

**SAF-RC-074**

**100-D/DR Burial Grounds & Remaining**

**Sites – Soil In-Process**

**FINAL DATA PACKAGE**

**COMPLETE COPY OF DATA PACKAGE TO:**

Kathy Wendt

H4-21

KW 1/30/13

INITIAL/DATE

**COMMENTS:**

**SDG J01671**

**SAF RC-074**

Rad only

Chem only

Rad & Chem

Complete

Partial

**Waste Site: 100-D-100**

Analytical Data Package Prepared For  
**Washington Closure Hanford**

Radiochemical Analysis By  
**TestAmerica**

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

Assigned Laboratory Code: TARL  
Data Package Contains 57 Pages

Report No.: 54351

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.
J01671	RC-074	J1R955	J3A170411-6	MXWL02AC	9MXWL020	3021030
		J1R956	J3A170411-7	MXWL22AC	9MXWL220	3021030
		J1R957	J3A170411-8	MXWL42AC	9MXWL420	3021030
		J1R958	J3A170411-9	MXWL52AC	9MXWL520	3021030
		J1R959	J3A170411-10	MXWL82AC	9MXWL820	3021030
		J1R960	J3A170411-1	MXWLR2AC	9MXWLR20	3021030
		J1R961	J3A170411-2	MXWLT2AC	9MXWLT20	3021030
		J1R962	J3A170411-3	MXWLV2AC	9MXWLV20	3021030
		J1R963	J3A170411-4	MXWLW2AC	9MXWLW20	3021030
		J1R964	J3A170411-5	MXWLX2AC	9MXWLX20	3021030
		J1R965	J3A180402-1	MXWVT1AC	9MXWVT10	3018020
		J1R966	J3A180402-2	MXWVV1AC	9MXWVV10	3018020
		J1R967	J3A180402-3	MXWVV1AC	9MXWVV10	3018020
		J1R968	J3A180402-4	MXWVX1AC	9MXWVX10	3018020
		J1R969	J3A180402-5	MXWV01AC	9MXWV010	3018020
		J1R970	J3A180402-6	MXWV11AC	9MXWV110	3018020
		J1R971	J3A180402-7	MXWV21AC	9MXWV210	3018020
		J1R972	J3A180402-8	MXWV31AC	9MXWV310	3018020
		J1R973	J3A180402-9	MXWV41AC	9MXWV410	3018020
		J1R974	J3A180402-10	MXWV51AC	9MXWV510	3018020

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

## Certificate of Analysis

Washington Closure Hanford  
2620 Fermi Avenue  
Richland, WA 99354

January 25, 2013

Attention: Joan Kessner

SAF Number	:	RC-074
Date SDG Closed	:	January 18, 2013
Number of Samples	:	Twenty (20)
Sample Type	:	Soil
SDG Number	:	J01671
Data Deliverable	:	Quick Turn Metals / Summary

### CASE NARRATIVE

#### I. Introduction

Between January 17, 2013 and January 18, 2013, twenty soil samples were received at TestAmerica for analysis. Upon receipt, the samples were assigned the following laboratory ID numbers to correspond with the Washington Closure Hanford (WCH) specific ID;

<u>WCH ID#</u>	<u>TARL ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
J1R955	MXWL0	SOIL	1/17/13
J1R956	MXWL2	SOIL	1/17/13
J1R957	MXWL4	SOIL	1/17/13
J1R958	MXWL5	SOIL	1/17/13
J1R959	MXWL8	SOIL	1/17/13
J1R960	MXWLR	SOIL	1/17/13
J1R961	MXWLT	SOIL	1/17/13
J1R962	MXWLV	SOIL	1/17/13
J1R963	MXWLW	SOIL	1/17/13
J1R964	MXWLX	SOIL	1/17/13
J1R965	MXWVT	SOIL	1/18/13
J1R966	MXWVV	SOIL	1/18/13
J1R967	MXWVW	SOIL	1/18/13
J1R968	MXWVX	SOIL	1/18/13
J1R969	MXWV0	SOIL	1/18/13
J1R970	MXWV1	SOIL	1/18/13
J1R971	MXWV2	SOIL	1/18/13
J1R972	MXWV3	SOIL	1/18/13
J1R973	MXWV4	SOIL	1/18/13
J1R974	MXWV5	SOIL	1/18/13

2800 George Washington Way Richland, WA 99354 tel 509.375.3131 fax 509.375.5590 [www.testamericainc.com](http://www.testamericainc.com)

Washington Closure Hanford  
January 25, 2013

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## 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:

### **ICP Metals**

ICP Metals by method SW-846 6010A

### **Chemical Analysis**

Hexavalent Chromium by EPA method 7196A

## IV. Quality Control

SDG J01671 includes a minimum of one Laboratory Control Samples (LCS), one method (reagent) blank, a duplicate sample, matrix spike sample and a matrix spike duplicate sample. Any exceptions have been noted in the "Comments" section.

Blanks and LCS are reported in mg/L units, other QC and sample results are reported in the same units.

## V. Comments

### **ICP Metals**

#### ICP Metals by method SW-846 6010A

Two batches were analyzed for the samples with the standard metal request list.

#### Batch 3017050:

The LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

#### Batch 3018021:

The LCS, batch blank, samples, sample duplicate, MS, MSD, ICB, ICV, CCB and CCV results are within contractual limits.

### **Chemical Analysis**

#### Hexavalent Chromium by EPA method 7196A

Two batches were analyzed.

#### Batch 3021030:

The samples were reanalyzed due to a data discrepancy in the original batch (3017047). The sample and sample duplicate agreement is outside the acceptance limits. This maybe attributed to the inhomogeniety of the matrix. Except as noted; the LCS, batch blank, samples, sample duplicate (J1R960) and sample matrix spike (J1R960) results are within contractual requirements.

