E-02	pCi/g	95%	-0.02	1/29/15 09:20 a		1.04	ALP403
					1.24E-02	1.00E+00		-0.08			g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51431AA		**Report DB ID:**	M51431AB				
AMERICIUM 241	-1.83E-03	U	3.1E-02	3.1E-02	6.58E-02	pCi/g	93%	-0.03	1/28/15 10:51 a		1.03	ALP422
					1.43E-02	1.00E+00		-0.12			g	
Batch: 5027052	AMCMISO_EIE_PLT_AEA			**Work Order:**	M526W1AA		**Report DB ID:**	M526W1AB				
AMERICIUM 241	4.20E-03	U	2.7E-02	2.7E-02	8.96E-02	pCi/g	97%	0.05	1/29/15 09:21 a		1.18	ALP406
					2.25E-02	1.00E+00		0.32			g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M514R1AA		**Report DB ID:**	M514R1AB				
U-234	1.32E-02	U	2.8E-02	2.8E-02	5.02E-02	pCi/g	91%	0.26	1/28/15 09:36 p		1.04	ALP429
					9.89E-03	1.00E+00		0.96			g	

TestAmerica Inc
rptSTLRchBlank
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0897

Report No. : 64493

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
U-235	1.32E-02	U	2.8E-02	2.8E-02	5.02E-02	pCi/g	91%	0.26	1/28/15 09:36 p		1.04	ALP429
					9.89E-03	1.00E+00		0.96			g	
U-238	0.00E+00	U	0.0E+00	2.8E-02	3.74E-02	pCi/g	91%	0.	1/28/15 09:36 p		1.04	ALP429
					7.34E-03	1.00E+00		0.			g	
Batch: 5022035	NI63_LSC			**Work Order:**	M514P1AA		**Report DB ID:**	M514P1AB				
Ni-63	7.22E-01	U	7.9E-01	8.6E-01	1.89E+00	pCi/g	86%	0.38	1/28/15 11:30 p		2.01	LSC4
					8.85E-01	3.00E+01		(1.7)			g	
Batch: 5022033	GAMMA_GS			**Work Order:**	M514H1AA		**Report DB ID:**	M514H1AB				
AMERICIUM 241	1.40E-02	U	1.4E-02	1.4E-02	2.58E-02	pCi/g		0.54	1/27/15 06:08 p		348.0	GER15$1
						1.00E+00		(2.)			g	
CO-60	5.01E-03	U	1.1E-02	1.1E-02	2.07E-02	pCi/g		0.24	1/27/15 06:08 p		348.0	GER15$1
						5.00E-02		0.95			g	
CS-137	-9.37E-03	U	1.1E-02	1.1E-02	1.74E-02	pCi/g		-0.54	1/27/15 06:08 p		348.0	GER15$1
						1.00E-01		-(1.7)			g	
EU-152	2.76E-02	U	2.9E-02	2.9E-02	5.34E-02	pCi/g		0.52	1/27/15 06:08 p		348.0	GER15$1
						1.00E-01		(1.9)			g	
EU-154	-7.09E-03	U	3.3E-02	3.3E-02	5.88E-02	pCi/g		-0.12	1/27/15 06:08 p		348.0	GER15$1
						1.00E-01		-0.43			g	
EU-155	8.30E-03	U	2.3E-02	2.3E-02	4.06E-02	pCi/g		0.2	1/27/15 06:08 p		348.0	GER15$1
						1.00E-01		0.71			g	
K-40	-3.97E-01	U	2.9E-01	2.9E-01	6.03E-01	pCi/g		-0.66	1/27/15 06:08 p		348.0	GER15$1
								-(2.7)			g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M514K1AA		**Report DB ID:**	M514K1AB				

TestAmerica Inc
rptSTLRchBlank
V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

BLANK RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0897

Report No. : 64493

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
STRONTIUM	9.52E-02	U	1.8E-01	1.8E-01	3.93E-01	pCi/g	90%	0.24	1/27/15 09:46 p		2.03	GPC31C
					1.82E-01	1.00E+00		(1.1)			g	

No. of Results: 19 Comments:

TestAmerica Inc
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V5.3.6.5 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, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.

FORM II

LCS RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0897

Report No. : 64493

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 5022041	7196_CR6			**Work Order:**	M516P1AC		**Report DB ID:**	M516P1AS					
HEXCHROME	1.87E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		94%	1/26/15 02:47 p	2.5	
							Rec Limits:	80	120	-0.1		g	
Batch: 5022037	PUISO_PLATE_AEA			**Work Order:**	M514T1AC		**Report DB ID:**	M514T1CS					
PU239/40	5.72E+00		6.3E-01	1.2E+00	7.00E-02	pCi/g	83%	4.99E+00	1.5E-01	115%	1/27/15 12:49 p	1.02	ALP423
							Rec Limits:	70	130	0.1		g	
Batch: 5027050	PUISO_PLATE_AEA			**Work Order:**	M52401AC		**Report DB ID:**	M52401CS					
PU239/40	5.42E+00		5.7E-01	1.1E+00	6.47E-02	pCi/g	96%	4.60E+00	1.4E-01	118%	1/29/15 09:20 a	1.04	ALP404
							Rec Limits:	70	130	0.2		g	
Batch: 5022038	AMCMISO_EIE_PLT_AEA			**Work Order:**	M51431AC		**Report DB ID:**	M51431CS					
AMERICIUM 241	4.17E+00		5.0E-01	9.1E-01	6.55E-02	pCi/g	95%	4.61E+00	4.7E-02	90%	1/28/15 10:51 a	1.02	ALP423
							Rec Limits:	70	130	-0.1		g	
Batch: 5027052	AMCMISO_EIE_PLT_AEA			**Work Order:**	M526W1AC		**Report DB ID:**	M526W1CS					
AMERICIUM 241	4.57E+00		4.9E-01	9.4E-01	9.07E-02	pCi/g	106%	4.19E+00	4.2E-02	109%	1/29/15 09:21 a	1.18	ALP407
							Rec Limits:	70	130	0.1		g	
Batch: 5022036	UISO_IE_PLATE_AEA			**Work Order:**	M514R1AC		**Report DB ID:**	M514R1CS					
U-234	3.40E+00		4.8E-01	7.9E-01	7.24E-02	pCi/g	75%	3.13E+00	9.7E-02	109%	1/28/15 09:37 p	1.04	ALP430
							Rec Limits:	70	130	0.1		g	
U-238	3.45E+00		4.8E-01	8.0E-01	6.75E-02	pCi/g	75%	3.28E+00	1.0E-01	105%	1/28/15 09:37 p	1.04	ALP430
							Rec Limits:	70	130	0.1		g	
Batch: 5022035	NI63_LSC			**Work Order:**	M514P1AC		**Report DB ID:**	M514P1CS					
Ni-63	6.96E+01		2.6E+00	3.9E+00	1.84E+00	pCi/g	89%	1.14E+02	1.9E+00	61%	1/28/15 11:53 p	2.01	LSC4
							Rec Limits:	70	130	-0.4		g	

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

rptSTLRchLcs
V5.3.6.5 A2002

FORM II

LCS RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc

Matrix: SOIL

SDG: JP0897

Report No. : 64493

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDL	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 5022033	GAMMA_GS			**Work Order:**	M514H1AC		**Report DB ID:**	M514H1CS					
CS-137	1.05E+00		1.4E-01	1.4E-01	3.84E-02	pCi/g		9.94E-01	1.0E-02	105%	1/27/15 09:31 p	350.1	GER7$1
							Rec Limits:	70	130	0.1		g	
RA-226	9.76E-01		1.6E-01	1.6E-01	6.70E-02	pCi/g		1.14E+00	1.2E-02	86%	1/27/15 09:31 p	350.1	GER7$1
							Rec Limits:	70	130	-0.1		g	
RA-228	6.57E-01		1.8E-01	1.8E-01	1.08E-01	pCi/g		5.93E-01	6.1E-03	111%	1/27/15 09:31 p	350.1	GER7$1
							Rec Limits:	70	130	0.1		g	
U-238	1.04E+00		1.7E-01	1.7E-01	7.76E-02	pCi/g		1.20E+00	1.2E-02	87%	1/27/15 09:31 p	350.1	GER7$1
							Rec Limits:	70	130	-0.1		g	
Batch: 5022034	SRTOT_SEP_PRECIP_GPC			**Work Order:**	M514K1AC		**Report DB ID:**	M514K1CS					
STRONTIUM	4.27E+00		4.6E-01	1.1E+00	3.76E-01	pCi/g	89%	3.48E+00	2.5E-02	123%	1/27/15 09:46 p	2.02	GPC31D
							Rec Limits:	70	130	0.2		g	

No. of Results: 13 **Comments:**

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

rptSTLRchLcs
V5.3.6.5 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 29-Jan-15

Lab Name: TestAmerica Inc **SDG:** JP0897

Lot-Sample No.: J5A220430-1, J1V340 **Report No. :** 64493 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 5022041	**Work Order:** M512F1AN			**Report DB ID:** M512F1CW			**Orig Sa DB ID:** 9M512F10					
HEXCHROME	2.80E+01			0.0E+00	1.55E-01	mg/kg	N/A	88.11%	3.18E+01	1/26/15 02:47 p	2.5093	7196_CR6
	2.82E-01										g	

Number of Results: 1

Comments:

TestAmerica Inc
rptSTLRchMs
V5.3.6.5 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

1/29/2015 11:07:55 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5022037; RPUISO Pulso by ALP
SDG, Matrix: JP0897; 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?		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?			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?		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?			N/A ✓
4.4 Were spectra reviewed/meet contractual requirements?			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?			N/A ✓
5.6 Are worksheet entries complete and correct?	Yes ✓	No	N/A

6.0 Comments on any No response:

First Level [signature] **Date** 1/29/15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5022037

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g
See NCM #: 10-30042

Second Level Review: Rhonda Wyn Date: 1/29/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-30062**
NCM Initiated By: Lisa Antonson
Date Opened: 01/29/2015
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Pulso by ALP
Lot #'s (Sample #'s): J5A220000 (37), J5A220430 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 5022037,

Nonconformance: Tracer yield out of limits
Subcategory: Unknown

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	01/29/2015	Sample M5122 failed with no tracer recovery. It was reanalyzed in batch 5027050

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	01/29/2015	The sample was reanalyzed

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/29/2015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/29/2015 11:01:39 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5027050; RPUISO Pulso by ALP
SDG, Matrix: JP0897; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level [signature] **Date** 1/29/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5027050

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g
See NCM #: 10-30062

Second Level Review: Rhonda Wyan Date: 1/29/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-30062**
NCM Initiated By: Lisa Antonson
Date Opened: 01/29/2015
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Pulso by ALP
Lot #'s (Sample #'s): J5A220000 (37), J5A220430 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 5022037,

Nonconformance: Tracer yield out of limits
Subcategory: Unknown

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	01/29/2015	Sample M5122 failed with no tracer recovery. It was reanalyzed in batch 5027050

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	01/29/2015	The sample was reanalyzed

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/29/2015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/29/2015 8:51:51 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5022036; RUISO Ulso by ALP
SDG, Matrix: JP0897; 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:

First Level Lisa Autorson **Date** 1/29/15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5072036

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL= 1.0 pCi/g

Second Level Review: Rhonda Wyan Date: 1/29/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/29/2015 11:18:47 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5022038; RAMISO AmIso by ALP
SDG, Matrix: JP0897; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

5.0 Comments on any No response:

First Level Lisa Anderson **Date** 1/29/15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 5022038

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g
See NCM #: 10-30063

Second Level Review: Rhonda Wyn Date: 1/29/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-30063
NCM Initiated By: Lisa Antonson
Date Opened: 01/29/2015
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Gamma by GER
Lot #'s (Sample #'s): J5A260000 (41), J5A260413 (1,2),
QC Batches: 5026041,

Nonconformance: Tracer yield out of limits
Subcategory: Unknown

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	01/29/2015	Sample M5122 failed with no tracer recovery. The sample was reanalyzed in batch 5027052

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	01/29/2015	The sample was reanalyzed

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/29/2015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/29/2015 11:15:23 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5027052; RAMISO AmIso by ALP
SDG, Matrix: JP0897; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

5.6 Comments on any No response:

First Level [signature] **Date** 1/29/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5027052

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g
See NCM #: 10-300163

Second Level Review: Rhonda Wyan Date: 1/29/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-30063**
NCM Initiated By: Lisa Antonson
Date Opened: 01/29/2015
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Gamma by GER
Lot #'s (Sample #'s): J5A260000 (41), J5A260413 (1,2),
QC Batches: 5026041,

Nonconformance: Tracer yield out of limits
Subcategory: Unknown

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	01/29/2015	Sample M5122 failed with no tracer recovery. The sample was reanalyzed in batch 5027052

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	01/29/2015	The sample was reanalyzed

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note

Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/29/2015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

1/28/2015 8:39:12 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5022034; RSRTOT SrTot by GPC
SDG, Matrix: JP0897; 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:

First Level Lisa Anderson Date 1/28/15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5022084

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 Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 1.0 pCi/g

Second Level Review: Rhonda Wyan Date: 1/28/15

DR-001, Rev. 01, 10/30/2013

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/28/2015 10:03:25 AM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5022033; RGAMMA Gamma by GER
SDG, Matrix: JP0897; 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:

First Level Lisa Anderson **Date** 1/28/15

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5022-033

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL = 0.1 pCi/g

Second Level Review: [signature] Date: 1/28/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-30053
NCM Initiated By: Lisa Antonson
Date Opened: 01/28/2015
Date Closed:

Classification: **Anomaly**
Status: **PMREVIEW**
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J5A220000 (33), J5A220430 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 5022033,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	01/28/2015	Samples M512F, M512W, M5121, and M5124 do not meet CRDL for Eu-154 Samples M5122 and M5125 do not meet CRDL for Eu-155. The LCS does not meet CRDL for Eu-152.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	01/28/2015	None

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 1/28/2015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist

RADIOCHEMISTRY, First Level Review

1/29/2015 12:52:16 PM

Lot No., Due Date: J5A220430; 01/29/2015
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 5022035; RNI63 Ni-63 by LSC
SDG, Matrix: JP0897; SOIL

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

6.0 Comments on any No response:
NCM 10-30065

First Level [signature] Date 1/29/15

TestAmerica Richland
QAS_RADCALCv4.8.68.1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 5022035

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 Nonconformances (NCM) included and noted?	✓		
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response: CRDL: 30 pCi/g

Second Level Review: Rhonda W. Jones Date: 1/29/15

DR-001, Rev. 01, 10/30/2013

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: **10-30065**
NCM Initiated By: Tom Mcginnis
Date Opened: 01/29/2015
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Ni-63 by LSC
Lot #'s (Sample #'s): J5A220000 (35), J5A220430 (1,10,11,12,13,2,3,4,5,6,7,8,9),
QC Batches: 5022035,

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

Problem Description / Root Cause

Name	Date	Description
Tom Mcginnis	01/29/2015	The LCS recovery for batch 5022035 is below acceptance criteria. Additional recounts of the LCS confirmed the low recovery. The blank and duplicate agreement are within acceptance criteria. The sample results are less than one tenth the CRDL. There is no indication of low method bias as represented by successful tracer recoveries. Batch results are approved.