Washington Closure Hanford  
January 25, 2013

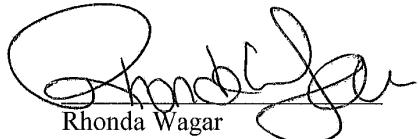
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Batch 3018020:

The LCS, batch blank, samples, sample duplicate (J1R965) and sample matrix spike (J1R965) 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,  $R = \text{constants} * f(x,y,z,...)$ . The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties ( $u_i$ ) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty ( $u_c$ ) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value ( $S/\sqrt{n}$ ), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

## Report Definitions

<b>Action Lev</b>	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.
<b>Batch</b>	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
<b>Bias</b>	Defined by the equation $(Result/Expected)-1$ as defined by ANSI N13.30.
<b>COC No</b>	Chain of Custody Number assigned by the Client or TestAmerica.
<b>Count Error (#s)</b>	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.
<b>Total Uncert (#s) <i>u<sub>c</sub> Combined Uncertainty.</i></b>	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 <i>combined uncertainty</i> . The uncertainty is absolute and in the same units as the result.
<b>(#s), Coverage Factor</b>	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
<b>CRDL (RL)</b>	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)
<b>Lc</b>	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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt/BkgndCntMin}) / SCntMin)) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$ . 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.
<b>Lot-Sample No</b>	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.
<b>MDC MDA</b>	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%. $MDC = (4.65 * \text{Sqr}((\text{BkgndCnt/BkgndCntMin}) / SCntMin) + 2.71 / SCntMin) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol})) * \text{IngrFct}$ . For LSC methods the batch blank is used as a measure of the background variability.
<b>Primary Detector</b>	The instrument identifier associated with the analysis of the sample aliquot.
<b>Ratio U-234/U-238</b>	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.
<b>Rst/MDC</b>	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.
<b>Rst/TotUcert</b>	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.
<b>Report DB No</b>	Sample Identifier used by the report system. The number is based upon the first five digits of the <b>Work Order Number</b> .
<b>RER</b>	The equation Replicate Error Ratio = $(S-D)/[\sqrt{TPUs^2 + TPUs^2}]$ 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 TPUs is the total uncertainty of the duplicate sample.
<b>SDG</b>	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
<b>Sum Rpt Alpha Spec Rst(s)</b>	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.
<b>Work Order</b>	The LIMS software assign test specific identifier.
<b>Yield</b>	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: 25-Jan-13

### TestAmerica TARL

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

**Report No. :** 54351

**SDG No:** J01671

Batch	Client Id Work Order	Parameter	Result +/- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
<b>3018020 7196_CR6</b>									
	<b>J1R965</b>	MXWVT1AC HEXCHROME	3.88E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
		MXWVT1A HEXCHROME	4.09E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	5.3
	<b>J1R966</b>	MXWVV1AC HEXCHROME	3.87E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R967</b>	MXWVV1A HEXCHROME	3.47E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R968</b>	MXWVX1AC HEXCHROME	3.69E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R969</b>	MXWV01AC HEXCHROME	3.31E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R970</b>	MXWV11AC HEXCHROME	3.52E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R971</b>	MXWV21AC HEXCHROME	3.94E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R972</b>	MXWV31AC HEXCHROME	3.49E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R973</b>	MXWV41AC HEXCHROME	4.13E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R974</b>	MXWV51AC HEXCHROME	3.47E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
<b>3021030 7196_CR6</b>									
	<b>J1R955</b>	MXWL02AC HEXCHROME	4.21E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R956</b>	MXWL22AC HEXCHROME	5.03E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R957</b>	MXWL42AC HEXCHROME	6.59E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R958</b>	MXWL52AC HEXCHROME	4.40E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R959</b>	MXWL82AC HEXCHROME	6.32E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R960</b>	MXWLR2AC HEXCHROME	2.08E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
		MXWLR1CH HEXCHROME	3.35E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	46.8
	<b>J1R961</b>	MXWLT2AC HEXCHROME	3.52E-01 +/- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
	<b>J1R962</b>								

TestAmerica      RPD - Relative Percent Difference.

rptSTLRchSaSum  
mary2 V5.2.23  
A2002

**Sample Results Summary****Date:** 25-Jan-13**TestAmerica TARL**

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

**Report No. :** 54351**SDG No:** J01671

Client Id Batch	Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
3021030 7196_CR6									
J1R962	MXWLV2AC	HEXCHROME	4.24E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1R963	MXWLW2A	HEXCHROME	6.40E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1R964	MXWLX2AC	HEXCHROME	5.42E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
No. of Results: 22									

TestAmerica RPD - Relative Percent Difference.

rptSTLRchSaSum  
mary2 V5.2.23  
A2002

**QC Results Summary**  
**TestAmerica TARL**  
 Ordered by Method, Batch No, QC Type,.

Date: 25-Jan-13

Report No. : 54351

SDG No.: J01671

Batch Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
<b>7196_CR6</b>								
3018020 MATRIX SPIKE, J1R965								
MXWVT1AL	HEXCHROME	2.79E+01 +- 0.0E+00		mg/kg	N/A	92%	-0.1	1.55E-01
3018020 LCS,								
MXWV71AC	HEXCHROME	1.81E+01 +- 0.0E+00		mg/kg	N/A	95%	0.0	1.55E-01
3018020 BLANK QC,								
MXWV71AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
<b>7196_CR6</b>								
3021030 MATRIX SPIKE, J1R960								
MXWLR1CG	HEXCHROME	2.78E+01 +- 0.0E+00		mg/kg	N/A	92%	-0.1	1.55E-01
3021030 LCS,								
MXW8R1AC	HEXCHROME	1.78E+01 +- 0.0E+00		mg/kg	N/A	94%	-0.1	1.55E-01
3021030 BLANK QC,								
MXW8R1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
No. of Results:	6							

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TestAmerica      Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 rptSTLRchQcSum      U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda/Mdl, Total Uncert, CRDL, RDL or  
 mary V5.2.23      not identified by gamma scan software.  
 A2002

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A170411-6  
 Client Sample ID: J1R955

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021030	7196_CR6	Work Order:	MXVWL02AC				Report DB ID: 9MXVWL020				
HEXCHROME	4.21E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.7)	1/22/13 12:05 p	2.5013	N/A	g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-7  
**Client Sample ID:** J1R956

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-431

Parameter	Result	Count	Total	MDL,	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Error (2 s)	Action Lev	Lc	CRDL(RL)	Rst/TotUncrt	Prep Date	Size	Size	Detector
Batch: 3021030	7196_CR6		Work Order: MXWL22AC			Report DB ID: 9MXWL220					
HEXCHROME	5.03E-01	0.0E+00	1.55E-01	mg/kg	N/A	(3.2)	1/22/13 12:05 p		2.506		g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A170411-8  
 Client Sample ID: J1R957

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021030	7196_CR6	Work Order: MXWL42AC	Report DB ID: 9MXWL420								
HEXCHROME	6.59E-01	0.0E+00	1.55E-01	mg/kg	N/A	(4.3)	1/22/13 12:05 p		2.5014	g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-9  
**Client Sample ID:** J1R958

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-431

**Collection Date:** 1/16/2013 2:22:00 PM  
**Received Date:** 1/17/2013 8:30:00 AM  
**Matrix:** SOIL  
**Ordered by Client Sample ID, Batch No.**

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021030	7196_CR6	Work Order: MXWL52AC	Report DB ID: 9MXWL520								
HEXCHROME	4.40E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.8)	1/22/13 12:05 p	2.5045		g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-10  
**Client Sample ID:** J1R959

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-431

**Collection Date:** 1/16/2013 2:26:00 PM  
**Received Date:** 1/17/2013 8:30:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL,	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Error (2 s)	Action Lev	Lc	CRDL(RL)	Rst/TotUncert	Prep Date	Size	Size	Detector
Batch: 3021030	7196 CR6		Work Order: MXWL82AC			Report DB ID: 9MXWL820					
HEXCHROME	6.32E-01	0.0E+00	1.55E-01	mg/kg	N/A	(4.1)	1/22/13 12:05 p		2.5077		
					1.55E-01	N/A					g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-1  
**Client Sample ID:** J1R960

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-432

**Collection Date:** 1/16/2013 2:29:00 PM  
**Received Date:** 1/17/2013 8:30:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021030	7196_CR6	Work Order: MXWLR2AC	Report DB ID: 9MXWLR20								
HEXCHROME	2.08E-01	0.0E+00	1.55E-01	mg/kg	N/A	(1.3)	1/22/13 12:05 p	2.5081			g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-2  
**Client Sample ID:** J1R961

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-432

Collection Date: 1/16/2013 2:43:00 PM  
Received Date: 1/17/2013 8:30:00 AM  
Matrix: SOIL

Parameter	Result	Count	Total	MDL,	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Error (2 s)	Action Lev	Lc	CRDL(RL)	Rst/TotUncrt	Prep Date	Size	Size	Detector
Batch: 3021030	7196_CR6	Work Order: MXWLT2AC	Report DB ID: 9MXWLT20								
HEXCHROME	3.52E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.3)	1/22/13 12:05 p		2.5051		g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-3  
**Client Sample ID:** J1R962

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-432

**Collection Date:** 1/16/2013 2:46:00 PM  
**Received Date:** 1/17/2013 8:30:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL,	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Uncert(2 s)	Action Lev	Lc	CRDL(RL)	Rst/TotUcert	Prep Date	Size	Size	Detector
Batch: 3021030	7196 CR6		Work Order: MXWLV2AC			Report DB ID: 9MXWLV20					
HEXCHROME	4.24E-01	0.0E+00	1.55E-01	mg/kg		N/A	(2.7)	1/22/13 12:05 p		2.50E4	g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-4  
**Client Sample ID:** J1R963

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-432

**Collection Date:** 1/16/2013 2:49:00 PM  
**Received Date:** 1/17/2013 8:30:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL,	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Uncert(2 s)	Action Lev	Lc	CRDL(RL)	Rst/TotUcert	Prep Date	Size	Size	Detector
Batch: 3021030	7196 CR6		Work Order: MXWLVW24C		Report DB ID: 9MXWLVW20						
HEXCROME	6.40E-01	0.0E+00	1.55E-01	mg/kg	N/A	(4.1)	1/22/13 12:05 p		2.5068		g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-5  
**Client Sample ID:** J1R964

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-432

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021030	7196 CR6	Work Order: MXWLX2AC	Report DB ID: 9MXWLX20								
HEXCROME	5.42E-01	0.0E+00	1.55E-01 mg/kg	N/A	(3.5)	N/A	1/22/13 12:05 p	2.50658		g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-1  
**Client Sample ID:** J1R965

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-433

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196_CR6	Work Order: MXWV/T1AC	Report DB ID: 9MXWV/T10								
HEXCHROME	3.88E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.5)	1/18/13 11:30 a	2.5051			

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-2  
**Client Sample ID:** J1R966

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-433

**Collection Date:** 1/17/2013 2:19:00 PM  
**Received Date:** 1/18/2013 8:27:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196 CR6	Work Order: MXWVV1AC	Report DB ID: 9MXWVV10								
HEXCHROME	3.87E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.5)	1.55E-01	1/18/13 11:30 a	2.5108	g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-3  
**Client Sample ID:** J1R967

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-433

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196 CR6	Work Order: MXVVVV1AC	Report DB ID: 9MXVVVV10								
HEXCHROME	3.47E-01	0.0E+00	1.55E-01 mg/kg	1.55E-01	N/A	(2.2)	1.55E-01	1/18/13 11:30 a	2.5149	g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-4  
**Client Sample ID:** J1R968

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-433

**Collection Date:** 1/17/2013 2:25:00 PM  
**Received Date:** 1/18/2013 8:27:00 AM  
**Matrix:** SOIL

Parameter	Result	Qual	Count	Total	MDL,	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
			Error (2 s)	Uncert(2 s)	Action Lev.	Lc	CRDL(RL)	Rst/TotUncrt	Prep Date	Size	Size	Detector
Batch: 3018020	7196_CR6			Work Order: MXWVX1AC			Report DB ID: 9MXWVX10					
HEXCHROME	3.69E-01			0.0E+00	1.55E-01	mg/kg	N/A	(2.4)	1/18/13 11:30 a	2.5164		