Corrective Action

Name	Date	Corrective Action
Tom Mcginnis	01/29/2015	The PM was notified of the batch deficiency. A reanalysis is available upon 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: 1/29/2015

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s):	5022041	Lab Sample Numbers or SDG:	JP0897

Method/Test/Parameter: Cr+6 ☐ RL-WC-008(Aqueous) ☐ RL-WC-003(Aqueous) ☒ RL-WC-004(Solid)

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 greater than 0.97?	✓			✓
3. Initial calibration verification (ICV) analyzed immediately after calibration and results within 10% of expected?	✓			✓
4. Initial calibration blank (ICB) analyzed immediately after ICV and concentrations of all parameters ≤ reporting limit?	✓			✓
B. Continuing Calibration 1. CCV analyzed at required frequency and all parameters within 10% of expected?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
C. Sample Analysis 1. Were any samples with concentrations above the linear range diluted and reanalyzed?			✓	✓
2. Were all sample holding times met?	✓			✓
D. QC Samples 1. All results for the preparation blank below limits?	✓			✓
2. LCS percent recovery within 85-115%	✓			✓
3. $PbCrO_4$ percent recovery within 75-125%?	✓			✓
4. Sample and Duplicate within 20% (aqueous) or 35% (solid) RPD?	✓			✓
5. MS or MS/MSD recoveries within 85-115% (aqueous) or 75-125% (solid)?	✓			✓
6. On MS failure, PDMS within 85-115%?			✓	✓
E. Other 1. Are all nonconformances included and noted?			✓	✓
2. Is the correct date and time of analysis shown?	✓			✓
3. Did the analyst sign and date the front page of the analytical run?	✓			✓
4. Correct methodology used?	✓			✓
5. Transcriptions checked?	✓			✓
6. Calculations checked at minimum frequency?	✓			✓
7. Units checked?	✓			✓

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

Analyst I. Salifu Date 1-26-15 2nd Review H. Rahavi Date 1/28/15

CG-231 Rev 2 10/14

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-464

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Staging pile area		**SAF No.** RC-075
Ice Chest No. WCH-08-032	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Local Delivery
Shipped To TestAmerica Richland	**Offsite Property No.** NA		**Bill of Lading/Air Bill No.** NA

Other Labs Shipped To
TestAmerica Denver

POSSIBLE SAMPLE HAZARDS/REMARKS
none

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	None	None	None							
Type of Container	G/P	G/P	G/P	G/P							
No. of Container(s)	1	1	1	1							
Volume	125mL	125mL	125mL	1000mL							
Sample Analysis	Chromium Hex - 7196	Americium-241; Isotopic Plutonium; Isotopic Uranium	Nickel-63; Strontium-89,90 – Total Sr	See item (2) in Special Instructions							

Sample No.	Matrix	Sample Date	Sample Time										
J1V340 MS12F	SOIL	01/21/15	1010	X	X	X	X						
J1V341 MS12Q	SOIL	01/21/15	1016	X	X	X	X						
J1V342 MS12R	SOIL	01/21/15	1023	X	X	X	X						
J1V343 MS12T	SOIL	01/21/15	1004	X	X	X	X						
J1V344 MS12V	SOIL	01/21/15	0957	X	X	X	X						

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1027 1-21-15	C. Martinez/C. Martinez	1027 01/21/15
C. Martinez/C. Martinez	01/21/15 1615	C. Bingham CMB	1-21-15 1615
C. Bingham CMB	1-21-15 1630	1060 Battelle, fridge #2A	1-21-15 1630
1060 Battelle, fridge #2A	1-22-15 0810	C. Bingham CMB	1-22-15 0810
C. Bingham CMB WCH	1-22-15 1340	J. Friesz, TARL	1/22/15 1340

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

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

JSA220430
Due 1-29-15

REVIEWED BY T. Edmundson via email DATE 1-22-15

SDG:

JP0897

J5A220430

WCH-EE-011

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-464

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7days		
Project Designation: 100-D/DR Field Remediation	Sampling Location: 100-D-85:2, Verification, Staging pile area		SAF No.: RC-075
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1662-03	COA: 01D8522000	Method of Shipment: Local Delivery
Shipped To: **TestAmerica Richland**	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

Other Labs Shipped To: TestAmerica Denver

POSSIBLE SAMPLE HAZARDS/REMARKS
none

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	None	None	None							
Type of Container	G/P	G/P	G/P	G/P							
No. of Container(s)	1	1	1	1							
Volume	125mL	125mL	125mL	1000mL							
Sample Analysis	Chromium Hex - 7196	Americium-241; Isotopic Plutonium; Isotopic Uranium	Nickel-63; Strontium-89,90 – Total Sr	See item (2) in Special Instructions							

Sample No.	Matrix	Sample Date	Sample Time										
J1V345 m512W	SOIL	01/21/15	0952	X	X	X	X						
J1V346 m512X	SOIL	01/21/15	0945	X	X	X	X						
J1V347 m5120	SOIL	01/21/15	0939	X	X	X	X						
J1V348 m5121	SOIL	01/21/15	0932	X	X	X	X						
J1V349 m5122	SOIL	01/21/15	0913	X	X	X	X						

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1027 1-21-15	C. Martinez/C. Martinez	01/21/15 1027
C. Martinez/C. Martinez	01/21/15 1615	C. Bingham	1-21-15 1615
C. Bingham	1-21-15 1630	1060 Battelle, fridge #2A	1-21-15 1630
1060 Battelle, fridge #2A	1-21-15 0810	C. Bingham	1-22-15 0810
C. Bingham WCH	1-22-15 1340	J. Friesz, TARL	1/22/15 1340

FINAL SAMPLE DISPOSITION — Disposal Method: | Disposed By: | Date/Time:

SPECIAL INSTRUCTIONS

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

JSA220430
JP0897
Due 1-29-15

RECEIVED BY J. Edmundson Vicaud DATE 1-22-15

JP0897

WCH-EE-011

Washington Closure Hanford — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-464

Collector: STOWE, QG	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8B	Data Turnaround: 7days		
Project Designation: 100-D/DR Field Remediation	Sampling Location: 100-D-85:2, Verification, Staging pile area		SAF No.: RC-075
Ice Chest No.: WCH-08-032	Field Logbook No.: EL-1662-03	COA: 01D8522000	Method of Shipment: Local Delivery
Shipped To: TestAmerica Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

Other Labs Shipped To: TestAmerica Denver

POSSIBLE SAMPLE HAZARDS/REMARKS
none

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	None	None	None								
Type of Container	G/P	G/P	G/P	G/P								
No. of Container(s)	1	1	1	1								
Volume	125mL	125mL	125mL	1000mL								
Sample Analysis	Chromium Hex - 7196	Americium-241; Isotopic Plutonium; Isotopic Uranium	Nickel-63; Strontium-89,90 – Total Sr	See item (2) in Special Instructions								

Sample No.	Matrix	Sample Date	Sample Time										
J1V350 m5123	SOIL	01/21/15	0919	X	X	X	X						
J1V351 m5124	SOIL	01/21/15	0926	X	X	X	X						
J1V352 m5125	SOIL	01/21/15	0913	X	X	X	X						
~~J1V353 01/21/15~~	~~SOIL~~												

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1027 1-21-15	C. Martinez/C. Martinez	1027 01/21/15
C. Martinez/C. Martinez	1615 01/21/15	C. Bingham	1-21-15 1615
C. Bingham	1-21-15 1630	1060 Battelle, fridge #2A	1630 1-21-15
1060 Battelle, fridge #2A	0810 1-22-15	C. Bingham	1-22-15 0810
C. Bingham WCH	1-22-15 1340	J. Friesz, TARL	1/22/15 1340

FINAL SAMPLE DISPOSITION — Disposal Method: | Disposed By: | Date/Time:

SPECIAL INSTRUCTIONS

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

J5A220430
Due 1-29-15

RECEIVED BY J. Edmundson Via email DATE 1-22-15

JP0897

J5A220430

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sample Check-in List

Date/Time Received: 1/22/15 1340 Container GM Screen Result: (Airlock) 40 cpm Initials [ ]
Sample GM Screen Result (Sample Receiving) 20 cpm Initials [ ]

Client: WCH SDG #: JR0897 SAF #: RC-075 NA [ ]

Lot Number: JSA220430

Chain of Custody # RC-075-464

Shipping Container ID or Air Bill Number: hand deliv. NA [ ]

Samples received inside shipping container/cooler/box Yes [ ] 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 [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [ ]
3. Cooler temperature: 7.3 °C ON ICE NA [ ]
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [ ]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 13
7. Containers received: 13x4p; 39x 125mlp
8. Sample holding times exceeded? NA [ ] Yes [ ] No [ ]
9. Samples have: ____tape ____hazard labels ____custody seals ____appropriate sample labels
10. Matrix: ____A (FLT, Wipe, Solid, Soil) ____I (Water) ____S (Air, Niosh 7400) ____T (Biological, Ni-63)
11. Samples:
    ____are in good condition ____are leaking ____are broken
    ____have air bubbles (Only for samples requiring no head space) ____Other ____
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [ ]
    (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO_3 added and pH after addition on table)
13. Were any anomalies identified in sample receipt? Yes [ ] No [ ]
14. Description of anomalies (include sample numbers): NA [ ]
15. Sample Location, Sample Collector Listed on COC? * Yes [ ] No [ ]
    *For documentation only. No corrective action needed.
16. Additional Information: NA

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

Sample Check-in List completed by Sample Custodian:
Signature: _____ Date: 1/22/15

Client Notification needed? Yes [ ] No [ ] Date: ____
By: ____
Person contacted: ____

[ ] No action necessary, process as is

Project Manager _____ Date 1/22/15

LS-023 Rev. 17, 05/13

Page 1 of 1

1-22-15

1/23/2015 4:34:20 PM

Sample Preparation/Analysis

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

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

PRIORITY

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022037 SOIL pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: 5022038, 6ISX 5022038, 6ISX

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AJ J5A220430-1-SAMP 01/21/2015 10:10			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	PATB5558 01/21/15,pd 04/04/05,r #Containers: 4				100 Scr:	401 Alpha:	1339	1/27/15 YS Beta:	
2 M512F-1-AL-X J5A220430-1-DUP 01/21/2015 10:10			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	PATB5559 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	403 Alpha:		Beta:	
3 M512Q-1-AG J5A220430-2-SAMP 01/21/2015 10:16			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	PATB5560 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	404 Alpha:		Beta:	
4 M512R-1-AG J5A220430-3-SAMP 01/21/2015 10:23			0.99g,in AmtRec: 1XLP;3X125MLP	0.99g	PATB5561 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	405 Alpha:		Beta:	
5 M512T-1-AG J5A220430-4-SAMP 01/21/2015 10:04			1.00g,in AmtRec: 1XLP;3X125MLP	1.00g	PATB5562 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	406 Alpha:		Beta:	
6 M512V-1-AG J5A220430-5-SAMP 01/21/2015 09:57			1.04g,in AmtRec: 1XLP;3X125MLP	1.04g	PATB5563 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	407 Alpha:		Beta:	
7 M512W-1-AG J5A220430-6-SAMP 01/21/2015 09:52			0.99g,in AmtRec: 1XLP;3X125MLP	0.99g	PATB5564 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	408 Alpha:	—	— Beta:	

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.69

1/23/2015 4:34:22 PM

Sample Preparation/Analysis

Balance Id:1120421763,1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022037 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5022038, 6ISX

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M512X-1-AG J5A220430-7-SAMP 01/21/2015 09:45			1.03g,in	1.03g	PATB5545 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	409	1339	1/27/15 JM	Scr: Alpha: Beta:
9 M5120-1-AG J5A220430-8-SAMP 01/21/2015 09:39			1.03g,in	1.03g	PATB5546 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	410			Scr: Alpha: Beta:
10 M5121-1-AG J5A220430-9-SAMP 01/21/2015 09:32			1.04g,in	1.04g	PATB5547 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	411			Scr: Alpha: Beta:
11 M5122-1-AG J5A220430-10-SAMP 01/21/2015 09:13			1.00g,in	1.00g	PATB5548 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	413			Scr: Alpha: Beta:
12 M5123-1-AG J5A220430-11-SAMP 01/21/2015 09:19			1.02g,in	1.02g	PATB5549 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	414			Scr: Alpha: Beta:
13 M5124-1-AG J5A220430-12-SAMP 01/21/2015 09:26			1.03g,in	1.03g	PATB5550 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	420			Scr: Alpha: Beta:
14 M5125-1-AG J5A220430-13-SAMP 01/21/2015 09:13			1.01g,in	1.01g	PATB5551 01/21/15,pd 04/04/05,r AmtRec: 1XLP;3X125MLP				#Containers: 4	421			Scr: Alpha: Beta:

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis WO Cnt: 14
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.69

1/23/2015 4:34:23 PM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120421763,1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022037 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M514T-1-AA-B			1.03g,in	1.03g	PATB5552					422	1339	1/27/15 gm	
J5A220000-37-BLK					01/21/15,pd 04/04/05,r								
01/23/2015 14:29 pd			AmtRec:	#Containers: 1					Scr:	Alpha:			Beta:
16 M514T-1-AC-C			1.02g,in	1.02g	PASC1067					423	—		
J5A220000-37-LCS					01/21/15,pd 04/04/05,r								
01/23/2015 14:30 pd			AmtRec:	#Containers: 1					Scr:	Alpha:			Beta:

1/23/2015 4:34:24 PM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120421763,1120373922,,

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022037 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

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

Comments:

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

M512F1AJ-SAMP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						

M514T1AA-BLK:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						

M514T1AC-LCS:

PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M512F1AJ-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M514T1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M514T1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/29/2015 11:06:36 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2014, 2/3/2015, Batch: '5022037', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5022037							
AC			**Rev1C**	**GarciaA**	1/23/2015 4:40:09 PM		
SC				Wagarr	IsBatched	1/23/2015 8:18:38 AM	ICOC_RADCALC v4.9.0
SC				GarciaA	Prep1C	1/23/2015 4:40:09 PM	RL-PRP-003 REVISION 5
SC				RichardsonB	Sep1C	1/27/2015 5:24:59 AM	RL-ALP-016 REV3
SC				BolesT	Sep1C	1/27/2015 8:12:42 AM	RL-ALP-001 REVISION 5
SC				BullJ	InCnt1	1/27/2015 11:47:29 AM	RL-CI-008 REVISION 4
SC				BullJ	CalcC	1/27/2015 2:26:31 PM	RL-CI-008 REVISION 4
SC				antonsonl	Rev1C	1/29/2015 11:06:15 AM	RL-DR-001 Rev 5
AC				**RichardsonB**	1/27/2015 5:24:59		
AC				**BolesT**	1/27/2015 8:12:42		
AC				**BullJ**	1/27/2015 11:47:29		
AC				**BullJ**	1/27/2015 2:26:31 PM		
AC				**antonsonl**	1/29/2015 11:06:15		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions

1/28/2015 12:57:32 PM

Sample Preparation/Analysis

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

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5027050 SOIL pCi/g

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5022038, 6ISX 5027052, 6ISX

Prep Tech: BolesT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **M5122-3-AG** J5A220430-10-SAMP 01/21/2015 09:13			1.00g,in AmtRec: 1XLP;3X125MLP	1.00g	PATB5553 01/21/15,pd 04/04/05,r #Containers: 4				100 Scr:	404 Alpha:	1010 Beta:	1/29/15 pd	
2 **M5240-1-AA-B** J5A270000-50-BLK 01/27/2015 16:11 pd			1.04g,in AmtRec:	1.04g	PATB5554 01/21/15,pd 04/04/05,r #Containers: 1				Scr:	403 Alpha:	Beta:		
3 **M5240-1-AC-C** J5A270000-50-LCS 01/27/2015 16:11 pd			1.04g,in AmtRec:	1.04g	~~PATB5554~~ PASC1065 01/21/15,pd 1/29/15 pd 04/04/05,r #Containers: 1				Scr:	404 Alpha:	Beta:		

1/28/2015 12:57:33 PM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SO Plutonium-238,239/40 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5027050 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: BolesT

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

Comments:

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

M51223AG-SAMP Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						

M52401AA-BLK Constituent List:

PU-238	RDL:1	pCi/g	LCL:	UCL:	RPD:	PU-239	RDL:1	pCi/g	LCL:	UCL:	RPD:
Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35						

M52401AC-LCS:

PU-239	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	Pu-242	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M51223AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M52401AA-BLK Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M52401AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/29/2015 11:00:41 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2014, 2/3/2015, Batch: '5027050', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5027050							
AC			**Rev1C**	**BolesT**	1/28/2015 3:26:18 PM		
SC				NeyensAR	IsBatched	1/28/2015 8:17:49 AM	ICOC_RADCALC v4.9.0
SC				BolesT	Sep1C	1/28/2015 3:26:18 PM	RL-ALP-001 REVISION 5
SC				BolesT	Sep1C	1/28/2015 3:26:48 PM	RL-ALP-001 REVISION 5
SC				RichardsonB	Sep1C	1/29/2015 5:35:57 AM	RL-ALP-016 REV3
SC				BullJ	InCnt1	1/29/2015 8:23:41 AM	RL-CI-008 REVISION 4
SC				BullJ	CalcC	1/29/2015 10:39:31 AM	RL-CI-008 REVISION 4
SC				antonsonl	Rev1C	1/29/2015 11:00:23 AM	RL-DR-001 Rev 5
AC				**BolesT**	1/28/2015 3:26:48 PM		
AC				**RichardsonB**	1/29/2015 5:35:57		
AC				**BullJ**	1/29/2015 8:23:41		
AC				**BullJ**	1/29/2015 10:39:31		
AC				**antonsonl**	1/29/2015 11:00:23		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions

1/26/2015 4:18:54 PM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

7S Uiso Prp PRP003/PRP005, Sep ALP009(ALP015)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022036 SOIL pCi/g

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AC J5A220430-1-SAMP 01/21/2015 10:10			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	UITC32423 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	427 ~~409~~ 1/28/15 OK	Alpha:	2225	Beta: 1/28/15 OK
2 M512Q-1-AC J5A220430-2-SAMP 01/21/2015 10:16			1.00g,in AmtRec: 1XLP;3X125MLP	1.00g	UITC32424 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	420	Alpha:	2031	Beta: 1/28/15 OK
3 M512Q-1-AJ-X J5A220430-2-DUP 01/21/2015 10:16			1.01g,in AmtRec: 1XLP;3X125MLP	1.01g	UITC32425 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	421	Alpha:		Beta:
4 M512R-1-AC J5A220430-3-SAMP 01/21/2015 10:23			1.00g,in AmtRec: 1XLP;3X125MLP	1.00g	UITC32426 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	422	Alpha:		Beta:
5 M512T-1-AC J5A220430-4-SAMP 01/21/2015 10:04			1.04g,in AmtRec: 1XLP;3X125MLP	1.04g	UITC32427 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	423	Alpha:		Beta:
6 M512V-1-AC J5A220430-5-SAMP 01/21/2015 09:57			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	UITC32428 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	427	Alpha:		Beta:
7 M512W-1-AC J5A220430-6-SAMP 01/21/2015 09:52			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	UITC32429 12/17/14,pd 06/15/01,r #Containers: 4				Scr:	428	Alpha:		Beta:

TestAmerica Richland Wa.