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-5  
**Client Sample ID:** J1R969

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-433

Parameter	Result	Count	Total	MDL, Rpt Unit, Lc	Action Lev	Rst/MDL, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196_CR6	Work Order: MXWV01AC	Report DB ID: 9MXWV010							
HEXCHROME	3.31E-01	0.0E+00	1.55E-01 mg/kg	N/A	(2.1)	1.55E-01	N/A	1/18/13 11:30 a	2.5041	g

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-6  
**Client Sample ID:** J1R970

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-434

**Collection Date:** 1/17/2013 2:33:00 PM  
**Received Date:** 1/18/2013 8:27:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196_CR6	Work Order: MXWV11AC	Report DB ID: 9MXWV110								
HEXCHROME	3.52E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.3)	1.55E-01	1/18/13 11:30 a	2.5088	g	N/A

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-7  
**Client Sample ID:** J1R971

**SDG:** J01671  
**Report No.:** 54351  
**COC No.:** RC-074-434

**Collection Date:** 1/17/2013 2:45:00 PM  
**Received Date:** 1/18/2013 8:27:00 AM  
**Matrix:** SOIL

Parameter	Result	Qual	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector	Ordered by Client Sample ID, Batch No.
													Report
Batch: 3018020	7196_CR6			MXWV21AC									
HEXCHROME	3.94E-01	0.0E+00	1.55E-01	mg/kg		N/A	(2.5)	1.55E-01	N/A	1/18/13 11:30 a	2.4988	g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-8  
**Client Sample ID:** J1R972

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-434

**Collection Date:** 1/17/2013 2:48:00 PM  
**Received Date:** 1/18/2013 8:27:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Error (2 s)	Lc	CRDL(RL)	Rst/TotUncert	Prep Date	Size	Size	Detector
Batch: 3018020	7196	CR6	Work Order: MXWV31AC		Report DB ID: 9MXWV310					
HEXCHROME		3.49E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.3)	1/18/13 11:30 a	2.5088	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-9  
**Client Sample ID:** J1R973

**SDG:** J01671  
**Report No. :** 54351  
**COC No. :** RC-074-434

**Collection Date:** 1/17/2013 2:52:00 PM  
**Received Date:** 1/18/2013 8:27:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196 CR6	Work Order: MXWV41AC	Report DB ID: 9MXWV410								
HEXCHROME	4.13E-01	0.0E+00	1.55E-01 mg/kg	N/A	(2.7)	1.55E-01	N/A	1/18/13 11:30 a	2.5151	g	

No. of Results: 1      Comments:

**FORM I**  
**SAMPLE RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A180402-10  
 Client Sample ID: J1R974

SDG: J01671

Report No.: 54351

COC No.: RC-074-434

Collection Date: 1/17/2013 2:55:00 PM

Received Date: 1/18/2013 8:27:00 AM

Matrix: SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196_CR6	Work Order:	MXWV51AC				Report DB ID: 9MXWV510				
HEXCHROME	3.47E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.2)	1/18/13 11:30 a	2.5119			g

No. of Results: 1      Comments:

**FORM II**

Date: 25-Jan-13

**DUPLICATE RESULTS**

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A170411-1  
**Client Sample ID:** J1R960

Parameter	Result, Orig Rst	Count	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Rst/MDL, Rst/Tot/Ucert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021030	7196_CR6	Work Order: MXWLR1CH		Report DB ID: MXWLR2ER		Orig Sa DB ID: 9MXWLR20				
HEXCHROME	3.35E-01 2.08E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.2) N/A	1/22/13 12:05 p	2.4992 9		
RPD	46.8		1.55E-01							

No. of Results: 1      Comments:

TestAmerica      RPD - Relative Percent Difference.  
 rptSTLRchDupV5.      MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.  
 2.23 A2002

**FORM II**

Date: 25-Jan-13

**DUPLICATE RESULTS**

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A180402-1  
**Client Sample ID:** J1R965

Parameter	Result, Orig Rst	Count	Error (2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196_CRM6				Work Order: MXWVVT1AM	Report DB ID: MXWVVT1IER	Orig Sa DB ID: 9MXWVVT10				
HEXCHROME	4.09E-01	0.0E+00	1.55E-01	1.55E-01	mg/kg	N/A	(2.6)	1/18/13 11:30 a	2.5028	g	
	3.88E-01	RPD 5.3		1.55E-01		N/A					

No. of Results: 1      Comments:

**FORM II**  
**BLANK RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Matrix: SOIL

Parameter	Result	Qual	Count	Total	MDL,	Rpt Unit, CRDL	Rst/MDL, Yield	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3018020	7196_CR6		Work Order:	MXWV71AA		Report DB ID:	MXWV71AB				
HEXCHROME	1.55E-01	U	0.0E+00	1.55E-01	mg/kg	N/A	1.	1/18/13 11:30 a			2.5
				1.55E-01		N/A					g
Batch: 3021030	7196_CR6		Work Order:	MXW8R1AA		Report DB ID:	MXW8R1AB				
HEXCHROME	1.55E-01	U	0.0E+00	1.55E-01	mg/kg	N/A	1.	1/22/13 12:05 p			2.5
				3.50E-01		N/A					g

No. of Results: 2      Comments:

**FORM II**  
**LCS RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Matrix: SOIL

SDG: J01671  
 Report No. : 54351

Parameter	Result	Count	Total	Report Unit	Yield	Expected	Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 3018020 HEXCHROME	7196_CR6 1.81E+01	0.0E+00	1.55E-01	mg/kg	N/A	1.90E+01	Report DB ID: MXWV7IAS	95%	1/18/13 11:30 a	2.5	
Batch: 3021030 HEXCHROME	7196_CR6 1.78E+01	0.0E+00	1.55E-01	mg/kg	N/A	1.90E+01	Report DB ID: MXW8R1AS	94%	1/22/13 12:05 p	2.5	
No. of Results: 2	Comments:				80	120	Rec Limits: 80 120	0.0		9	

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 rptSLRchl.cs  
 V5.2.23 A2002

**FORM II**  
**MATRIX SPIKE RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A170411-1, J1R960

SDG: J01671  
 Report No. : 54351

Parameter	SpikerResult, Orig Rst	Count	Total	Rpt Unit, CRDL	Rec- covery	Expected, Uncert	Aliquot Size	Analy Method, Primary Detector
Batch: 3021030	Work Order: MXWLR1CG	Report DB ID: MXWLR2CW	Report DB ID: MXWLR20	Orig Sa DB ID: N/A	91.91%	3.03E+01	1/22/13 12:05 p	7196_CR6
HEXCHROME	2.78E+01	0.0E+00	1.55E-01 mg/Kg	N/A	91.91%	3.03E+01	2.5042 g	
	2.08E-01							

Number of Results: 1

Comments:

TestAmerica      RER - Replicate Error Ratio =  $(S-D)/[\sqrt{sq(TPUs)+sq(TPUs)}]$  as defined by ICPT BOA.  
 rpSTLRchMs      Bias -  $(Result/Expected)-1$  as defined by ANSI N13.30.  
 V5.2.23 A2002

**FORM II**  
**MATRIX SPIKE RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A180402-1, J1R965

SDG: J01671

Report No. : 54351

Parameter	SpikeResult, Orig Rst	Count	Total	Rpt Unit, CRDL	Rec- over	Expected, Uncert	Aliquot Size	Analy Method, Primary Detector
Batch: 3018020	Work Order: MXWVT1AL	Report DB ID: MXWVT1CW	Orig Sa DB ID: 9MXWVT10					
HEXCHROME	2.79E+01	0.0E+00	1.55E-01 mg/kg	N/A	92.44%	3.02E+01	2.5171	7196_CR6
	3.88E+01						g	

Number of Results: 1

Comments:

TestAmerica      RER - Replicate Error Ratio =  $(S-D)/[\sqrt{(sq(TPU) + sq(TPD))}]$  as defined by ICPT BOA.  
 rptSLRchMs      Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 V5.2.23 A2002