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

ISV - Insufficient Volume for Analysis

WO Cnt: 7
Prep_SamplePrep v4.8.69

1/26/2015 4:18:56 PM

Sample Preparation/Analysis

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

7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP015)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #:

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022036 SOIL pCi/g PM, Quote: RW2, 27038
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M512X-1-AC J5A220430-7-SAMP 01/21/2015 09:45			1.01g,in AmtRec: 1XLP;3X125MLP	1.01g	UITC32430 12/17/14,pd 06/15/01,r #Containers: 4					Scr: 429	Alpha: 2031		Beta: 1/28/1500
9 M5120-1-AC J5A220430-8-SAMP 01/21/2015 09:39			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	UITC32431 12/18/14,pd 06/15/01,r #Containers: 4					Scr: 430	Alpha:		Beta: ANAL
10 M5121-1-AC J5A220430-9-SAMP 01/21/2015 09:32			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	UITC32432 12/18/14,pd 06/15/01,r #Containers: 4					Scr: 431	Alpha:		Beta:
11 M5122-1-AC J5A220430-10-SAMP 01/21/2015 09:13			1.01g,in AmtRec: 1XLP;3X125MLP	1.01g	UITC32433 12/18/14,pd 06/15/01,r #Containers: 4					Scr: 433	Alpha:		Beta:
12 M5123-1-AC J5A220430-11-SAMP 01/21/2015 09:19			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	UITC32434 12/18/14,pd 06/15/01,r #Containers: 4					Scr: 434	Alpha:		Beta:
13 M5124-1-AC J5A220430-12-SAMP 01/21/2015 09:26			1.04g,in AmtRec: 1XLP;3X125MLP	1.04g	UITC32435 12/18/14,pd 06/15/01,r #Containers: 4					Scr: 435	Alpha:		Beta:
14 M5125-1-AC J5A220430-13-SAMP 01/21/2015 09:13			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	UITC32436 12/18/14,pd 06/15/01,r #Containers: 4					Scr: 428	Alpha: 2227		Beta:

1/26/2015 4:18:57 PM

Sample Preparation/Analysis

7S Uiso Prp PRP003/PRP005, Sep ALP009(ALP015)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022036 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 **M514R-1-AA-B**			1.04g,in	1.04g	UITC32437								
J5A220000-36-BLK					12/18/14,pd 06/15/01,r					429	2227	1/28/15	
01/26/2015 10:59 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
16 **M514R-1-AC-C**			1.04g,in	1.04g	UISH1920								
J5A220000-36-LCS					09/12/14,pd 06/15/01,r					430	↓	↓	
01/26/2015 11:00 pd			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	

1/26/2015 4:18:58 PM

Sample Preparation/Analysis

7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP015)
SR Uranium-234,235,238 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022036 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

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

Comments:

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

M512F1AC-SAMP Constituent List:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:	U-238	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:

M514R1AA-BLK:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:	U-238	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:

M514R1AC-LCS:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	Uranium	RDL:	pCi/g	LCL:70	UCL:130	RPD:35

M512F1AC-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514R1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514R1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/29/2015 8:51:05 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2014, 2/3/2015, Batch: '5022036', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5022036						
AC		**Rev1C**	**GarciaA**	1/27/2015 10:04:58		
SC			Wagarr	IsBatched	1/23/2015 8:18:38 AM	ICOC_RADCALC v4.9.0
SC			GarciaA	Prep1C	1/27/2015 10:04:58 AM	RL-PRP-003 REVISION 5
SC			BolesT	Sep1C	1/27/2015 5:58:20 PM	RL-ALP-004 REVISION 6
SC			BolesT	Sep2C	1/28/2015 3:37:52 PM	RL-ALP-015 REVISION 7
SC			DawkinsO	InCnt1	1/28/2015 6:41:50 PM	RL-CI-008 REVISION 4
SC			DawkinsO	CalcC	1/29/2015 12:00:20 AM	RL-CI-008 REVISION 4
SC			antonsonl	Rev1C	1/29/2015 8:50:44 AM	RL-DR-001 Rev 5
AC			**BolesT**	1/27/2015 5:58:20 PM		
AC			**BolesT**	1/28/2015 3:37:52 PM		
AC			**DawkinsO**	1/28/2015 6:41:50 PM		
AC			**DawkinsO**	1/29/2015 12:00:20		
AC			**antonsonl**	1/29/2015 8:50:44		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions

1/23/2015 4:34:49 PM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022038 SOIL pCi/g

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5022037, 6ISO 5022037, 6ISO

Prep Tech: GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AK J5A220430-1-SAMP 01/21/2015 10:10			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	PATB5558 01/21/15,pd 04/04/05,r #Containers: 4				100 Scr:	401 Alpha:	1141	1/28/15 gm Beta:	
2 M512F-1-AM-X J5A220430-1-DUP 01/21/2015 10:10			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	PATB5559 01/21/15,pd 04/04/05,r #Containers: 4				403 Scr:	Alpha:		Beta:	
3 M512Q-1-AH J5A220430-2-SAMP 01/21/2015 10:16			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	PATB5560 01/21/15,pd 04/04/05,r #Containers: 4				404 Scr:	Alpha:		Beta:	
4 M512R-1-AH J5A220430-3-SAMP 01/21/2015 10:23			0.99g,in AmtRec: 1XLP;3X125MLP	0.99g	PATB5561 01/21/15,pd 04/04/05,r #Containers: 4				405 Scr:	Alpha:		Beta:	
5 M512T-1-AH J5A220430-4-SAMP 01/21/2015 10:04			1.00g,in AmtRec: 1XLP;3X125MLP	1.00g	PATB5562 01/21/15,pd 04/04/05,r #Containers: 4				406 Scr:	Alpha:		Beta:	
6 M512V-1-AH J5A220430-5-SAMP 01/21/2015 09:57			1.04g,in AmtRec: 1XLP;3X125MLP	1.04g	PATB5563 01/21/15,pd 04/04/05,r #Containers: 4				407 Scr:	Alpha:		Beta:	
7 M512W-1-AH J5A220430-6-SAMP 01/21/2015 09:52			0.99g,in AmtRec: 1XLP;3X125MLP	0.99g	PATB5564 01/21/15,pd 04/04/05,r #Containers: 4				408 Scr:	Alpha:		Beta:	

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7 Prep_SamplePrep v4.8.69

1/23/2015 4:34:50 PM

Sample Preparation/Analysis

Balance Id:1120421763,1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022038 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5022037, 6ISO

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M512X-1-AH J5A220430-7-SAMP 01/21/2015 09:45			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	PATB5545 01/21/15,pd 04/04/05,r #Containers: 4				100 Scr:	409 Alpha:	1141	1/28/15 JM Beta:	
9 M5120-1-AH J5A220430-8-SAMP 01/21/2015 09:39			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	PATB5546 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	410 Alpha:		Beta:	
10 M5121-1-AH J5A220430-9-SAMP 01/21/2015 09:32			1.04g,in AmtRec: 1XLP;3X125MLP	1.04g	PATB5547 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	411 Alpha:		Beta:	
11 M5122-1-AH J5A220430-10-SAMP 01/21/2015 09:13			1.00g,in AmtRec: 1XLP;3X125MLP	1.00g	PATB5548 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	413 Alpha:		Beta:	
12 M5123-1-AH J5A220430-11-SAMP 01/21/2015 09:19			1.02g,in AmtRec: 1XLP;3X125MLP	1.02g	PATB5549 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	414 Alpha:		Beta:	
13 M5124-1-AH J5A220430-12-SAMP 01/21/2015 09:26			1.03g,in AmtRec: 1XLP;3X125MLP	1.03g	PATB5550 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	420 Alpha:		Beta:	
14 M5125-1-AH J5A220430-13-SAMP 01/21/2015 09:13			1.01g,in AmtRec: 1XLP;3X125MLP	1.01g	PATB5551 01/21/15,pd 04/04/05,r #Containers: 4				Scr:	421 Alpha:		Beta:	

1/23/2015 4:34:52 PM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120421763,1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022038 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M5143-1-AA-B			1.03g,in	1.03g	PATB5552					422	1141	112 8/15 jm	
J5A220000-38-BLK					01/21/15,pd 04/04/05,r								
01/23/2015 14:29 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:
16 M5143-1-AC-C			1.02g,in	1.02g	PASC1067					423			
J5A220000-38-LCS					01/21/15,pd 04/04/05,r								
01/23/2015 14:30 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:

1/23/2015 4:34:52 PM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120421763,1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022038 **pCi/g**
SEQ Batch, Test: None

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

Comments:

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

M512F1AK-SAMP Constituent List:

Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M51431AA-BLK:

Am-241	RDL:1	pCi/g	LCL:	UCL:	RPD:	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M51431AC-LCS:

Am-241	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35	AM-243	RDL:	pCi/g	LCL:20	UCL:105	RPD:35

M512F1AK-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51431AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M51431AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/29/2015 11:17:57 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2014, 2/3/2015, Batch: '5022038', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5022038						
AC		Rev1C	**RichardsonB**	1/27/2015 5:24:45		
SC			Wagarr	IsBatched	1/23/2015 8:18:38 AM	ICOC_RADCALC v4.9.0
SC			RichardsonB	Sep1C	1/27/2015 5:24:45 AM	RL-ALP-016 REV3
SC			BolesT	Sep1C	1/27/2015 10:29:34 AM	RL-ALP-001 REVISION 5
SC			BullJ	CalcC	1/28/2015 1:05:44 PM	RL-CI-008 REVISION 4
SC			antonsonl	Rev1C	1/29/2015 11:17:07 AM	RL-DR-001 Rev 5
AC			**BolesT**	1/27/2015 10:29:34		
AC			**BullJ**	1/28/2015 1:05:44 PM		
AC			**antonsonl**	1/29/2015 11:17:07		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 4

ICOCFractions

1/28/2015 12:57:25 PM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5027052 SOIL pCi/g **PM, Quote: RW2, 27038**

Sep2 DT/Tm Tech:

SEQ Batch, Test: 5022037, 6ISO 5022037, 6ISO 5027050, 6ISO , 6ISO

Prep Tech: BolesT

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 **M5122-2-AH**			1.00g,in	1.00g	PATB5553					405	1011	1/29/15 JM	
J5A220430-10-SAMP					01/21/15,pd 04/04/05,r	100							
01/21/2015 09:13			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
2 **M526W-1-AA-B**			1.18g,in	1.18g	~~PASC1065~~ PATB5554					406			
J5A270000-52-BLK					12/16/14,pd 01/01/10,r								
01/27/2015 16:15 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:
3 **M526W-1-AC-C**			1.18g,in	1.18g	PASC1065					407			
J5A270000-52-LCS					12/16/14,pd 01/01/10,r								
01/27/2015 16:15 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:

1/28/2015 12:57:26 PM

Sample Preparation/Analysis

6I PuAm Prp PRP003/PRP005, Sep
SX Americium-241 by Alpha Spec
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,BolesT

AnalyDueDate: 01/29/2015

Batch: 5027052 **pCi/g**
SEQ Batch, Test: None

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

Comments:

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

M51222AH-SAMP Constituent List:
Am-241 RDL:1 pCi/g LCL:70 UCL:130 RPD:35 AM-243 RDL: pCi/g LCL:20 UCL:105 RPD:35

M526W1AA-BLK Constituent List:
Am-241 RDL:1 pCi/g LCL: UCL: RPD: AM-243 RDL: pCi/g LCL:20 UCL:105 RPD:35

M526W1AC-LCS:
Am-241 RDL:1 pCi/g LCL:70 UCL:130 RPD:35 AM-243 RDL: pCi/g LCL:20 UCL:105 RPD:35

M51222AH-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M526W1AA-BLK Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M526W1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/29/2015 11:12:52 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2014, 2/3/2015, Batch: '5027052', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5027052						
AC		**Rev1C**	**BolesT**	1/28/2015 3:27:50 PM		
SC			bolestr	IsBatched	1/27/2015 6:36:44 PM	ICOC_RADCALC v4.9.0
SC			BolesT	Sep1C	1/28/2015 3:27:50 PM	RL-ALP-001 REVISION 5
SC			RichardsonB	Sep1C	1/29/2015 5:34:54 AM	RL-ALP-016 REV3
SC			BullJ	InCnt1	1/29/2015 8:23:46 AM	RL-CI-008 REVISION 4
SC			BullJ	CalcC	1/29/2015 10:44:26 AM	RL-CI-008 REVISION 4
SC			antonsonl	Rev1C	1/29/2015 11:12:47 AM	RL-DR-001 Rev 5
AC			**RichardsonB**	1/29/2015 5:34:54		
AC			**BullJ**	1/29/2015 8:23:46		
AC			**BullJ**	1/29/2015 10:44:26		
AC			**antonsonl**	1/29/2015 11:12:47		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 5

ICOCFractions

1/29/2015 11:12:51 AM

Rpt DB Transfer log (Batch Results)

SDG or Batch / Isotope	Rpt Db Id / Method	RTst	Qc	LotSample / Analysis Date	Client Id / Result	Matrix / Cnt Uncert	Received Date / Tot Uncert	Sample Date / MDA	Units	Expected	Yield	Volumes
JP0897	**9M512220**			**J5A22043010**	J1V349	SOIL	1/22/2015 1:40:00	1/21/2015 9:13:00 AM				
Am-241	6ISX	1		1/29/2015 9:21:00 AM	**4.1232E-03**	1.494E-02	1.494E-02	1.023E-01	pCi/g		1.079	1.0E+0
JP0897	**M526W1AB**			**J5A27000052**	INTRA-LAB BLANK	SOIL	1/22/2015 1:40:00	1/21/2015 9:13:00 AM				
Am-241	6ISX	0	B	1/29/2015 9:21:12 AM	**4.1965E-03**	1.329E-02	1.33E-02	8.963E-02	pCi/g		0.972	1.18E+0
JP0897	**M526W1CS**			**J5A27000052**	INTRA-LAB CHECK	SOIL	1/22/2015 1:40:00	1/21/2015 9:13:00 AM				
Am-241	6ISX	0	S	1/29/2015 9:21:24 AM	**4.5661E+00**	2.425E-01	4.693E-01	9.067E-02	pCi/g	4.1905E+00	1.063	1.18E+0

5027052, **Samples Inserted | Updated | NotUpdated => 3 | 0 | 0,
**Results Inserted | ReTestInserted | Updated | NotInserted => 3 | 0 | 0 | 0.
**Diff RptDb | Qtims => *wo:M526W1AA=> , mat:SOIL | Solid *wo:M526W1AC=> , mat:SOIL | Solid.

1/27/2015 3:22:09 PM

Sample Preparation/Analysis

Balance Id:1120373922,B425712682

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

CH Sr-Total Prp PRP003, Sep GPC ~~0034~~ 010 TB 1/27/15
TH Total Strontium by GPC
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech: 01/27/2015 12:30,BolesT

Batch: 5022034 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 6ISO, 5022033 AXTA, 5022034 CHTH, 5022035 AFS4, 5022036 7SSR, 5022037 6ISO, 5022038 6ISX, 5022041 DWEA, 5027050 6ISO,

Prep Tech: GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AD J5A220430-1-SAMP 01/21/2015 10:10			2.03g,in	2.03g	SRTC3723 01/12/15			10.60mg		32B	1924	1/27/15 ON	
			AmtRec: 1XLP;3X125MLP		#Containers: 4		01/27/2015 12:30,s1		Scr:	Alpha:			Beta:
2 M512Q-1-AD J5A220430-2-SAMP 01/21/2015 10:16			2.01g,in	2.01g	SRTC3724 01/12/15			10.70mg		31C			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:			Beta:
3 M512R-1-AD J5A220430-3-SAMP 01/21/2015 10:23			2.02g,in	2.02g	SRTC3725 01/12/15			11.20mg		31D	2		
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:			Beta:
4 M512T-1-AD J5A220430-4-SAMP 01/21/2015 10:04			2.00g,in	2.00g	SRTC3726 01/12/15			10.60mg		31D	2022		
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:			Beta:
5 M512V-1-AD J5A220430-5-SAMP 01/21/2015 09:57			2.01g,in	2.01g	SRTC3727 01/12/15			10.70mg		31C			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:			Beta:
6 M512V-1-AJ-X J5A220430-5-DUP 01/21/2015 09:57			2.04g,in	2.04g	SRTC3728 01/12/15			11.70mg		31B			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:			Beta:
7 M512W-1-AD J5A220430-6-SAMP 01/21/2015 09:52			2.03g,in	2.03g	SRTC3729 01/12/15			11.10mg		32A	2117		
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:			Beta:

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Prep_SamplePrep v4.8.69

1/27/2015 3:22:10 PM

Sample Preparation/Analysis

Balance Id:1120373922,B425712682

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

CH Sr-Total Prp PRP003, Sep GPC ~~003~~ DTB 1/27/15
TH Total Strontium by GPC
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Batch: 5022034 SOIL pCi/g PM, Quote: RW2, 27038

SEQ Batch, Test: None

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M512X-1-AD J5A220430-7-SAMP 01/21/2015 09:45			2.00g,in	2.00g	SRTC3730 01/12/15			10.70mg		32B	2117	1/27/15 DD	
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	
9 M5120-1-AD J5A220430-8-SAMP 01/21/2015 09:39			1.99g,in	1.99g	SRTC3731 01/12/15			10.60mg		32C			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	
10 M5121-1-AD J5A220430-9-SAMP 01/21/2015 09:32			2.00g,in	2.00g	SRTC3732 01/12/15			11.90mg		32D			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	
11 M5122-1-AD J5A220430-10-SAMP 01/21/2015 09:13			2.01g,in	2.01g	SRTC3733 01/12/15			10.60mg		31B			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	
12 M5123-1-AD J5A220430-11-SAMP 01/21/2015 09:19			2.01g,in	2.01g	SRTC3734 01/12/15			9.00mg		31C			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	
13 M5124-1-AD J5A220430-12-SAMP 01/21/2015 09:26			2.00g,in	2.00g	SRTC3735 01/12/15			10.20mg		31D			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	
14 M5125-1-AD J5A220430-13-SAMP 01/21/2015 09:13			2.04g,in	2.04g	SRTC3736 01/12/15			10.70mg		31B	2211		
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:	Alpha:		Beta:	

1/27/2015 3:22:12 PM

Sample Preparation/Analysis

CH Sr-Total Prp PRP003, Sep GPC~~003~~ 010 TB 1/27/15
TH Total Strontium by GPC
5I CLIENT: HANFORD

Balance Id:1120373922,B425712682
Pipet #: _____
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022034 pCi/g
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M514K-1-AA-B J5A220000-34-BLK 01/26/2015 13:07 pd			2.03g,in AmtRec:	2.03g #Containers: 1	SRTC3737 01/12/15			10.90mg	Scr:	1/27/1500 ~~32C~~ 31C Alpha:	22 11	1/27/1500 Beta:	
16 M514K-1-AC-C J5A220000-34-LCS 01/26/2015 13:07 pd			2.02g,in AmtRec:	2.02g #Containers: 1	STSF0677 01/12/15			10.80mg	Scr:	31D ~~32C~~ 1/27/1500 Alpha:	↓	↓ Beta:	

TestAmerica Laboratories, Inc.
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1/27/2015 3:22:12 PM

Sample Preparation/Analysis

CH Sr-Total Prp PRP003, Sep GPC~~003~~ TB 1/27/15
TH Total Strontium by GPC
5I CLIENT: HANFORD

Balance Id:1120373922,B425712682
Pipet #:
Sep1 DT/Tm Tech:
Sep2 DT/Tm Tech:
Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022034 pCi/g
SEQ Batch, Test: None

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

Comments: M512Q-SAMP CommentsS-14-00387,P-14-01004,P-14-00751,P-14-00980,,

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

M512F1AD-SAMP Constituent List:
  Sr-90       RDL:1          pCi/g     LCL:70      UCL:130     RPD:35
M514K1AA-BLK:
  Sr-90       RDL:1          pCi/g     LCL:        UCL:        RPD:
M514K1AC-LCS:
  Sr-90       RDL:1          pCi/g     LCL:70      UCL:130     RPD:35

M512F1AD-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M514K1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
M514K1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```

1/28/2015 8:38:07 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/28/2014, 2/2/2015, Batch: '5022034', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5022034						
AC		Rev1C	**GarciaA**	1/27/2015 10:05:29		
SC			Wagarr	IsBatched	1/23/2015 8:18:38 AM	ICOC_RADCALC v4.9.0
SC			GarciaA	Prep1C	1/27/2015 10:05:29 AM	RL-PRP-003 REVISION 5
SC			NeyensA	Prep1C	1/27/2015 2:11:25 PM	RL-GPC-010 REVISION 4
SC			DawkinsO	InCnt1	1/27/2015 3:57:40 PM	RL-CI-006 REVISION 5
SC			DawkinsO	CalcC	1/28/2015 12:08:13 AM	RL-CI-006 REVISION 5
SC			antonsonl	Rev1C	1/28/2015 8:37:52 AM	RL-DR-001 Rev 5
AC			**NeyensA**	1/27/2015 2:11:25 PM		
AC			**DawkinsO**	1/27/2015 3:57:40 PM		
AC			**DawkinsO**	1/28/2015 12:08:13		
AC			**antonsonl**	1/28/2015 8:37:52		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions

1/26/2015 11:30:29 AM

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

PRIORITY

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022033 **SOIL** **pCi/g** **PM, Quote: RW2, 27038**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5022033 AXTA, 5022034 CHTH, 5022035 AFS4, 5022036 7SSR, 5022037 6ISO, 5022038 6ISX, 5022041 DWEA,

Prep Tech: GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AF J5A220430-1-SAMP 01/21/2015 10:10			391.30g,in 1842.50g,fi AmtRec: 1XLP;3X125MLP	391.30g #Containers: 4					Scr:	G7	1010	1/27/15 JM	Alpha: Beta:
2 M512Q-1-AF J5A220430-2-SAMP 01/21/2015 10:16			374.40g,in 1737.00g,fi AmtRec: 1XLP;3X125MLP	374.40g #Containers: 4					Scr:	G10			Alpha: Beta:
3 M512R-1-AF J5A220430-3-SAMP 01/21/2015 10:23			389.60g,in 1822.10g,fi AmtRec: 1XLP;3X125MLP	389.60g #Containers: 4					Scr:	G15			Alpha: Beta:
4 M512T-1-AF J5A220430-4-SAMP 01/21/2015 10:04			389.30g,in 2030.40g,fi AmtRec: 1XLP;3X125MLP	389.30g #Containers: 4					Scr:	G16			Alpha: Beta:
5 M512T-1-AJ-X J5A220430-4-DUP 01/21/2015 10:04			386.60g,in AmtRec: 1XLP;3X125MLP	386.60g #Containers: 4					Scr:	G18			Alpha: Beta:
6 M512V-1-AF J5A220430-5-SAMP 01/21/2015 09:57			411.70g,in 1892.40g,fi AmtRec: 1XLP;3X125MLP	411.70g #Containers: 4					Scr:	G19			Alpha: Beta:
7 M512W-1-AF J5A220430-6-SAMP 01/21/2015 09:52			394.30g,in 1954.10g,fi AmtRec: 1XLP;3X125MLP	394.30g #Containers: 4					Scr:	G7	1428	1/27/15 JM	Alpha: Beta:

1/26/2015 11:30:33 AM

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: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022033 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M512X-1-AF J5A220430-7-SAMP 01/21/2015 09:45			388.50g,in 1697.60g,fi	388.50g						G10	1428	1/27/15	
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
9 M5120-1-AF J5A220430-8-SAMP 01/21/2015 09:39			406.30g,in 1763.40g,fi	406.30g						G15			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
10 M5121-1-AF J5A220430-9-SAMP 01/21/2015 09:32			417.80g,in 1694.30g,fi	417.80g						G7	1752	1/27/15	
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
11 M5122-1-AF J5A220430-10-SAMP 01/21/2015 09:13			368.60g,in 1398.10g,fi	368.60g						G10			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
12 M5123-1-AF J5A220430-11-SAMP 01/21/2015 09:19			396.20g,in 1860.70g,fi	396.20g						G15			
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
13 M5124-1-AF J5A220430-12-SAMP 01/21/2015 09:26			369.10g,in 1468.40g,fi	369.10g						G7	2126	1/27/15	
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
14 M5125-1-AF J5A220430-13-SAMP 01/21/2015 09:13			392.60g,in 1372.70g,fi	392.60g						G10	2126		
			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:

1/26/2015 11:30:36 AM

Sample Preparation/Analysis

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

Balance Id:1120421763,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022033 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M514H-1-AA-B J5A220000-33-BLK 01/22/2015 15:34 pd			348.00g,in	348.00g	OSBK					G15	2|28	1/27/1500	
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	
16 M514H-1-AC-C J5A220000-33-LCS 01/22/2015 15:34 pd			350.10g,in	350.10g	QC20009 08/04/09,pd 09/01/09,r					G7	0051		
			AmtRec:	#Containers: 1					Scr:	Alpha:		Beta:	

1/26/2015 11:30:38 AM

Sample Preparation/Analysis

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

Balance Id:1120421763,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022033 **pCi/g**
SEQ Batch, Test: None

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

Comments:

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

M512F1AF-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:
K-40	RDL:	pCi/g	LCL:	UCL:	RPD:						

M514H1AA-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:
K-40	RDL:	pCi/g	LCL:	UCL:	RPD:						

M514H1AC-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						

M512F1AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514H1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514H1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/28/2015 9:57:46 AM

ICOC Fraction Transfer/Status Report

ByDate: 1/28/2014, 2/2/2015, Batch: '5022033', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5022033						
AC		**Rev1C**	**GarciaA**	1/26/2015 11:55:37		
SC			Wagarr	IsBatched	1/23/2015 8:18:38 AM	ICOC_RADCALC v4.9.0
SC			GarciaA	Prep1C	1/26/2015 11:55:37 AM	RL-PRP-003 REVISION 5
SC			GarciaA	Prep2C	1/26/2015 11:56:10 AM	RL-GAM-001 REVISION 5
SC			BullJ	InCnt1	1/26/2015 12:18:22 PM	RL-CI-007 REVISION 3
SC			BullJ	CalcC	1/28/2015 8:39:26 AM	RL-CI-007 REVISION 3
SC			antonsonl	Rev1C	1/28/2015 9:56:18 AM	RL-DR-001 Rev 5
AC			**GarciaA**	1/26/2015 11:56:10		
AC			**BullJ**	1/26/2015 12:18:22		
AC			**BullJ**	1/28/2015 8:39:26		
AC			**antonsonl**	1/28/2015 9:56:18		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions

1/23/2015 4:33:37 PM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

AF Ni-63 Prp PRP003/PRP005, Sep LSC017
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

PRIORITY

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022035 **SOIL** **pCi/g** **PM, Quote: RW2, 27038**

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 5022033 AXTA, 5022034 CHTH, 5022035 AFS4, 5022036 7SSR, 5022037 6ISO, 5022038 6ISX, 5022041 DWEA,

Prep Tech: GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AE J5A220430-1-SAMP 01/21/2015 10:10			1.01g,in	1.01g	NITA13426 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
2 M512Q-1-AE J5A220430-2-SAMP 01/21/2015 10:16			1.02g,in	1.02g	NITA13427 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
3 M512R-1-AE J5A220430-3-SAMP 01/21/2015 10:23			1.01g,in	1.01g	NITA13428 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
4 M512R-1-AJ-X J5A220430-3-DUP 01/21/2015 10:23			1.00g,in	1.00g	NITA13429 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
5 M512T-1-AE J5A220430-4-SAMP 01/21/2015 10:04			0.99g,in	0.99g	NITA13430 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
6 M512V-1-AE J5A220430-5-SAMP 01/21/2015 09:57			1.04g,in	1.04g	NITA13431 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
7 M512W-1-AE J5A220430-6-SAMP 01/21/2015 09:52			1.01g,in	1.01g	NITA13432 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:

1/23/2015 4:33:38 PM

Sample Preparation/Analysis

Balance Id:1120373922,,

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

AF Ni-63 Prp PRP003/PRP005, Sep LSC017
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022035 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,GarciaA

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 **M512X-1-AE** J5A220430-7-SAMP 01/21/2015 09:45			1.00g,in	1.00g	NITA13433 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
9 **M5120-1-AE** J5A220430-8-SAMP 01/21/2015 09:39			1.01g,in	1.01g	NITA13434 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
10 **M5121-1-AE** J5A220430-9-SAMP 01/21/2015 09:32			1.03g,in	1.03g	NITA13435 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
11 **M5122-1-AE** J5A220430-10-SAMP 01/21/2015 09:13			0.99g,in	0.99g	NITA13436 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
12 **M5123-1-AE** J5A220430-11-SAMP 01/21/2015 09:19			0.99g,in	0.99g	NITA13437 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
13 **M5124-1-AE** J5A220430-12-SAMP 01/21/2015 09:26			1.02g,in	1.02g	NITA13438 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:
14 **M5125-1-AE** J5A220430-13-SAMP 01/21/2015 09:13			1.00g,in	1.00g	NITA13439 12/17/14 AmtRec: 1XLP;3X125MLP #Containers: 4				Scr:		Alpha:		Beta:

1/23/2015 4:33:40 PM

Sample Preparation/Analysis

AF Ni-63 Prp PRP003/PRP005, Sep LSC017
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:1120373922,,

Pipet #: _____

Sep1 DT/Tm Tech:

Sep2 DT/Tm Tech:

Prep Tech: ,GarciaA

AnalyDueDate: 01/29/2015

Batch: 5022035 **pCi/g**
SEQ Batch, Test: None

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M514P-1-AA-B J5A220000-35-BLK 01/23/2015 12:32 pd			2.01g,in AmtRec:	2.01g #Containers: 1	NITA13440 12/17/14				Scr:		Alpha:		Beta:
16 M514P-1-AC-C J5A220000-35-LCS 01/23/2015 12:34 pd			2.01g,in AmtRec:	2.01g #Containers: 1	NISA2168 11/12/14				Scr:		Alpha:		Beta:
17 M514P-1-AD-BN J5A220000-35-IBLK 01/23/2015 08:16 pd			AmtRec:	#Containers: 1					Scr:		Alpha:		Beta:
18 M514P-1-AE-BN J5A220000-35-IBLK 01/23/2015 08:16 pd			AmtRec:	#Containers: 1					Scr:		Alpha:		Beta:

1/23/2015 4:33:41 PM

Sample Preparation/Analysis

AF Ni-63 Prp PRP003/PRP005, Sep LSC017
S4 Nickel by ICP and Nickel-63 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:,,

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022035 **pCi/g**
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

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

Comments:

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

M512F1AE-SAMP Constituent List:
Ni-63 RDL:30 pCi/g LCL:70 UCL:130 RPD:35
M514P1AA-BLK:
Ni-63 RDL:30 pCi/g LCL: UCL: RPD:
M514P1AC-LCS:
Ni-63 RDL:30 pCi/g LCL:70 UCL:130 RPD:35
M514P1AD-IBLK:
Ni-63 RDL:30 pCi/g LCL: UCL: RPD:
M514P1AE-IBLK:
Ni-63 RDL:30 pCi/g LCL: UCL: RPD:

M512F1AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514P1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514P1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514P1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M514P1AE-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

1/29/2015 12:42:33 PM

ICOC Fraction Transfer/Status Report

ByDate: 1/29/2014, 2/3/2015, Batch: '5022035', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs,Reagents,Comments
5022035						
AC		**Rev1C**	**GarciaA**	1/23/2015 4:39:56 PM		
SC			Wagarr	IsBatched	1/23/2015 8:18:38 AM	ICOC_RADCALC v4.9.0
SC			GarciaA	Prep1C	1/23/2015 4:39:56 PM	RL-PRP-003 REVISION 5
SC			CarneyA	Sep1C	1/28/2015 11:15:04 AM	ST-RC-0055 REVISION 1
SC			BullJ	InCnt1	1/28/2015 11:50:56 AM	RL-CI-005 REVISION 3
SC			BullJ	CalcC	1/29/2015 8:56:08 AM	RL-CI-005 REVISION 3
SC			McginnisT	Rev1C	1/29/2015 12:42:18 PM	RL-DR-001 Rev 5
AC			**CarneyA**	1/28/2015 11:15:04		
AC			**BullJ**	1/28/2015 11:50:56		
AC			**BullJ**	1/29/2015 8:56:08		
AC			**McginnisT**	1/29/2015 12:42:18		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions

1/23/2015 2:53:11 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: 01/29/2015

Batch: 5022041 SOIL mg/kg PM, Quote: RW2, 27038
SEQ Batch, Test: None All Tests: 5022033 AXTA, 5022034 CHTH, 5022035 AFS4, 5022036 7SSR, 5022037 6ISO, 5022038 6ISX, 5022041 DWEA,

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 M512F-1-AA J5A220430-1-SAMP 01/21/2015 10:10	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								
2 M512F-1-AN-S J5A220430-1-MS 01/21/2015 10:10	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								
3 M512F-1-AP-X J5A220430-1-DUP 01/21/2015 10:10	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								
4 M512F-1-AQ-S J5A220430-1-MS 01/21/2015 10:10	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								
5 M512Q-1-AA J5A220430-2-SAMP 01/21/2015 10:16	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								
6 M512R-1-AA J5A220430-3-SAMP 01/21/2015 10:23	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								
7 M512T-1-AA J5A220430-4-SAMP 01/21/2015 10:04	AmtRec: 1XLP;3X125MLP	#Containers: 4	Scr:	Alpha:	Beta:								

TestAmerica Richland Wa. Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added Page 1 ISV - Insufficient Volume for Analysis WO Cnt: 7 ICOC v4.9.0

1/23/2015 2:53:12 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 #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022041 SOIL mg/kg
SEQ Batch, Test: None

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

Prep Tech:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 M512V-1-AA													
J5A220430-5-SAMP													
01/21/2015 09:57			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
9 M512W-1-AA													
J5A220430-6-SAMP													
01/21/2015 09:52			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
10 M512X-1-AA													
J5A220430-7-SAMP													
01/21/2015 09:45			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
11 M5120-1-AA													
J5A220430-8-SAMP													
01/21/2015 09:39			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
12 M5121-1-AA													
J5A220430-9-SAMP													
01/21/2015 09:32			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
13 M5122-1-AA													
J5A220430-10-SAMP													
01/21/2015 09:13			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
14 M5123-1-AA													
J5A220430-11-SAMP													
01/21/2015 09:19			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:

1/23/2015 2:53:12 PM

Sample Preparation/Analysis

Balance Id:,,

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

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

Pipet #: _____

AnalyDueDate: 01/29/2015

Sep1 DT/Tm Tech:

Batch: 5022041 SOIL mg/kg **PM, Quote: RW2, 27038**

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
15 M5124-1-AA													
J5A220430-12-SAMP													
01/21/2015 09:26			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
16 M5125-1-AA													
J5A220430-13-SAMP													
01/21/2015 09:13			AmtRec: 1XLP;3X125MLP		#Containers: 4				Scr:		Alpha:		Beta:
17 M516P-1-AA-B													
J5A220000-41-BLK													
01/23/2015 14:53 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:
18 M516P-1-AC-C													
J5A220000-41-LCS													
01/23/2015 14:53 pd			AmtRec:		#Containers: 1				Scr:		Alpha:		Beta:

1/23/2015 2:53:13 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: 01/29/2015

Batch: 5022041 **mg/kg**
SEQ Batch, Test: None

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

Comments:

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

M512F1AA-SAMP Constituent List:

HEXCHROME	RDL:.1548	mg/kg	LCL:80	UCL:120	RPD:20	HXCR	RDL:.1548	mg/kg	LCL:80	UCL:120	RPD:20

M512F1AN-MS Constituent List:

HEXCHROME	RDL:0.35	mg/kg	LCL:75	UCL:125	RPD:20	HXCR	RDL:0.35	mg/kg	LCL:75	UCL:125	RPD:20

M512F1AQ-MS:

HEXCHROME	RDL:0.35	mg/kg	LCL:75	UCL:125	RPD:20	HXCR	RDL:0.35	mg/kg	LCL:75	UCL:125	RPD:20

M516P1AA-BLK:

HEXCHROME	RDL:.1548	mg/kg	LCL:	UCL:	RPD:	HXCR	RDL:.1548	mg/kg	LCL:	UCL:	RPD:

M516P1AC-LCS:

HEXCHROME	RDL:0.35	mg/kg	LCL:80	UCL:120	RPD:20	HXCR	RDL:0.35	mg/kg	LCL:80	UCL:120	RPD:20

M512F1AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M512F1AN-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M512F1AQ-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M516P1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
M516P1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

ANALYTICAL REPORT

Job Number: 280-64693-1

SDG Number: JP0897

Job Description: SAF# RC-075

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Senior Project Manager
1/30/2015 10:44 AM

Kae E Yoder, Senior Project Manager
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01/30/2015

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 4025.