Client_id	Result_h	Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits	Reporting_Limits_S	Analyzer_1s	Analyze_Decision_Level	LCSRcode	AddAnalysis_date	Batch_nbr	Test_MeLab_Sample_id	
J1R955	CS	7440-32-4	Ag	-3.59E-01	U	UG/G	9.87E+00	9.87E+00	4.50E-01	0.2533 G	5.67E-01	1/17/2013 21:55	3017050 46DQ	MXWLW101AA	
J1R955	SOIL	CS	7440-39-3	As	2.11E+00	U	UG/G	9.87E+00	9.87E+00	6.70E-01	0.2533 G	5.51E-01	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.93E+01	U	UG/G	9.87E+00	9.87E+00	1.97E+00	0.2533 G	2.81E+00	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-41-7	Beryllium	2.42E+01	U	UG/G	9.87E+00	9.87E+00	1.20E+02	0.2533 G	1.02E-02	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-42-9	Cadmium	1.53E+01	U	UG/G	9.87E+00	9.87E+00	9.50E-02	0.2533 G	7.82E-02	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	7.51E+00	U	UG/G	9.87E+00	9.87E+00	4.10E-01	0.2533 G	3.36E-01	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Lead	3.65E+00	U	UG/G	9.87E+00	9.87E+00	4.70E-01	0.2533 G	3.91E-01	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7782-49-2	Se	8.70E+01	U	UG/G	9.87E+00	9.87E+00	3.90E-01	0.2533 G	3.24E-01	1/17/2013 21:55	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-22-4	Ag	-2.95E+01	U	UG/G	9.68E+00	9.68E+00	2.30E-01	0.2583 G	1.98E-01	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	As	1.38E+00	U	UG/G	9.68E+00	9.68E+00	6.10E-01	0.2583 G	5.03E-01	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.77E+01	U	UG/G	9.68E+00	9.68E+00	2.50E+00	0.2583 G	2.04E+00	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-41-7	Beryllium	2.36E+01	U	UG/G	9.68E+00	9.68E+00	2.30E+02	0.2583 G	1.86E-02	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-45-9	Cadmium	1.67E+01	U	UG/G	9.68E+00	9.68E+00	7.10E-02	0.2583 G	5.68E-01	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	1.08E+01	U	UG/G	9.68E+00	9.68E+00	4.40E-01	0.2583 G	3.56E-01	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Lead	3.87E+00	U	UG/G	9.68E+00	9.68E+00	8.20E+00	0.2583 G	6.74E-02	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7782-49-2	Se	1.05E+00	U	UG/G	9.68E+00	9.68E+00	3.10E-01	0.2583 G	2.54E-02	1/17/2013 21:59	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-22-4	Ag	-2.76E+01	U	UG/G	9.78E+00	9.78E+00	3.80E+00	0.2583 G	3.13E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-35-2	As	1.50E+00	U	UG/G	9.78E+00	9.78E+00	1.70E+01	0.2583 G	1.14E+00	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.83E+01	U	UG/G	9.68E+00	9.68E+00	1.40E+00	0.2583 G	9.56E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-41-7	Beryllium	2.49E+01	U	UG/G	9.78E+00	9.78E+00	8.90E-03	0.2583 G	7.30E-08	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-45-9	Cadmium	1.79E+01	U	UG/G	9.68E+00	9.68E+00	7.60E+00	0.2583 G	4.84E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	1.02E+01	U	UG/G	9.78E+00	9.78E+00	2.30E+01	0.2583 G	1.39E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Lead	3.99E+00	U	UG/G	9.78E+00	9.78E+00	9.78E+00	0.2583 G	5.42E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7782-49-2	Se	5.74E+01	U	UG/G	9.78E+00	9.78E+00	1.50E+01	0.2583 G	1.42E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-22-4	As	-2.35E+01	U	UG/G	9.66E+00	9.66E+00	1.20E+01	0.2583 G	1.42E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-38-2	As	1.12E+00	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	2.25E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.17E+01	U	UG/G	9.66E+00	9.66E+00	9.92E+00	0.2583 G	6.23E-01	1/17/2013 22:03	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-41-7	Beryllium	2.49E+01	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	4.42E-03	1/17/2013 22:07	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-43-9	Cadmium	1.88E+01	U	UG/G	9.53E+00	9.53E+00	1.92E+00	0.2583 G	5.60E-03	1/17/2013 22:07	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	8.38E+00	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	1.66E-01	1/17/2013 22:07	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Lead	5.40E+00	U	UG/G	9.66E+00	9.66E+00	1.50E+01	0.2583 G	1.24E-01	1/17/2013 22:07	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7782-49-2	Se	8.91E+01	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	4.33E-01	1/17/2013 22:07	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-22-4	Ag	-2.55E+01	U	UG/G	9.92E+00	9.92E+00	3.70E+02	0.2583 G	3.01E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-38-2	As	1.23E+00	U	UG/G	9.92E+00	9.92E+00	2.70E+01	0.2583 G	2.26E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.88E+01	U	UG/G	9.53E+00	9.53E+00	1.98E+00	0.2583 G	4.58E-03	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Beryllium	2.31E+01	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	1.42E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Cadmium	8.38E+00	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	4.42E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	1.59E+01	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	1.42E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Lead	7.70E+00	U	UG/G	9.66E+00	9.66E+00	9.66E+00	0.2583 G	1.42E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Se	3.30E+00	U	UG/G	9.92E+00	9.92E+00	9.92E+00	0.2583 G	1.42E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7782-49-2	Se	1.05E+00	U	UG/G	9.92E+00	9.92E+00	8.70E+01	0.2583 G	7.16E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-22-4	Ag	-2.47E+01	U	UG/G	9.96E+00	9.96E+00	2.90E+01	0.2583 G	2.41E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-38-2	As	1.26E+00	U	UG/G	9.96E+00	9.96E+00	1.10E+00	0.2583 G	9.15E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.07E+01	U	UG/G	9.96E+00	9.96E+00	1.98E+00	0.2583 G	2.52E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-41-7	Beryllium	2.18E+01	U	UG/G	9.96E+00	9.96E+00	1.80E+01	0.2583 G	1.52E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-43-9	Cadmium	1.74E+01	U	UG/G	9.96E+00	9.96E+00	4.50E+00	0.2583 G	4.59E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	8.70E+00	U	UG/G	9.96E+00	9.96E+00	9.96E+00	0.2583 G	2.71E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Lead	3.24E+00	U	UG/G	9.96E+00	9.96E+00	9.96E+00	0.2583 G	1.42E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7782-49-2	As	-3.27E+01	U	UG/G	9.95E+00	9.95E+00	2.40E+02	0.2583 G	2.23E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-38-2	Ag	1.79E+00	U	UG/G	9.95E+00	9.95E+00	8.90E+01	0.2583 G	2.01E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-39-3	Ba	5.67E+01	U	UG/G	9.95E+00	9.95E+00	3.30E+01	0.2583 G	7.37E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-41-7	Beryllium	2.50E+01	U	UG/G	9.95E+00	9.95E+00	9.95E+00	0.2583 G	5.92E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-43-9	Cadmium	2.14E+01	U	UG/G	9.95E+00	9.95E+00	1.70E+01	0.2583 G	1.44E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	6.71E+00	U	UG/G	9.95E+00	9.95E+00	9.95E+00	0.2583 G	1.16E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-43-9	Cadmium	1.83E+01	U	UG/G	9.95E+00	9.95E+00	1.28E+01	0.2583 G	3.29E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-47-3	Chromium	9.55E+00	U	UG/G	9.95E+00	9.95E+00	3.00E-01	0.2583 G	3.52E-02	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7439-92-1	Lead	9.85E-01	U	UG/G	9.95E+00	9.95E+00	9.95E+00	0.2583 G	5.65E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS	7440-38-2	Ag	1.43E+00	U	UG/G	9.95E+00	9.95E+00	9.95E+00	0.2583 G	1.20E-01	1/17/2013 22:11	3017050 46DQ	MXWLW101AA
J1R955	SOIL	CS													