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

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Job Number: 280-64693-1

SDG #: JP0897
SAF#: RC-075

Date SDG Closed: January 23, 2015
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1V340	280-64693-1	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V341	280-64693-2	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V342	280-64693-3	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V343	280-64693-4	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V344	280-64693-5	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V345	280-64693-6	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V346	280-64693-7	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V347	280-64693-8	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V348	280-64693-9	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V349	280-64693-10	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V350	280-64693-11	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V351	280-64693-12	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V352	280-64693-13	6010/7471/8082/9056M/353.2	6010B/7471A/8082/9056M/353.2
J1V353	280-64693-14	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 1/23/2015 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6º C.

GC SEMIVOLATILES - SW846 8082 - PCBs
No anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-261490 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. Samples J1V340, J1V343, J1V345 and J1V347 required a 5X dilution prior to the analysis of Antimony, Beryllium, Cobalt, Copper, Lead and Vanadium to minimize the interference caused by Titanium concentrations greater than the linear range. The reporting limits have been adjusted relative to the dilution required.

Low levels of Calcium, Magnesium, Aluminum, Barium and Iron are present in the method blank associated with batch 280-261490. Because the concentrations in the method blank are not present at levels greater than half the reporting limit or the associated sample amounts are twenty times greater than the method blank concentration, corrective action is deemed unnecessary.

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 J1V340; therefore, control limits are not applicable.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE NITRITE as N

No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS

Chloride is present in the method blank associated with batch 280-261613 at 7.32 mg/kg, which is greater than the project specific reporting limit (PSRL) of 5 mg/kg. TestAmerica's practical quantitation limit (PQL) for Chloride is 30 mg/kg. The laboratory cannot maintain system cleanliness at this low level; therefore, corrective action is not initiated. It can be noted that the concentration found in the method blank is less than half of the laboratory standard PQL.

The Matrix Spike performed on sample J1V352 exhibited the percent recovery outside the control limits for Orthophosphate as P, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Lab Section	Qualifier	Description
GC Semi VOA		
	U	Analyzed for but not detected.
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 greater than 4 times 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.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-64693-1	J1V340	Solid	01/21/2015 1010	01/23/2015 0930
280-64693-2	J1V341	Solid	01/21/2015 1016	01/23/2015 0930
280-64693-3	J1V342	Solid	01/21/2015 1023	01/23/2015 0930
280-64693-4	J1V343	Solid	01/21/2015 1004	01/23/2015 0930
280-64693-5	J1V344	Solid	01/21/2015 0957	01/23/2015 0930
280-64693-6	J1V345	Solid	01/21/2015 0952	01/23/2015 0930
280-64693-7	J1V346	Solid	01/21/2015 0945	01/23/2015 0930
280-64693-8	J1V347	Solid	01/21/2015 0939	01/23/2015 0930
280-64693-9	J1V348	Solid	01/21/2015 0932	01/23/2015 0930
280-64693-10	J1V349	Solid	01/21/2015 0913	01/23/2015 0930
280-64693-11	J1V350	Solid	01/21/2015 0919	01/23/2015 0930
280-64693-12	J1V351	Solid	01/21/2015 0926	01/23/2015 0930
280-64693-13	J1V352	Solid	01/21/2015 0913	01/23/2015 0930
280-64693-14	J1V353	Solid	01/21/2015 0907	01/23/2015 0930

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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: 280-64693-1
Sdg Number: JP0897

Method	Analyst	Analyst ID
SW846 8082	Jackson, Todd D	TDJ
SW846 6010B	Broander, Laura L	LLB
SW846 6010B	Scott, Samantha J	SJS
SW846 7471A	Whyte, Whitney A	WAW
MCAWW 353.2	Schultz, Cassandra M	CMS
SW846 9056M	Phan, Thu L	TLP
ASTM D-2216	Schwemin, Andrew J	AJS

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V340**

Lab Sample ID: 280-64693-1
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 01/21/2015 1010
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1005			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	79		59 - 130
Tetrachloro-m-xylene	81		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V341**

Lab Sample ID: 280-64693-2
Client Matrix: Solid
% Moisture: 5.2

Date Sampled: 01/21/2015 1016
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.6 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1028			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	77		59 - 130
Tetrachloro-m-xylene	80		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V342**

Lab Sample ID: 280-64693-3
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 01/21/2015 1023
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1052			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	78		59 - 130
Tetrachloro-m-xylene	80		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V343**

Lab Sample ID: 280-64693-4
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 1004
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.0 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1115			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.9	U	4.9	10
Aroclor 1248		4.9	U	4.9	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	76		59 - 130
Tetrachloro-m-xylene	79		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V344**

Lab Sample ID: 280-64693-5
Client Matrix: Solid
% Moisture: 4.5

Date Sampled: 01/21/2015 0957
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1138			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	73		59 - 130
Tetrachloro-m-xylene	79		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V345**

Lab Sample ID: 280-64693-6
Client Matrix: Solid
% Moisture: 3.7

Date Sampled: 01/21/2015 0952
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	31.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1201			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.0	U	8.0	16
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	77		59 - 130
Tetrachloro-m-xylene	76		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V346**

Lab Sample ID: 280-64693-7
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 01/21/2015 0945
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	31.1 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1225			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	72		59 - 130
Tetrachloro-m-xylene	81		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V347**

Lab Sample ID: 280-64693-8
Client Matrix: Solid
% Moisture: 5.6

Date Sampled: 01/21/2015 0939
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	31.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1248			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	78		59 - 130
Tetrachloro-m-xylene	80		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V348**

Lab Sample ID: 280-64693-9
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 01/21/2015 0932
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1335			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	76		59 - 130
Tetrachloro-m-xylene	77		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V349**

Lab Sample ID: 280-64693-10
Client Matrix: Solid
% Moisture: 7.9

Date Sampled: 01/21/2015 0913
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1358			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		3.0	U	3.0	11
Aroclor 1221		8.6	U	8.6	18
Aroclor 1232		2.2	U	2.2	11
Aroclor 1242		5.0	U	5.0	11
Aroclor 1248		5.0	U	5.0	11
Aroclor 1254		2.8	U	2.8	11
Aroclor 1260		2.8	U	2.8	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	77		59 - 130
Tetrachloro-m-xylene	83		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V350**

Lab Sample ID: 280-64693-11
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 0919
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.6 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1421			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	77		59 - 130
Tetrachloro-m-xylene	79		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V351**

Lab Sample ID: 280-64693-12
Client Matrix: Solid
% Moisture: 5.3

Date Sampled: 01/21/2015 0926
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1444			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.4	U	8.4	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.9	U	4.9	10
Aroclor 1248		4.9	U	4.9	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	78		59 - 130
Tetrachloro-m-xylene	78		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V352**

Lab Sample ID: 280-64693-13
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/21/2015 0913
Date Received: 01/23/2015 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Prep Method:	3550C	Prep Batch:	280-261509	Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1508			Injection Volume:	1 uL
Prep Date:	01/23/2015 1900			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	11
Aroclor 1221		8.5	U	8.5	18
Aroclor 1232		2.1	U	2.1	11
Aroclor 1242		5.0	U	5.0	11
Aroclor 1248		5.0	U	5.0	11
Aroclor 1254		2.8	U	2.8	11
Aroclor 1260		2.8	U	2.8	11

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	79		59 - 130
Tetrachloro-m-xylene	82		53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V340**

Lab Sample ID: 280-64693-1
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 01/21/2015 1010
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/26/2015 1703			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.96	U	0.96	1.9
Calcium		6080		13.7	48.7
Magnesium		4010	X	3.6	19.5
Manganese		287	X	0.097	0.97
Silicon		222		5.5	9.7
Silver		0.16	U	0.16	0.19
Zinc		43.0	X	0.39	0.97

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/27/2015 1456			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4540		1.5	4.9
Arsenic		2.2		0.64	0.97
Barium		42.7	X	0.074	0.49
Cadmium		0.10	B	0.040	0.19
Chromium		4.4	X	0.057	0.19
Iron		24300	X	3.7	4.9
Molybdenum		0.25	U	0.25	1.9
Nickel		7.6	X	0.12	3.9
Potassium		634		40.0	292
Selenium		0.84	U	0.84	0.97
Sodium		335		57.5	117

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	5.0			Initial Weight/Volume:	1.08 g
Analysis Date:	01/27/2015 1411			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.9	U	1.9	2.9
Beryllium		0.66	B	0.16	0.97
Cobalt		11.9		0.49	4.9
Copper		16.0		1.1	4.9
Lead		2.2	B	1.3	2.4
Vanadium		73.6	X	0.46	9.7

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V340**

Lab Sample ID: 280-64693-1
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 01/21/2015 1010
Date Received: 01/23/2015 0930

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	01/28/2015 0847			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

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

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V341**

Lab Sample ID: 280-64693-2
Client Matrix: Solid
% Moisture: 5.2

Date Sampled: 01/21/2015 1016
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Analysis Date:	01/26/2015 1713			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.2		0.36	0.58
Beryllium		0.42		0.032	0.19
Boron		0.94	U	0.94	1.9
Calcium		6220		13.5	48.0
Lead		2.7		0.26	0.48
Magnesium		4290	X	3.5	19.2
Manganese		321	X	0.096	0.96
Selenium		0.83	U	0.83	0.96
Silicon		228		5.4	9.6
Silver		0.15	U	0.15	0.19
Vanadium		66.6	X	0.090	1.9
Zinc		42.9	X	0.38	0.96

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.10 g
Analysis Date:	01/27/2015 1507			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4490		1.5	4.8
Arsenic		2.1		0.63	0.96
Barium		56.7	X	0.073	0.48
Cadmium		0.13	B	0.039	0.19
Chromium		5.1	X	0.056	0.19
Cobalt		10.2		0.096	0.96
Copper		14.2		0.21	0.96
Iron		25500	X	3.6	4.8
Molybdenum		0.25	U	0.25	1.9
Nickel		7.7	X	0.12	3.8
Potassium		749		39.3	288
Sodium		291		56.6	115

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	01/28/2015 0854			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

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

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V342**

Lab Sample ID: 280-64693-3
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 01/21/2015 1023
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	01/26/2015 1716			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.86	U	0.86	1.8
Calcium		6760		12.4	44.0
Magnesium		4430	X	3.3	17.6
Manganese		308	X	0.088	0.88
Selenium		0.76	U	0.76	0.88
Silicon		248		5.0	8.8
Silver		0.14	U	0.14	0.18
Zinc		42.5	X	0.35	0.88

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	01/27/2015 1520			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5040		1.4	4.4
Antimony		1.1		0.33	0.53
Arsenic		2.3		0.58	0.88
Barium		51.4	X	0.067	0.44
Beryllium		0.55		0.029	0.18
Cadmium		0.10	B	0.036	0.18
Chromium		5.2	X	0.051	0.18
Cobalt		10.2		0.088	0.88
Copper		13.4		0.19	0.88
Iron		25300	X	3.3	4.4
Lead		2.4		0.24	0.44
Molybdenum		0.23	U	0.23	1.8
Nickel		8.1	X	0.11	3.5
Potassium		788		36.1	264
Sodium		324		52.0	106
Vanadium		64.9	X	0.083	1.8

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	01/28/2015 0856			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0057	U	0.0057	0.018

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V343**

Lab Sample ID: 280-64693-4
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 1004
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	01/26/2015 1718			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		1.0	U	1.0	2.1
Calcium		7560		14.7	52.3
Magnesium		4560	X	3.9	20.9
Manganese		371	X	0.10	1.0
Selenium		0.90	U	0.90	1.0
Silicon		288		5.9	10.5
Silver		0.17	U	0.17	0.21
Zinc		48.2	X	0.42	1.0

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.00 g
Analysis Date:	01/27/2015 1522			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5310		1.6	5.2
Arsenic		2.8		0.69	1.0
Barium		64.7	X	0.079	0.52
Cadmium		0.15	B	0.043	0.21
Chromium		5.0	X	0.061	0.21
Iron		27900	X	4.0	5.2
Molybdenum		0.27	U	0.27	2.1
Nickel		7.7	X	0.13	4.2
Potassium		768		42.8	314
Sodium		315		61.7	125

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	5.0			Initial Weight/Volume:	1.00 g
Analysis Date:	01/27/2015 1427			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		2.0	U	2.0	3.1
Beryllium		0.82	B	0.17	1.0
Cobalt		13.2		0.52	5.2
Copper		17.2		1.1	5.2
Lead		2.9		1.4	2.6
Vanadium		83.1	X	0.49	10.5

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V343**

Lab Sample ID: 280-64693-4
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 1004
Date Received: 01/23/2015 0930

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	01/28/2015 0859			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0061	B	0.0053	0.016

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V344**

Lab Sample ID: 280-64693-5
Client Matrix: Solid
% Moisture: 4.5

Date Sampled: 01/21/2015 0957
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1721			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.2		0.39	0.62
Beryllium		0.47		0.034	0.21
Boron		1.0	U	1.0	2.1
Calcium		6940		14.6	51.8
Lead		3.1		0.28	0.52
Magnesium		4550	X	3.8	20.7
Manganese		313	X	0.10	1.0
Silicon		247		5.9	10.4
Silver		0.17	U	0.17	0.21
Vanadium		77.7	X	0.097	2.1
Zinc		48.5	X	0.41	1.0

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/27/2015 1525			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4980		1.6	5.2
Arsenic		2.1		0.68	1.0
Barium		48.2	X	0.079	0.52
Cadmium		0.12	B	0.043	0.21
Chromium		4.5	X	0.060	0.21
Cobalt		11.0		0.10	1.0
Copper		15.1		0.23	1.0
Iron		26800	X	3.9	5.2
Molybdenum		0.27	U	0.27	2.1
Nickel		8.7	X	0.13	4.1
Potassium		716		42.5	311
Selenium		0.89	U	0.89	1.0
Sodium		383		61.2	124

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.70 g
Analysis Date:	01/28/2015 0901			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0050	U	0.0050	0.015

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V345**

Lab Sample ID: 280-64693-6
Client Matrix: Solid
% Moisture: 3.7

Date Sampled: 01/21/2015 0952
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	01/26/2015 1734			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.95	U	0.95	1.9
Calcium		6360		13.7	48.5
Magnesium		4160	X	3.6	19.4
Manganese		301	X	0.097	0.97
Silicon		222		5.5	9.7
Zinc		44.4	X	0.39	0.97

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.07 g
Analysis Date:	01/27/2015 1528			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4480		1.5	4.9
Arsenic		2.3		0.64	0.97
Barium		48.9	X	0.074	0.49
Cadmium		0.10	B	0.040	0.19
Chromium		4.7	X	0.056	0.19
Iron		26200	X	3.7	4.9
Molybdenum		0.25	U	0.25	1.9
Nickel		7.5	X	0.12	3.9
Potassium		651		39.8	291
Selenium		0.83	U	0.83	0.97
Silver		0.16	U	0.16	0.19
Sodium		362		57.3	117

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	5.0			Initial Weight/Volume:	1.07 g
Analysis Date:	01/27/2015 1443			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		2.1	B	1.8	2.9
Beryllium		0.70	B	0.16	0.97
Cobalt		12.4		0.49	4.9
Copper		16.6		1.1	4.9
Lead		1.9	B	1.3	2.4
Vanadium		78.6	X	0.46	9.7

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V345**

Lab Sample ID: 280-64693-6
Client Matrix: Solid
% Moisture: 3.7

Date Sampled: 01/21/2015 0952
Date Received: 01/23/2015 0930

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	01/28/2015 0903			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0057	U	0.0057	0.017

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V346**

Lab Sample ID: 280-64693-7
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 01/21/2015 0945
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1736			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.43		0.035	0.21
Boron		1.0	U	1.0	2.1
Calcium		7250		14.9	52.7
Lead		3.0		0.28	0.53
Magnesium		4140	X	3.9	21.1
Manganese		304	X	0.11	1.1
Silicon		283		6.0	10.5
Vanadium		64.2	X	0.099	2.1
Zinc		41.4	X	0.42	1.1

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/27/2015 1530			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5090		1.6	5.3
Antimony		1.1		0.40	0.63
Arsenic		2.6		0.70	1.1
Barium		51.8	X	0.080	0.53
Cadmium		0.12	B	0.043	0.21
Chromium		6.1	X	0.061	0.21
Cobalt		9.5		0.11	1.1
Copper		13.4		0.23	1.1
Iron		23200	X	4.0	5.3
Molybdenum		0.27	U	0.27	2.1
Nickel		8.3	X	0.13	4.2
Potassium		788		43.2	316
Selenium		0.91	U	0.91	1.1
Silver		0.17	U	0.17	0.21
Sodium		291		62.2	126

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	01/28/2015 0910			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0067	B	0.0058	0.018

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V347**

Lab Sample ID: 280-64693-8
Client Matrix: Solid
% Moisture: 5.6

Date Sampled: 01/21/2015 0939
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	01/26/2015 1739			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Boron		0.92	U	0.92	1.9
Calcium		8790		13.2	46.9
Magnesium		4580	X	3.5	18.7
Manganese		319	X	0.094	0.94
Silicon		271		5.3	9.4
Zinc		46.4	X	0.37	0.94

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	01/27/2015 1544			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5590		1.5	4.7
Arsenic		2.7		0.62	0.94
Barium		56.6	X	0.071	0.47
Cadmium		0.13	B	0.038	0.19
Chromium		6.5	X	0.054	0.19
Iron		26200	X	3.6	4.7
Molybdenum		0.24	U	0.24	1.9
Nickel		8.3	X	0.12	3.7
Potassium		759		38.4	281
Selenium		0.81	U	0.81	0.94
Silver		0.15	U	0.15	0.19
Sodium		322		55.3	112

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	5.0			Initial Weight/Volume:	1.13 g
Analysis Date:	01/27/2015 1448			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.8	U	1.8	2.8
Beryllium		0.77	B	0.15	0.94
Cobalt		12.5		0.47	4.7
Copper		17.4		1.0	4.7
Lead		2.3		1.3	2.3
Vanadium		80.5	X	0.44	9.4

7471A Mercury (CVAA)

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V347**

Lab Sample ID: 280-64693-8
Client Matrix: Solid
% Moisture: 5.6

Date Sampled: 01/21/2015 0939
Date Received: 01/23/2015 0930

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.68 g
Analysis Date:	01/28/2015 0912			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0089	B	0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V348**

Lab Sample ID: 280-64693-9
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 01/21/2015 0932
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/26/2015 1741			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.44		0.034	0.21
Boron		1.0	U	1.0	2.1
Calcium		7430		14.7	52.2
Lead		3.4		0.28	0.52
Magnesium		4170	X	3.9	20.9
Manganese		300	X	0.10	1.0
Silicon		425		5.9	10.4
Vanadium		61.5	X	0.098	2.1
Zinc		42.1	X	0.42	1.0

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	01/27/2015 1546			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6140		1.6	5.2
Antimony		1.1		0.40	0.63
Arsenic		2.7		0.69	1.0
Barium		55.3	X	0.079	0.52
Cadmium		0.11	B	0.043	0.21
Chromium		6.8	X	0.061	0.21
Cobalt		9.4		0.10	1.0
Copper		15.5		0.23	1.0
Iron		23000	X	4.0	5.2
Molybdenum		0.27	U	0.27	2.1
Nickel		8.8	X	0.13	4.2
Potassium		992		42.8	313
Selenium		0.90	U	0.90	1.0
Silver		0.17	U	0.17	0.21
Sodium		336		61.6	125

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	01/28/2015 0915			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0079	B	0.0057	0.018

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V349**

Lab Sample ID: 280-64693-10
Client Matrix: Solid
% Moisture: 7.9

Date Sampled: 01/21/2015 0913
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	01/26/2015 1744			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.39		0.031	0.19
Boron		0.91	U	0.91	1.9
Calcium		8290		13.1	46.4
Lead		4.0		0.25	0.46
Magnesium		4460	X	3.4	18.6
Manganese		320	X	0.093	0.93
Silicon		426		5.3	9.3
Vanadium		47.9	X	0.087	1.9
Zinc		37.0	X	0.37	0.93

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	01/27/2015 1549			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7250		1.4	4.6
Antimony		0.48	B	0.35	0.56
Arsenic		3.2		0.61	0.93
Barium		76.0	X	0.071	0.46
Cadmium		0.16	B	0.038	0.19
Chromium		11.3	X	0.054	0.19
Cobalt		7.8		0.093	0.93
Copper		14.3		0.20	0.93
Iron		19500	X	3.5	4.6
Molybdenum		0.24	U	0.24	1.9
Nickel		11.5	X	0.11	3.7
Potassium		1180		38.0	278
Selenium		0.80	U	0.80	0.93
Silver		0.15	U	0.15	0.19
Sodium		185		54.7	111

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.63 g
Analysis Date:	01/28/2015 0917			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0077	B	0.0057	0.018

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V350**

Lab Sample ID: 280-64693-11
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 0919
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	01/26/2015 1746			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.44		0.029	0.18
Boron		0.86	U	0.86	1.8
Calcium		7400		12.4	43.9
Lead		2.7		0.24	0.44
Magnesium		4130	X	3.2	17.6
Manganese		293	X	0.088	0.88
Silicon		233		5.0	8.8
Vanadium		63.2	X	0.083	1.8
Zinc		41.2	X	0.35	0.88

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.19 g
Analysis Date:	01/27/2015 1551			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5340		1.4	4.4
Antimony		1.2		0.33	0.53
Arsenic		2.4		0.58	0.88
Barium		55.6	X	0.067	0.44
Cadmium		0.11	B	0.036	0.18
Chromium		6.7	X	0.051	0.18
Cobalt		9.3		0.088	0.88
Copper		14.6		0.19	0.88
Iron		23200	X	3.3	4.4
Molybdenum		0.23	U	0.23	1.8
Nickel		8.6	X	0.11	3.5
Potassium		757		36.0	263
Selenium		0.75	U	0.75	0.88
Silver		0.14	U	0.14	0.18
Sodium		276		51.8	105

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	01/28/2015 0919			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0060	B	0.0054	0.017

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V351**

Lab Sample ID: 280-64693-12
Client Matrix: Solid
% Moisture: 5.3

Date Sampled: 01/21/2015 0926
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/26/2015 1749			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.39		0.035	0.21
Boron		1.0	U	1.0	2.1
Calcium		6840		14.7	52.3
Lead		3.2		0.28	0.52
Magnesium		4340	X	3.9	20.9
Manganese		294	X	0.10	1.0
Silicon		397		5.9	10.5
Vanadium		49.6	X	0.098	2.1
Zinc		37.2	X	0.42	1.0

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	01/27/2015 1554			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7090		1.6	5.2
Antimony		0.55	B	0.40	0.63
Arsenic		2.8		0.69	1.0
Barium		65.6	X	0.079	0.52
Cadmium		0.13	B	0.043	0.21
Chromium		10.2	X	0.061	0.21
Cobalt		7.8		0.10	1.0
Copper		13.0		0.23	1.0
Iron		19700	X	4.0	5.2
Molybdenum		0.27	U	0.27	2.1
Nickel		11.0	X	0.13	4.2
Potassium		1200		42.9	314
Selenium		0.90	U	0.90	1.0
Silver		0.17	U	0.17	0.21
Sodium		218		61.7	126

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.69 g
Analysis Date:	01/28/2015 0922			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0071	B	0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V352**

Lab Sample ID: 280-64693-13
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/21/2015 0913
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Analysis Date:	01/26/2015 1752			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.42		0.031	0.19
Boron		0.93	U	0.93	1.9
Calcium		7830		13.3	47.2
Lead		4.0		0.25	0.47
Magnesium		4360	X	3.5	18.9
Manganese		299	X	0.094	0.94
Silicon		384		5.3	9.4
Vanadium		48.6	X	0.089	1.9
Zinc		36.1	X	0.38	0.94

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Analysis Date:	01/27/2015 1557			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7320		1.5	4.7
Antimony		0.57		0.36	0.57
Arsenic		2.9		0.62	0.94
Barium		72.1	X	0.072	0.47
Cadmium		0.13	B	0.039	0.19
Chromium		11.4	X	0.055	0.19
Cobalt		7.6		0.094	0.94
Copper		14.8		0.20	0.94
Iron		19500	X	3.6	4.7
Molybdenum		0.25	U	0.25	1.9
Nickel		11.5	X	0.12	3.8
Potassium		1180		38.7	283
Selenium		0.81	U	0.81	0.94
Silver		0.15	U	0.15	0.19
Sodium		180		55.7	113

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.61 g
Analysis Date:	01/28/2015 0924			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.019		0.0059	0.018

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Client Sample ID: **J1V353**

Lab Sample ID: 280-64693-14
Client Matrix: Solid
% Moisture: 0.0

Date Sampled: 01/21/2015 0907
Date Received: 01/23/2015 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-261749	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	01/26/2015 1754			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.12	B	0.032	0.19
Boron		0.94	U	0.94	1.9
Calcium		48.2	C	13.6	48.1
Lead		0.75		0.26	0.48
Magnesium		39.3	X	3.6	19.2
Manganese		6.7	X	0.096	0.96
Silicon		100		5.4	9.6
Vanadium		7.0	X	0.090	1.9
Zinc		2.0	X	0.38	0.96

Analysis Method:	6010B	Analysis Batch:	280-261948	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	01/27/2015 1559			Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		221		1.5	4.8
Antimony		0.37	U	0.37	0.58
Arsenic		1.8		0.63	0.96
Barium		1.8	X	0.073	0.48
Cadmium		0.039	U	0.039	0.19
Chromium		1.5	X	0.056	0.19
Cobalt		0.43	B	0.096	0.96
Copper		1.1		0.21	0.96
Iron		2070	X	3.7	4.8
Molybdenum		0.25	U	0.25	1.9
Nickel		1.3	B X	0.12	3.8
Potassium		51.5	B	39.4	288
Selenium		0.83	U	0.83	0.96
Silver		0.15	U	0.15	0.19
Sodium		56.7	U	56.7	115

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.65 g
Analysis Date:	01/28/2015 0926			Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				

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

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

General Chemistry

Client Sample ID: **J1V340**

Lab Sample ID: 280-64693-1
Client Matrix: Solid
% Moisture: 5.0

Date Sampled: 01/21/2015 1010
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2026						DryWt Corrected: Y
Chloride-Soluble	7.7	C	mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Nitrate as N-Soluble	0.83	B	mg/Kg	0.32	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Sulfate-Soluble	7.3		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y
Fluoride-Soluble	1.1	B	mg/Kg	0.83	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2002						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.0		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

General Chemistry

Client Sample ID: **J1V341**

Lab Sample ID: 280-64693-2
Client Matrix: Solid
% Moisture: 5.2

Date Sampled: 01/21/2015 1016
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.77	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2032						DryWt Corrected: Y
Chloride-Soluble	8.1	C	mg/Kg	2.1	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Nitrate as N-Soluble	1.0	B	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Orthophosphate as P-Soluble	2.2	B	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Sulfate-Soluble	8.8		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Fluoride-Soluble	1.1	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.2		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

General Chemistry

Client Sample ID: **J1V342**

Lab Sample ID: 280-64693-3
Client Matrix: Solid
% Moisture: 4.6

Date Sampled: 01/21/2015 1023
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.77	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2034						DryWt Corrected: Y
Chloride-Soluble	14.1	C	mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y
Nitrate as N-Soluble	1.1	B	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y
Orthophosphate as P-Soluble	2.2	B	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y
Sulfate-Soluble	7.7		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y
Fluoride-Soluble	1.0	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2122						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.6		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V343**

Lab Sample ID: 280-64693-4
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 1004
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.77	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2036						DryWt Corrected: Y
Chloride-Soluble	8.0	C	mg/Kg	2.1	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y
Nitrate as N-Soluble	0.68	B	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y
Sulfate-Soluble	8.1		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2142						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.3		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

General Chemistry

Client Sample ID: **J1V344**

Lab Sample ID: 280-64693-5
Client Matrix: Solid
% Moisture: 4.5

Date Sampled: 01/21/2015 0957
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2038						DryWt Corrected: Y
Chloride-Soluble	8.2	C	mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y
Nitrate as N-Soluble	0.67	B	mg/Kg	0.32	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y
Sulfate-Soluble	1.7	U	mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y
Fluoride-Soluble	1.1	B	mg/Kg	0.83	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2202						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.5		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V345**

Lab Sample ID: 280-64693-6
Client Matrix: Solid
% Moisture: 3.7

Date Sampled: 01/21/2015 0952
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	0.74	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2052						DryWt Corrected: Y
Chloride-Soluble	7.8	C	mg/Kg	2.0	4.9	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y
Nitrate as N-Soluble	0.78	B	mg/Kg	0.31	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y
Bromide-Soluble	0.38	U	mg/Kg	0.38	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y
Nitrite as N-Soluble	0.33	U	mg/Kg	0.33	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	4.9	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y
Sulfate-Soluble	15.5		mg/Kg	1.7	4.9	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.81	4.9	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2221						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	3.7		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

General Chemistry

Client Sample ID: **J1V346**

Lab Sample ID: 280-64693-7
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 01/21/2015 0945
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2054						DryWt Corrected: Y
Chloride-Soluble	8.2	C	mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y
Nitrate as N-Soluble	0.68	B	mg/Kg	0.32	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y
Bromide-Soluble	0.39	U	mg/Kg	0.39	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y
Sulfate-Soluble	8.7		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.83	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2321						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.1		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V347**

Lab Sample ID: 280-64693-8
Client Matrix: Solid
% Moisture: 5.6

Date Sampled: 01/21/2015 0939
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.77	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2056						DryWt Corrected: Y
Chloride-Soluble	8.0	C	mg/Kg	2.1	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y
Nitrate as N-Soluble	0.32	U	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y
Sulfate-Soluble	7.4		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y
Fluoride-Soluble	1.5	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/26/2015 2341						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.6		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V348**

Lab Sample ID: 280-64693-9
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 01/21/2015 0932
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.76	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2058						DryWt Corrected: Y
Chloride-Soluble	8.1	C	mg/Kg	2.0	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y
Nitrate as N-Soluble	0.76	B	mg/Kg	0.32	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y
Nitrite as N-Soluble	0.34	U	mg/Kg	0.34	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.9	B	mg/Kg	1.3	5.1	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y
Sulfate-Soluble	7.4		mg/Kg	1.7	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y
Fluoride-Soluble	1.4	B	mg/Kg	0.84	5.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0001						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.1		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V349**

Lab Sample ID: 280-64693-10
Client Matrix: Solid
% Moisture: 7.9

Date Sampled: 01/21/2015 0913
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.38	U	mg/Kg	0.38	0.80	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2100						DryWt Corrected: Y
Chloride-Soluble	8.9	C	mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y
Nitrate as N-Soluble	0.70	B	mg/Kg	0.33	2.7	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y
Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	2.7	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y
Sulfate-Soluble	1.8	U	mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.87	5.3	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0021						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.9		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V350**

Lab Sample ID: 280-64693-11
Client Matrix: Solid
% Moisture: 4.3

Date Sampled: 01/21/2015 0919
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	0.75	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2102						DryWt Corrected: Y
Chloride-Soluble	7.8	C	mg/Kg	2.0	5.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y
Nitrate as N-Soluble	0.31	U	mg/Kg	0.31	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y
Bromide-Soluble	0.39	U	mg/Kg	0.39	2.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y
Nitrite as N-Soluble	0.33	U	mg/Kg	0.33	2.5	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	5.0	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y
Sulfate-Soluble	1.7	U	mg/Kg	1.7	5.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y
Fluoride-Soluble	1.3	B	mg/Kg	0.82	5.0	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0041						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.3		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V351**

Lab Sample ID: 280-64693-12
Client Matrix: Solid
% Moisture: 5.3
Date Sampled: 01/21/2015 0926
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.37	U	mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2104						DryWt Corrected: Y
Chloride-Soluble	8.4	C	mg/Kg	2.1	5.2	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y
Nitrate as N-Soluble	0.71	B	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y
Sulfate-Soluble	7.2		mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y
Fluoride-Soluble	1.3	B	mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0101						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.3		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V352**

Lab Sample ID: 280-64693-13
Client Matrix: Solid
% Moisture: 7.1

Date Sampled: 01/21/2015 0913
Date Received: 01/23/2015 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.38	U	mg/Kg	0.38	0.79	1.0	353.2
Analysis Batch: 280-261736	Analysis Date: 01/26/2015 2106						DryWt Corrected: Y
Chloride-Soluble	8.7	C	mg/Kg	2.1	5.3	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y
Nitrate as N-Soluble	0.71	B	mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y
Bromide-Soluble	0.41	U	mg/Kg	0.41	2.1	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y
Nitrite as N-Soluble	0.36	U	mg/Kg	0.36	2.6	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U N	mg/Kg	1.3	5.3	1.0	9056M
Analysis Batch: 280-261612	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y
Sulfate-Soluble	6.9		mg/Kg	1.8	5.3	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y
Fluoride-Soluble	1.2	B	mg/Kg	0.87	5.3	1.0	9056M
Analysis Batch: 280-261613	Analysis Date: 01/27/2015 0121						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	7.1		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-261545	Analysis Date: 01/24/2015 1307						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1V353**

Lab Sample ID: 280-64693-14
Client Matrix: Solid

Date Sampled: 01/21/2015 0907
Date Received: 01/23/2015 0930

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

Analysis Batch: 280-261545 Analysis Date: 01/24/2015 1307 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	TCX1 %Rec
280-64693-1	J1V340	79	81
280-64693-2	J1V341	77	80
280-64693-3	J1V342	78	80
280-64693-4	J1V343	76	79
280-64693-5	J1V344	73	79
280-64693-6	J1V345	77	76
280-64693-7	J1V346	72	81
280-64693-8	J1V347	78	80
280-64693-9	J1V348	76	77
280-64693-10	J1V349	77	83
280-64693-11	J1V350	77	79
280-64693-12	J1V351	78	78
280-64693-13	J1V352	79	82
MB 280-261509/1-A		78	76
LCS 280-261509/2-A		77	77
280-64693-13 MS	J1V352 MS	73	81
280-64693-13 MSD	J1V352 MSD	73	82

Surrogate	Acceptance Limits
DCB = Decachlorobiphenyl	59-130
TCX = Tetrachloro-m-xylene	53-128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Method Blank - Batch: 280-261509

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-261509/1-A	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261509	Lab File ID:	01261504.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	01/26/2015 0919	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	01/23/2015 1900			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.7	U	2.7	9.9
Aroclor 1221	7.9	U	7.9	16
Aroclor 1232	2.0	U	2.0	9.9
Aroclor 1242	4.6	U	4.6	9.9
Aroclor 1248	4.6	U	4.6	9.9
Aroclor 1254	2.6	U	2.6	9.9
Aroclor 1260	2.6	U	2.6	9.9