Client_id	Result_t[Cas_nbr]	Matrix	Parameter	Result	Qualifier	Units	Reporting_Limits	Reporting_Units	Uncertainty	Analyzed	Decision_level	LCSReco_AddeAnalysis	date_time	Batch_nbr	Test_MeLab_sample_id	
JJR963	CS	7440-41-7	Beryllium	2.51E-01	UGIG		9.94E-02	2.20E-02	0.2514	G	1.80E-02		1/17/2013 21:47	3017050 4BDQ	MXWLW1AA	
JJR963	SOIL	7440-42-0	Cadmium	2.00E-01	U	UGIG	1.98E+00	5.30E+02	1.2514	G	4.38E-02		1/17/2013 21:47	3017050 4BDQ	MXWLW1AA	
JJR963	SOIL	7440-47-3	Chromium	1.23E+01	UGIG		9.94E+00	9.94E+00	1.00E+00	0.2514	G	8.50E-01		1/17/2013 21:47	3017050 4BDQ	MXWLW1AA
JJR963	SOIL	7439-92-1	Lead	3.15E+00	U	UGIG	9.94E+00	9.94E+00	4.60E+01	0.2514	G	3.81E+00		1/17/2013 21:47	3017050 4BDQ	MXWLW1AA
JJR963	SOIL	7782-49-2	Se	1.15E+00	U	UGIG	9.94E+00	9.94E+00	1.40E+00	0.2514	G	1.12E+00		1/17/2013 21:47	3017050 4BDQ	MXWLW1AA
JJR964	SOIL	7440-22-4	Beryllium	Ag	-3.71E-01	U	UGIG	9.92E+00	9.92E+00	2.70E-01	0.252 G	2.21E-01		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA
JJR964	SOIL	7440-38-2	As	1.01E+00	U	UGIG	9.92E+00	9.92E+00	6.90E-01	0.252 G	5.68E-01		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-39-3	Ba	5.43E+01	UGIG		1.98E+00	1.98E+00	1.80E+00	0.252 G	1.49E+00		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-41-7	Beryllium	2.35E+01	UGIG		9.92E+02	9.92E+02	1.30E-02	0.252 G	1.05E-02		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-43-9	Cadmium	1.89E+01	UGIG		1.98E+00	1.98E+00	4.60E-02	0.252 G	3.80E-02		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-47-3	Chromium	6.08E-01	UGIG		9.92E+00	9.92E+00	2.90E-01	0.252 G	2.38E-02		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7439-92-1	Lead	3.23E+00	U	UGIG	9.92E+00	9.92E+00	4.50E-01	0.252 G	3.73E-01		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7782-49-2	Se	8.10E-01	U	UGIG	9.92E+00	9.92E+00	4.00E-01	0.252 G	3.33E-01		1/17/2013 21:51	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-22-4	Ag	-1.27E-03	U	MGL	5.00E-02	5.00E-02	7.90E-04	0.2525 L	6.46E-04		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7782-49-2	As	-2.00E-03	U	MGL	5.00E-02	5.00E-02	7.10E-03	0.2525 L	1.76E-03		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-39-3	Ba	5.07E-07	U	MGL	1.00E-02	1.00E-02	1.10E-05	0.2525 L	9.04E-06		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-41-7	Beryllium	3.59E-05	U	MGL	5.00E-04	5.00E-04	8.60E-05	0.2525 L	7.11E-05		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-43-9	Cadmium	1.84E-04	U	MGL	1.00E-02	1.00E-02	1.60E-04	0.2525 L	1.31E-04		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-47-3	Chromium	1.13E-03	U	MGL	5.00E-02	5.00E-02	1.60E-02	0.2525 L	1.30E-03		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7439-92-1	Lead	-7.02E-04	U	MGL	5.00E-02	5.00E-02	3.00E-03	0.2525 L	2.49E-03		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7782-49-2	Se	1.05E-03	U	MGL	5.00E-02	5.00E-02	6.30E-03	0.2525 L	5.22E-03		1/17/2013 20:55	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-22-4	Ag	9.28E-01	UGIG		5.00E-02	5.00E-02	3.50E-02	0.2607 L	2.84E-02	1	1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-38-2	As	9.02E-01	UGIG		5.00E-02	5.00E-02	1.30E-02	0.2607 L	1.08E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-39-3	Ba	9.69E-01	UGIG		1.00E-02	1.00E-02	1.30E-02	0.2607 L	1.07E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-41-7	Beryllium	9.30E-01	UGIG		5.00E-04	5.00E-04	4.40E-02	0.2607 L	3.64E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-47-3	Cadmium	8.78E-01	UGIG		5.00E-02	5.00E-02	1.50E-02	0.2607 L	1.23E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-47-3	Chromium	9.09E-01	UGIG		5.00E-02	5.00E-02	4.60E-02	0.2607 L	3.78E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7459-92-1	Lead	9.04E-01	UGIG		5.00E-02	5.00E-02	1.10E-02	0.2607 L	9.19E-03		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7782-49-2	Se	8.41E-01	UGIG		5.00E-02	5.00E-02	1.80E-02	0.2607 L	1.49E-01		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-22-4	Ag	-1.40E-01	U	MGL	1.00E-02	1.00E-02	1.90E-02	0.2607 L	3.15E-01		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-38-2	As	5.33E-01	UGIG		5.00E-04	5.00E-04	4.40E-02	0.2607 L	3.64E-01		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-41-7	Beryllium	2.30E-01	UGIG		5.00E-02	5.00E-02	1.10E-02	0.2607 L	2.01E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-47-3	Cadmium	2.02E-01	UGIG		5.00E-02	5.00E-02	7.00E-02	0.2607 L	8.67E-03		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7440-47-3	Chromium	7.37E-01	UGIG		5.00E-02	5.00E-02	6.00E-02	0.2607 L	4.94E-02		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	SOIL	7459-92-1	Lead	3.14E+00	UGIG		5.00E-02	5.00E-02	9.90E-02	0.2607 L	2.43E-01		1/17/2013 22:42	3017050 4BDQ	MXWLW1AA	
JJR964	DUP	7440-22-4	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	9.90E-00	0.2526 G	1.32E-01		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-38-2	SOIL	7440-41-7	Beryllium	U	UGIG	9.90E-01	9.90E-01	1.98E-00	0.2526 G	2.01E-02		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-43-9	SOIL	7440-47-3	Cadmium	U	UGIG	9.90E-01	9.90E-01	1.00E-02	0.2526 G	8.67E-03		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Chromium	U	UGIG	9.90E-01	9.90E-01	9.00E-00	0.2526 G	5.75E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	3.00E-01	0.2526 G	2.43E-01		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	3.10E-01	0.2526 G	2.57E-01		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Beryllium	U	UGIG	9.90E-01	9.90E-01	7.70E+00	0.2526 G	5.02E-01		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	3.50E+00	0.2527 L	2.87E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	1.97E+00	0.2527 L	4.56E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Beryllium	U	UGIG	9.90E-01	9.90E-01	3.30E+00	0.2527 L	2.71E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	9.58E+00	0.2527 L	3.94E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	3.70E+00	0.2527 L	3.08E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Cadmium	U	UGIG	9.90E-01	9.90E-01	9.73E+00	0.2527 L	6.68E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	3.50E+00	0.2527 L	2.87E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	9.73E+00	0.2527 L	4.56E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Beryllium	U	UGIG	9.90E-01	9.90E-01	3.30E+00	0.2527 L	2.71E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	9.58E+00	0.2527 L	3.94E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	3.70E+00	0.2527 L	3.08E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Beryllium	U	UGIG	9.90E-01	9.90E-01	9.73E+00	0.2527 L	6.68E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	3.50E+00	0.2527 L	2.87E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	9.73E+00	0.2527 L	4.56E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Cadmium	U	UGIG	9.90E-01	9.90E-01	3.30E+00	0.2527 L	2.71E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7459-92-1	Lead	U	UGIG	9.90E-01	9.90E-01	9.58E+00	0.2527 L	3.94E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7782-49-2	Se	U	UGIG	9.90E-01	9.90E-01	3.70E+00	0.2527 L	3.08E+00		1/17/2013 21:21	3017050 4BDQ	MXWLW1AA
JJR960	DUP	7440-47-3	SOIL	7440-47-3	Beryllium	U	UGIG	9.90E-01	9.90E-01	9.73E+00	0.2527 L	6.68E+00		1/		