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	78	59 - 130
Tetrachloro-m-xylene	76	53 - 128

Lab Control Sample - Batch: 280-261509

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-261509/2-A	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261509	Lab File ID:	01261505.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.9 g
Analysis Date:	01/26/2015 0942	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	01/23/2015 1900			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	32.4	28.0	87	54 - 132	
Aroclor 1260	32.4	28.6	88	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	77	59 - 130
Tetrachloro-m-xylene	77	53 - 128

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-261509

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-64693-13	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261509	Lab File ID:	01261520.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	01/26/2015 1531			Final Weight/Volume:	5 mL
Prep Date:	01/23/2015 1900			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-64693-13	Analysis Batch:	280-261609	Instrument ID:	SGC_W
Client Matrix:	Solid	Prep Batch:	280-261509	Lab File ID:	01261521.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.6 g
Analysis Date:	01/26/2015 1554			Final Weight/Volume:	5 mL
Prep Date:	01/23/2015 1900			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	89	89	54 - 132	2	26		
Aroclor 1260	92	91	62 - 129	4	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	73	73	59 - 130
Tetrachloro-m-xylene	81	82	53 - 128

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-261509

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-64693-13	Units:	ug/Kg
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	01/26/2015 1531		
Prep Date:	01/23/2015 1900		
Leach Date:	N/A		

MSD Lab Sample ID:	280-64693-13
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	01/26/2015 1554
Prep Date:	01/23/2015 1900
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Aroclor 1016	2.9	U	35.1	34.1	31.0	30.5
Aroclor 1260	2.8	U	35.1	34.1	32.2	30.9

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Method Blank - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-261490/1-A	Analysis Batch:	280-261749	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	01/26/2015 1658	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	0.38	U	0.38	0.60
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Calcium	19.89	B	14.1	50.0
Lead	0.27	U	0.27	0.50
Magnesium	5.58	B	3.7	20.0
Manganese	0.10	U	0.10	1.0
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Method Blank - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-261490/1-A	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	01/27/2015 1406	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.83	B	1.6	5.0
Arsenic	0.66	U	0.66	1.0
Barium	0.181	B	0.076	0.50
Cadmium	0.041	U	0.041	0.20
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	4.42	B	3.8	5.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Sodium	59.0	U	59.0	120

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Lab Control Sample - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-261490/2-A	Analysis Batch:	280-261749	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	01/26/2015 1701	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	50.0	52.23	104	82 - 110	
Beryllium	5.00	5.03	101	84 - 114	
Boron	100	101.2	101	80 - 120	
Calcium	5000	5129	103	82 - 114	
Lead	50.0	50.10	100	86 - 110	
Magnesium	5000	4792	96	90 - 110	
Manganese	50.0	49.31	99	88 - 110	
Selenium	200	209.0	104	83 - 110	
Silicon	1000	102.8	10	10 - 70	
Silver	5.00	5.16	103	87 - 114	
Vanadium	50.0	51.73	103	88 - 110	
Zinc	50.0	49.07	98	76 - 114	

Lab Control Sample - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-261490/2-A	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	01/27/2015 1409	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	196.1	98	82 - 116	
Arsenic	100	98.99	99	85 - 110	
Barium	200	207.4	104	87 - 112	
Cadmium	10.0	9.25	92	87 - 110	
Chromium	20.0	20.32	102	84 - 114	
Cobalt	50.0	50.71	101	87 - 110	
Copper	25.0	24.76	99	88 - 110	
Iron	100	106.1	106	87 - 120	
Molybdenum	100	104.5	105	86 - 110	
Nickel	50.0	50.06	100	87 - 110	
Potassium	5000	5193	104	89 - 110	
Sodium	5000	5286	106	90 - 112	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Matrix Spike - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261749	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.17 g
Analysis Date:	01/26/2015 1711	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Boron	0.96	U	90.0	71.66	80	80 - 120	
Calcium	6080		4500	12600	145	43 - 165	
Magnesium	4010		4500	8495	100	64 - 145	
Manganese	287		45.0	384.7	217	40 - 200	4
Silicon	222		900	403.5	20	20 - 200	
Silver	0.16	U	4.50	3.83	85	75 - 141	
Zinc	43.0		45.0	82.00	87	70 - 200	

Matrix Spike - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.17 g
Analysis Date:	01/27/2015 1419	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	1.9	U	45.0	26.81	60	20 - 200	
Beryllium	0.66	B	4.50	4.91	94	72 - 105	
Cobalt	11.9		45.0	56.87	100	72 - 106	
Copper	16.0		22.5	38.10	98	37 - 187	
Lead	2.2	B	45.0	44.12	93	70 - 200	
Vanadium	73.6		45.0	132.8	131	50 - 169	

Matrix Spike - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.17 g
Analysis Date:	01/27/2015 1504	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	4540		180	6837	1275	50 - 200	4
Arsenic	2.2		90.0	72.67	78	76 - 111	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Matrix Spike - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.17 g
Analysis Date:	01/27/2015 1504	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Barium	42.7		180	218.9	98	52 - 159	
Cadmium	0.10	B	9.00	7.14	78	40 - 130	
Chromium	4.4		18.0	20.48	89	70 - 200	
Iron	24300		90.0	28160	4322	70 - 200	4
Molybdenum	0.25	U	90.0	76.37	85	75 - 103	
Nickel	7.6		45.0	45.47	84	61 - 126	
Potassium	634		4500	4744	91	56 - 172	
Selenium	0.84	U	180	136.1	76	76 - 104	
Sodium	335		4500	4763	98	78 - 111	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261749	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26b012615.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	01/26/2015 1708	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Boron	0.96	U	1.0	NC	30	U
Calcium	6080		6788	11	30	
Magnesium	4010		4281	6	30	
Manganese	287		310.1	8	40	
Silicon	222		293.4	28	40	
Silver	0.16	U	0.17	NC	30	U
Zinc	43.0		46.52	8	40	

Duplicate - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	01/27/2015 1416	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	1.9	U	2.0	NC	40	U
Beryllium	0.66	B	0.769	15	30	B
Cobalt	11.9		12.88	8	30	
Copper	16.0		16.24	2	30	
Lead	2.2	B	2.05	8	40	B
Vanadium	73.6		80.97	9	30	

Duplicate - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	01/27/2015 1501	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Aluminum	4540	5146	12	40	
Arsenic	2.2	1.98	8	30	
Barium	42.7	46.82	9	30	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261490

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261948	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-261490	Lab File ID:	26a012715a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	01/27/2015 1501	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	01/26/2015 0745				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Cadmium	0.10	B	0.119	16	30	B
Chromium	4.4		4.63	5	40	
Iron	24300		26320	8	40	
Molybdenum	0.25	U	0.27	NC	30	U
Nickel	7.6		7.89	4	30	
Potassium	634		693.1	9	40	
Selenium	0.84	U	0.89	NC	30	U
Sodium	335		360.1	7	30	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Method Blank - Batch: 280-261780

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-261780/1-A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	01/28/2015 0842	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-261780

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-261780/2-A	Analysis Batch:	280-262038	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	01/28/2015 0845	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.420	101	87 - 111	

Matrix Spike - Batch: 280-261780

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-262038	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	01/28/2015 0852	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0053	U	0.411	0.433	105	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261780

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-262038	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-261780	Lab File ID:	150128ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.67 g
Analysis Date:	01/28/2015 0849	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	01/27/2015 1635				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0053	U	0.00542	NC	20	B

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Method Blank - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-261710/2-A	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261710	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2024	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/26/2015 1635				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.36	U	0.36	0.75

Method Reporting Limit Check - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-261736/18	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	01/26/2015 1842	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0828	83	50 - 150	B

Lab Control Sample - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-261710/1-A	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261710	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2022	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/26/2015 1635				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	49.2	49.41	100	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Matrix Spike - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261710	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2030	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/26/2015 1635				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.36	U	40.3	40.21	100	90 - 110	

Matrix Spike - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64693-13	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261710	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2110	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/26/2015 1635				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.38	U	42.1	41.53	99	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261710	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2028	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/26/2015 1635				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	0.36	U	0.36	NC	10	U

Duplicate - Batch: 280-261736

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-64693-13	Analysis Batch:	280-261736	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\012615.RST
Dilution:	1.0	Leach Batch:	280-261710	Initial Weight/Volume:	
Analysis Date:	01/26/2015 2108	Units:	mg/Kg	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	01/26/2015 1635				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	0.38	U	0.38	NC	10	U

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Method Blank - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-261707/2-A	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0026.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1942	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/26/2015 1607				

Analyte	Result	Qual	MDL	RL
Nitrate as N-Soluble	0.31	U	0.31	2.5
Nitrite as N-Soluble	0.34	U	0.34	2.5
Orthophosphate as P-Soluble	1.2	U	1.2	5.0

Method Reporting Limit Check - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-261612/3	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0011.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 0926	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.226	113	50 - 150	B
Nitrite as N-Soluble	0.200	0.223	112	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.268	134	50 - 150	B

Lab Control Sample - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-261707/1-A	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0025.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1922	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/26/2015 1607				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	50.0	48.58	97	90 - 110	
Nitrite as N-Soluble	50.0	49.20	98	90 - 110	
Orthophosphate as P-Soluble	50.0	51.08	102	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Matrix Spike - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0029.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 2042	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.83	B	49.9	48.06	95	80 - 120	
Nitrite as N-Soluble	0.34	U	49.9	51.33	103	80 - 120	
Orthophosphate as P-Soluble	1.3	U	49.9	46.24	93	80 - 120	

Matrix Spike - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-13	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0045.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/27/2015 0201	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.71	B	52.1	50.20	95	80 - 120	
Nitrite as N-Soluble	0.36	U	52.1	53.14	102	80 - 120	
Orthophosphate as P-Soluble	1.3	U	52.1	40.41	78	80 - 120	N

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0028.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 2022	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	0.83	B	0.837	0.7	15	B
Nitrite as N-Soluble	0.34	U	0.34	NC	15	U
Orthophosphate as P-Soluble	1.3	U	1.3	NC	15	U

Duplicate - Batch: 280-261612

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-13	Analysis Batch:	280-261612	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0044.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/27/2015 0141	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	0.71	B	0.33	NC	15	U
Nitrite as N-Soluble	0.36	U	0.36	NC	15	U
Orthophosphate as P-Soluble	1.3	U	1.3	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Method Blank - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-261707/2-A	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0026.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1942	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/26/2015 1607				

Analyte	Result	Qual	MDL	RL
Chloride-Soluble	7.32		2.0	5.0
Bromide-Soluble	0.39	U	0.39	2.0
Sulfate-Soluble	1.7	U	1.7	5.0
Fluoride-Soluble	0.82	U	0.82	5.0

Method Reporting Limit Check - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-261613/3	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	0011.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 0926	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	2.50	2.30	92	50 - 150	B
Bromide-Soluble	0.200	0.250	125	50 - 150	
Sulfate-Soluble	2.50	2.48	99	50 - 150	B
Fluoride-Soluble	0.200	0.226	113	50 - 150	B

Lab Control Sample - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-261707/1-A	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0025.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 1922	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	01/26/2015 1607				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1000	945.8	95	90 - 110	
Bromide-Soluble	50.0	49.59	99	90 - 110	
Sulfate-Soluble	1000	954.3	95	90 - 110	
Fluoride-Soluble	50.0	49.90	100	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Matrix Spike - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0029.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 2042	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	7.7		250	207.3	80	80 - 120	
Bromide-Soluble	0.40	U	49.9	48.67	97	80 - 120	
Sulfate-Soluble	7.3		250	213.4	83	80 - 120	
Fluoride-Soluble	1.1	B	49.9	47.63	93	80 - 120	

Matrix Spike - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-13	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0045.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/27/2015 0201	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	8.7		260	217.9	80	80 - 120	
Bromide-Soluble	0.41	U	52.1	50.94	98	80 - 120	
Sulfate-Soluble	6.9		260	222.4	83	80 - 120	
Fluoride-Soluble	1.2	B	52.1	44.28	83	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0028.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/26/2015 2022	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	7.7		7.74	0	10	C
Bromide-Soluble	0.40	U	0.40	NC	10	U
Sulfate-Soluble	7.3		7.32	0.3	10	
Fluoride-Soluble	1.1	B	1.13	0.8	10	B

Duplicate - Batch: 280-261613

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-64693-13	Analysis Batch:	280-261613	Instrument ID:	WC_IonChrom11
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	0044.d
Dilution:	1.0	Leach Batch:	280-261707	Initial Weight/Volume:	5 mL
Analysis Date:	01/27/2015 0141	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				25 uL
Leach Date:	01/26/2015 1607				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	8.7		8.63	0.6	10	C
Bromide-Soluble	0.41	U	0.41	NC	10	U
Sulfate-Soluble	6.9		6.96	0.5	10	
Fluoride-Soluble	1.2	B	1.17	2	10	B

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

Duplicate - Batch: 280-261545

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-64693-1	Analysis Batch:	280-261545	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/24/2015 1307	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	5.0	5.1	2	20	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-261509					
LCS 280-261509/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-261509/1-A	Method Blank	T	Solid	3550C	
280-64693-1	J1V340	T	Solid	3550C	
280-64693-2	J1V341	T	Solid	3550C	
280-64693-3	J1V342	T	Solid	3550C	
280-64693-4	J1V343	T	Solid	3550C	
280-64693-5	J1V344	T	Solid	3550C	
280-64693-6	J1V345	T	Solid	3550C	
280-64693-7	J1V346	T	Solid	3550C	
280-64693-8	J1V347	T	Solid	3550C	
280-64693-9	J1V348	T	Solid	3550C	
280-64693-10	J1V349	T	Solid	3550C	
280-64693-11	J1V350	T	Solid	3550C	
280-64693-12	J1V351	T	Solid	3550C	
280-64693-13	J1V352	T	Solid	3550C	
280-64693-13MS	Matrix Spike	T	Solid	3550C	
280-64693-13MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-261609					
LCS 280-261509/2-A	Lab Control Sample	T	Solid	8082	280-261509
MB 280-261509/1-A	Method Blank	T	Solid	8082	280-261509
280-64693-1	J1V340	T	Solid	8082	280-261509
280-64693-2	J1V341	T	Solid	8082	280-261509
280-64693-3	J1V342	T	Solid	8082	280-261509
280-64693-4	J1V343	T	Solid	8082	280-261509
280-64693-5	J1V344	T	Solid	8082	280-261509
280-64693-6	J1V345	T	Solid	8082	280-261509
280-64693-7	J1V346	T	Solid	8082	280-261509
280-64693-8	J1V347	T	Solid	8082	280-261509
280-64693-9	J1V348	T	Solid	8082	280-261509
280-64693-10	J1V349	T	Solid	8082	280-261509
280-64693-11	J1V350	T	Solid	8082	280-261509
280-64693-12	J1V351	T	Solid	8082	280-261509
280-64693-13	J1V352	T	Solid	8082	280-261509
280-64693-13MS	Matrix Spike	T	Solid	8082	280-261509
280-64693-13MSD	Matrix Spike Duplicate	T	Solid	8082	280-261509

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-261490					
LCS 280-261490/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-261490/1-A	Method Blank	T	Solid	3050B	
280-64693-1	J1V340	T	Solid	3050B	
280-64693-1DU	Duplicate	T	Solid	3050B	
280-64693-1MS	Matrix Spike	T	Solid	3050B	
280-64693-2	J1V341	T	Solid	3050B	
280-64693-3	J1V342	T	Solid	3050B	
280-64693-4	J1V343	T	Solid	3050B	
280-64693-5	J1V344	T	Solid	3050B	
280-64693-6	J1V345	T	Solid	3050B	
280-64693-7	J1V346	T	Solid	3050B	
280-64693-8	J1V347	T	Solid	3050B	
280-64693-9	J1V348	T	Solid	3050B	
280-64693-10	J1V349	T	Solid	3050B	
280-64693-11	J1V350	T	Solid	3050B	
280-64693-12	J1V351	T	Solid	3050B	
280-64693-13	J1V352	T	Solid	3050B	
280-64693-14	J1V353	T	Solid	3050B	
Analysis Batch:280-261749					
LCS 280-261490/2-A	Lab Control Sample	T	Solid	6010B	280-261490
MB 280-261490/1-A	Method Blank	T	Solid	6010B	280-261490
280-64693-1	J1V340	T	Solid	6010B	280-261490
280-64693-1DU	Duplicate	T	Solid	6010B	280-261490
280-64693-1MS	Matrix Spike	T	Solid	6010B	280-261490
280-64693-2	J1V341	T	Solid	6010B	280-261490
280-64693-3	J1V342	T	Solid	6010B	280-261490
280-64693-4	J1V343	T	Solid	6010B	280-261490
280-64693-5	J1V344	T	Solid	6010B	280-261490
280-64693-6	J1V345	T	Solid	6010B	280-261490
280-64693-7	J1V346	T	Solid	6010B	280-261490
280-64693-8	J1V347	T	Solid	6010B	280-261490
280-64693-9	J1V348	T	Solid	6010B	280-261490
280-64693-10	J1V349	T	Solid	6010B	280-261490
280-64693-11	J1V350	T	Solid	6010B	280-261490
280-64693-12	J1V351	T	Solid	6010B	280-261490
280-64693-13	J1V352	T	Solid	6010B	280-261490
280-64693-14	J1V353	T	Solid	6010B	280-261490

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-261780					
LCS 280-261780/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-261780/1-A	Method Blank	T	Solid	7471A	
280-64693-1	J1V340	T	Solid	7471A	
280-64693-1DU	Duplicate	T	Solid	7471A	
280-64693-1MS	Matrix Spike	T	Solid	7471A	
280-64693-2	J1V341	T	Solid	7471A	
280-64693-3	J1V342	T	Solid	7471A	
280-64693-4	J1V343	T	Solid	7471A	
280-64693-5	J1V344	T	Solid	7471A	
280-64693-6	J1V345	T	Solid	7471A	
280-64693-7	J1V346	T	Solid	7471A	
280-64693-8	J1V347	T	Solid	7471A	
280-64693-9	J1V348	T	Solid	7471A	
280-64693-10	J1V349	T	Solid	7471A	
280-64693-11	J1V350	T	Solid	7471A	
280-64693-12	J1V351	T	Solid	7471A	
280-64693-13	J1V352	T	Solid	7471A	
280-64693-14	J1V353	T	Solid	7471A	
Analysis Batch:280-261948					
LCS 280-261490/2-A	Lab Control Sample	T	Solid	6010B	280-261490
MB 280-261490/1-A	Method Blank	T	Solid	6010B	280-261490
280-64693-1	J1V340	T	Solid	6010B	280-261490
280-64693-1DU	Duplicate	T	Solid	6010B	280-261490
280-64693-1MS	Matrix Spike	T	Solid	6010B	280-261490
280-64693-2	J1V341	T	Solid	6010B	280-261490
280-64693-3	J1V342	T	Solid	6010B	280-261490
280-64693-4	J1V343	T	Solid	6010B	280-261490
280-64693-5	J1V344	T	Solid	6010B	280-261490
280-64693-6	J1V345	T	Solid	6010B	280-261490
280-64693-7	J1V346	T	Solid	6010B	280-261490
280-64693-8	J1V347	T	Solid	6010B	280-261490
280-64693-9	J1V348	T	Solid	6010B	280-261490
280-64693-10	J1V349	T	Solid	6010B	280-261490
280-64693-11	J1V350	T	Solid	6010B	280-261490
280-64693-12	J1V351	T	Solid	6010B	280-261490
280-64693-13	J1V352	T	Solid	6010B	280-261490
280-64693-14	J1V353	T	Solid	6010B	280-261490

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-262038					
LCS 280-261780/2-A	Lab Control Sample	T	Solid	7471A	280-261780
MB 280-261780/1-A	Method Blank	T	Solid	7471A	280-261780
280-64693-1	J1V340	T	Solid	7471A	280-261780
280-64693-1DU	Duplicate	T	Solid	7471A	280-261780
280-64693-1MS	Matrix Spike	T	Solid	7471A	280-261780
280-64693-2	J1V341	T	Solid	7471A	280-261780
280-64693-3	J1V342	T	Solid	7471A	280-261780
280-64693-4	J1V343	T	Solid	7471A	280-261780
280-64693-5	J1V344	T	Solid	7471A	280-261780
280-64693-6	J1V345	T	Solid	7471A	280-261780
280-64693-7	J1V346	T	Solid	7471A	280-261780
280-64693-8	J1V347	T	Solid	7471A	280-261780
280-64693-9	J1V348	T	Solid	7471A	280-261780
280-64693-10	J1V349	T	Solid	7471A	280-261780
280-64693-11	J1V350	T	Solid	7471A	280-261780
280-64693-12	J1V351	T	Solid	7471A	280-261780
280-64693-13	J1V352	T	Solid	7471A	280-261780
280-64693-14	J1V353	T	Solid	7471A	280-261780

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-261545					
280-64693-1	J1V340	T	Solid	D-2216	
280-64693-1DU	Duplicate	T	Solid	D-2216	
280-64693-2	J1V341	T	Solid	D-2216	
280-64693-3	J1V342	T	Solid	D-2216	
280-64693-4	J1V343	T	Solid	D-2216	
280-64693-5	J1V344	T	Solid	D-2216	
280-64693-6	J1V345	T	Solid	D-2216	
280-64693-7	J1V346	T	Solid	D-2216	
280-64693-8	J1V347	T	Solid	D-2216	
280-64693-9	J1V348	T	Solid	D-2216	
280-64693-10	J1V349	T	Solid	D-2216	
280-64693-11	J1V350	T	Solid	D-2216	
280-64693-12	J1V351	T	Solid	D-2216	
280-64693-13	J1V352	T	Solid	D-2216	
280-64693-14	J1V353	T	Solid	D-2216	
Analysis Batch:280-261612					
LCS 280-261707/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-261707/2-A	Method Blank	S	Solid	9056M	
280-64693-1	J1V340	S	Solid	9056M	
280-64693-1DU	Duplicate	S	Solid	9056M	
280-64693-1MS	Matrix Spike	S	Solid	9056M	
280-64693-2	J1V341	S	Solid	9056M	
280-64693-3	J1V342	S	Solid	9056M	
280-64693-4	J1V343	S	Solid	9056M	
280-64693-5	J1V344	S	Solid	9056M	
280-64693-6	J1V345	S	Solid	9056M	
280-64693-7	J1V346	S	Solid	9056M	
280-64693-8	J1V347	S	Solid	9056M	
280-64693-9	J1V348	S	Solid	9056M	
280-64693-10	J1V349	S	Solid	9056M	
280-64693-11	J1V350	S	Solid	9056M	
280-64693-12	J1V351	S	Solid	9056M	
280-64693-13	J1V352	S	Solid	9056M	
280-64693-13DU	Duplicate	S	Solid	9056M	
280-64693-13MS	Matrix Spike	S	Solid	9056M	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-261613					
LCS 280-261707/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-261707/2-A	Method Blank	S	Solid	9056M	
280-64693-1	J1V340	S	Solid	9056M	
280-64693-1DU	Duplicate	S	Solid	9056M	
280-64693-1MS	Matrix Spike	S	Solid	9056M	
280-64693-2	J1V341	S	Solid	9056M	
280-64693-3	J1V342	S	Solid	9056M	
280-64693-4	J1V343	S	Solid	9056M	
280-64693-5	J1V344	S	Solid	9056M	
280-64693-6	J1V345	S	Solid	9056M	
280-64693-7	J1V346	S	Solid	9056M	
280-64693-8	J1V347	S	Solid	9056M	
280-64693-9	J1V348	S	Solid	9056M	
280-64693-10	J1V349	S	Solid	9056M	
280-64693-11	J1V350	S	Solid	9056M	
280-64693-12	J1V351	S	Solid	9056M	
280-64693-13	J1V352	S	Solid	9056M	
280-64693-13DU	Duplicate	S	Solid	9056M	
280-64693-13MS	Matrix Spike	S	Solid	9056M	
Prep Batch: 280-261707					
LCS 280-261707/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-261707/2-A	Method Blank	S	Solid	DI Leach	
280-64693-1	J1V340	S	Solid	DI Leach	
280-64693-1DU	Duplicate	S	Solid	DI Leach	
280-64693-1MS	Matrix Spike	S	Solid	DI Leach	
280-64693-2	J1V341	S	Solid	DI Leach	
280-64693-3	J1V342	S	Solid	DI Leach	
280-64693-4	J1V343	S	Solid	DI Leach	
280-64693-5	J1V344	S	Solid	DI Leach	
280-64693-6	J1V345	S	Solid	DI Leach	
280-64693-7	J1V346	S	Solid	DI Leach	
280-64693-8	J1V347	S	Solid	DI Leach	
280-64693-9	J1V348	S	Solid	DI Leach	
280-64693-10	J1V349	S	Solid	DI Leach	
280-64693-11	J1V350	S	Solid	DI Leach	
280-64693-12	J1V351	S	Solid	DI Leach	
280-64693-13	J1V352	S	Solid	DI Leach	
280-64693-13DU	Duplicate	S	Solid	DI Leach	
280-64693-13MS	Matrix Spike	S	Solid	DI Leach	

Client: Washington Closure Hanford

Job Number: 280-64693-1
Sdg Number: JP0897

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-261710					
LCS 280-261710/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-261710/2-A	Method Blank	S	Solid	DI Leach	
280-64693-1	J1V340	S	Solid	DI Leach	
280-64693-1DU	Duplicate	S	Solid	DI Leach	
280-64693-1MS	Matrix Spike	S	Solid	DI Leach	
280-64693-2	J1V341	S	Solid	DI Leach	
280-64693-3	J1V342	S	Solid	DI Leach	
280-64693-4	J1V343	S	Solid	DI Leach	
280-64693-5	J1V344	S	Solid	DI Leach	
280-64693-6	J1V345	S	Solid	DI Leach	
280-64693-7	J1V346	S	Solid	DI Leach	
280-64693-8	J1V347	S	Solid	DI Leach	
280-64693-9	J1V348	S	Solid	DI Leach	
280-64693-10	J1V349	S	Solid	DI Leach	
280-64693-11	J1V350	S	Solid	DI Leach	
280-64693-12	J1V351	S	Solid	DI Leach	
280-64693-13	J1V352	S	Solid	DI Leach	
280-64693-13DU	Duplicate	S	Solid	DI Leach	
280-64693-13MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-261736					
LCS 280-261710/1-A	Lab Control Sample	S	Solid	353.2	
MB 280-261710/2-A	Method Blank	S	Solid	353.2	
280-64693-1	J1V340	S	Solid	353.2	
280-64693-1DU	Duplicate	S	Solid	353.2	
280-64693-1MS	Matrix Spike	S	Solid	353.2	
280-64693-2	J1V341	S	Solid	353.2	
280-64693-3	J1V342	S	Solid	353.2	
280-64693-4	J1V343	S	Solid	353.2	
280-64693-5	J1V344	S	Solid	353.2	
280-64693-6	J1V345	S	Solid	353.2	
280-64693-7	J1V346	S	Solid	353.2	
280-64693-8	J1V347	S	Solid	353.2	
280-64693-9	J1V348	S	Solid	353.2	
280-64693-10	J1V349	S	Solid	353.2	
280-64693-11	J1V350	S	Solid	353.2	
280-64693-12	J1V351	S	Solid	353.2	
280-64693-13	J1V352	S	Solid	353.2	
280-64693-13DU	Duplicate	S	Solid	353.2	
280-64693-13MS	Matrix Spike	S	Solid	353.2	

Report Basis
S = Soluble
T = Total

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-464

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Staging pile area		**SAF No.** RC-075
Ice Chest No. WCH-08-063	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Commercial Carrier \Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131316		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
TestAmerica Richland

POSSIBLE SAMPLE HAZARDS/REMARKS
none

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C									
Type of Container	G/P	aG	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250mL									
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	IC Anions - 9056 Modified; NO2/NO3 - 353.2									

280-64693 Chain of Custody

Sample No.	Matrix	Sample Date	Sample Time										
J1V340	SOIL	01/21/15	1010	X	X	X							
J1V341	SOIL	01/21/15	1016	X	X	X							
J1V342	SOIL	01/21/15	1023	X	X	X							
J1V343	SOIL	01/21/15	1004	X	X	X							
J1V344	SOIL	01/21/15	0957	X	X	X							

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CHAIN OF POSSESSION / Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1027 1-21-15	C. Martinez/C. Martinez	1027 01/21/15
C. Martinez/C. Martinez	1615 01/21/15	C. Bingham Cindy	1615 1-21-15
C. Bingham Cindy	1630 1-21-15	1060 Battelle, fridge #2A	1630 1-21-15
1060 Battelle, fridge #2A	0810 1-22-15	C. Bingham Cindy	0810 1-22-15
C. Bingham Cindy WCH	1-22-15 0830	fed EX	1-22-15 0830
			0930 23Jan15

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	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}

0.11RS10.5 23Jan15
transferred by

RECEIVED BY J. Edmundson/Lincoln DATE 1-22-15

JP0897

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-464

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Staging pile area		**SAF No.** RC-075
Ice Chest No. WCH-08-063	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Commercial Carrier / Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131316		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
TestAmerica Richland

POSSIBLE SAMPLE HAZARDS/REMARKS
none

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C									
Type of Container	G/P	aG	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250mL									
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	IC Anions - 9056 Modified; NO2/NO3 - 353.2									

Sample No.	Matrix	Sample Date	Sample Time										
J1V345	SOIL	01/21/15	0952	X	X	X							
J1V346	SOIL	01/21/15	0945	X	X	X							
J1V347	SOIL	01/21/15	0939	X	X	X							
J1V348	SOIL	01/21/15	0932	X	X	X							
J1V349	SOIL	01/21/15	0913	X	X	X							

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	1027 1-21-15	C. Martinez/C. Martinez	1027 01/21/15
C. Martinez/C. Martinez	1615 01/21/15	C. Bingham	1-21-15 1615
C. Bingham	1-21-15 1630	1060 Battelle, fridge #2A	1630 1-21-15
1060 Battelle, fridge #2A	0810 1-22-15	C. Bingham	1-22-15 0810
C. Bingham WCH	1-22-15 0830	fed Ex	1-22-15 0830
			0930 22Jan15

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	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}

REVIEWED BY T.Edmundson/Vanamal DATE 1-22-15

JP0897

WCH-EE-011

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-075-464

Collector STOWE, QG	**Company Contact** Joan Kessner	**Telephone No.** 375-4688	**Project Coordinator** KESSNER, JH
Price Code 8B	**Data Turnaround** 7 days		
Project Designation 100-D/DR Field Remediation	**Sampling Location** 100-D-85:2, Verification, Staging pile area		**SAF No.** RC-075
Ice Chest No. WCH-08-063	**Field Logbook No.** EL-1662-03	**COA** 01D8522000	**Method of Shipment** Commercial Carrier \ Fed Ex
Shipped To TestAmerica Denver	**Offsite Property No.** A131316		**Bill of Lading/Air Bill No.** See OSPC

Other Labs Shipped To
TestAmerica Richland

POSSIBLE SAMPLE HAZARDS/REMARKS
none

Special Handling and/or Storage
Cooling as required

Preservation	Cool 4C	Cool 4C	Cool 4C									
Type of Container	G/P	aG	G/P									
No. of Container(s)	1	1	1									
Volume	250mL	250mL	250mL									
Sample Analysis	See item (1) in Special Instructions	PCBs - 8082	IC Anions - 9056 Modified; NO2/NO3 - 353.2									

Sample No.	Matrix	Sample Date	Sample Time										
J1V350	SOIL	01/21/15	0919	X	X	X							
J1V351	SOIL	01/21/15	0926	X	X	X							
J1V352	SOIL 01/21/15	01/21/15	0913	X	X	X							
J1V353	SOIL	01/21/15	0907	X	n/A	n/A							

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CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From: Quincy Stowe	Date/Time: 1027 1-21-15	Received By/Stored In: C. Martinez/C. Martinez	Date/Time: 1027 01/21/15
Relinquished By/Removed From: C. Martinez/C. Martinez	Date/Time: 1615 01/21/15	Received By/Stored In: C. Bingham	Date/Time: 1-21-15 1615
Relinquished By/Removed From: C. Bingham	Date/Time: 1-21-15 1630	Received By/Stored In: 1060 Battelle, fridge #2A	Date/Time: 1630 1-21-15
Relinquished By/Removed From: 1060 Battelle, fridge #2A	Date/Time: 0810 1-22-15	Received By/Stored In: C. Bingham	Date/Time: 1-22-15 0810
Relinquished By/Removed From: C. Bingham WCH	Date/Time: 1-22-15 0830	Received By/Stored In: fed EX	Date/Time: 1-22-15 0830
Relinquished By/Removed From:	Date/Time:	Received By/Stored In:	Date/Time: 0930 23 Jan 15
Relinquished By/Removed From:	Date/Time:	Received By/Stored In:	Date/Time:

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	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}

REVIEWED BY T. Edmundson Via email DATE 1-22-15

JP0897

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temp 0.1 IR# 5
CF +0.5 Initals TW

Date: 01/23/15

Project 28002142
Report Due: 1/30/2015
TALs TAT: 5_Day_Rush > D.B. 1-23-15

Sample Check-in List

Date/Time Received: 0930 23Jan15 **GM Screen Result** 19 **microR/hr**

Client: Washington Closure Hanford **SDG #:** JP0897 NA[ ] **SAF #:** RC-075 NA [ ]

Job Number: 104093 **Chain of Custody #** RC-075-464

Shipping Container ID: WCH-08-063 **Air Bill #** 7726 7306 9460

1. Custody Seals on shipping container intact? NA [ ] Yes [X] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [X] No [ ]
3. Chain of Custody record present? NA [ ] Yes [X] No [ ]
4. Cooler Temperature °C: 0.1° (0.6 corr'd) NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [X]
6. Number of samples in shipping container: 14
7. Sample holding times exceeded? NA [ ] Yes [ ] No [X]
8. Samples have:
   X Tape
   X Custody Seals
   X Hazard Labels
   X Appropriate Sample Labels

   #90 w/ permission
9. Samples are:
   X In Good Condition
   ____ Broken
   ____ Leaking
   ____ Have Air Bubbles
   (Only for samples requiring no head space.)
10. Sample pH taken? NA [X] pH<2 [ ] pH>2 [ ] pH>9 [ ] **Amount HNO_3 Added** ____
11. Sample Location, Sample Collector Listed? * Y
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [X]
13. Description of anomalies (include sample numbers): ____

Sample Custodian: Ashley Muniz **Date:** 23Jan15

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ____ by ____ Person Contacted ____

[ ] No action necessary; process as is.

Project Manager Darlene Bandy Date 1-23-15

From: (509) 376-7402
1162 Shipping
US DOE c/o WCH
2355 Stevens Dr

Richland, WA 99354

Origin ID: PSCA

FedEx Express

J1510150114O3uv

Ship Date: 22JAN15
ActWgt: 78.0 LB
CAD: 105266502/INET3610

Delivery Address Bar Code

Ref # 01D8522000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0190
BILL THIRD PARTY

Kae Yoder
TestAmerica
4955 Yarrow St.
A131316
ARVADA, CO 80002

FRI - 23 JAN 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7726 7306 9460

XH WHHA

80002
CO-US
DEN

537J/8F15/EE4B

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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