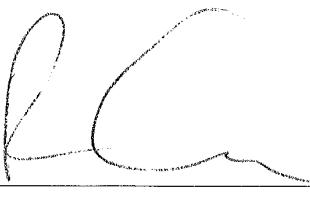


Matrix	Result	Sample_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits	Reporting_Limits	Uncertainty_is	Analyzed	se	Decision_Level	LCSRec	Added	Analysis date	Batch_nbr	Test	M_Lab	Sample_id
SOIL	CS	7440-43-9	Beryllium	2.07E-01	UG/G		9.35E-02	9.35E-02	1.10E-02	0.2538	G	3.86E-03			1/19/2013 18:35	3018021	46DQ	MXWV4/1AA	
SOIL	CS	7440-43-9	Cadmium	1.49E-01	U/G		1.97E+00	1.97E+00	3.00E-02	0.2538	G	2.50E-02			1/19/2013 18:30	3018021	46DQ	MXWV4/1AA	
SOIL	CS	7440-47-3	Chromium	7.55E+00	U/G		9.85E+00	9.85E+00	1.50E-01	0.2538	G	1.21E-01			1/19/2013 18:30	3018021	46DQ	MXWV4/1AA	
SOIL	CS	7439-32-1	Lead	2.89E+00	U/G		9.85E+00	9.85E+00	7.90E-02	0.2538	G	6.48E-02			1/19/2013 18:30	3018021	46DQ	MXWV4/1AA	
SOIL	CS	7782-49-2	Se	-6.13E-01	U/G		9.85E+00	9.85E+00	2.30E-01	0.2538	G	1.87E-02			1/19/2013 18:30	3018021	46DQ	MXWV4/1AA	
SOIL	CS	7440-22-4	Ag	-2.72E-01	U/G		9.85E+00	9.85E+00	2.40E-01	0.2538	G	1.97E-01			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7440-38-2	As	8.16E-01	U/G		9.83E+00	9.83E+00	4.40E-01	0.2538	G	3.66E-01			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7440-39-3	Ba	7.35E+01	U/G		1.97E+00	1.97E+00	1.30E+00	0.2538	G	1.07E+00			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7440-41-7	Beryllium	1.98E-01	U/G		9.83E-02	9.83E-02	5.30E-03	0.2543	G	2.73E-03			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7440-43-9	Cadmium	1.50E+01	U/G		1.97E+00	1.97E+00	3.00E-02	0.2543	G	2.48E-02			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7440-47-3	Cadmium	6.11E+00	U/G		9.83E+00	9.83E+00	8.00E-02	0.2543	G	6.59E-02			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7439-32-1	Lead	5.23E-01	U/G		9.83E+00	9.83E+00	1.10E-01	0.2543	G	8.65E-02			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	CS	7782-49-2	Se	-5.26E-01	U/G		9.83E+00	9.83E+00	3.10E-01	0.2543	G	2.55E-01			1/19/2013 18:35	3018021	46DQ	MXWV5/1AA	
SOIL	BLK	7440-22-4	Ag	7.63E+04	M/G		5.00E-02	5.00E-02	6.50E-04	0.2503	L	5.38E-04			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-38-2	As	-2.90E+04	M/G		5.00E-02	5.00E-02	1.60E-03	0.2503	L	1.38E-03			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-39-3	Ba	-1.2E+05	M/G		1.00E-02	1.00E-02	1.90E-05	0.2503	L	1.60E-05			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-41-7	Beryllium	7.73E-05	M/G		5.00E-04	5.00E-04	4.40E-05	0.2503	L	3.61E-05			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-43-9	Cadmium	2.87E-04	M/G		1.00E-02	1.00E-02	7.20E-05	0.2503	L	5.91E-05			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-47-3	Chromium	-1.33E-04	M/G		5.00E-02	5.00E-02	7.20E-04	0.2503	L	9.08E-04			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7439-92-1	Lead	-6.34E-04	M/G		5.00E-02	5.00E-02	1.10E-03	0.2503	L	1.10E-03			1/18/2013 13:58	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7782-49-2	Se	5.47E-04	M/G		5.00E-02	5.00E-02	1.30E-03	0.2503	L	2.36E-04			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-22-4	Ag	8.95E-01	M/G		5.00E-02	5.00E-02	2.90E-04	0.2511	L	6.70E-04			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-38-2	As	9.11E-01	M/G		5.00E-02	5.00E-02	6.70E-04	0.2511	L	5.54E-04			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-39-3	Ba	1.02E+00	M/G		1.00E-02	1.00E-02	1.90E-03	0.2511	L	1.56E-03			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-41-7	Beryllium	8.77E-01	M/G		5.00E-04	5.00E-04	2.70E-03	0.2511	L	2.21E-03			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-43-9	Cadmium	8.77E-01	M/G		1.00E-02	1.00E-02	3.00E-03	0.2511	L	2.50E-03			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-47-3	Chromium	9.03E+01	M/G		5.00E-02	5.00E-02	1.10E-03	0.2511	L	9.24E-04			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7439-92-1	Lead	8.93E+01	M/G		5.00E-02	5.00E-02	6.20E-03	0.2511	L	5.07E-03			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7782-49-2	Se	8.39E-01	M/G		5.00E-02	5.00E-02	1.50E-03	0.2511	L	1.25E-03			1/18/2013 14:01	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-22-4	Ag	4.03E+00	U/G		9.96E+00	9.96E+00	1.70E+00	0.2509	G	1.39E+00			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-38-2	As	9.25E-01	U/G		1.00E-04	1.00E-04	2.70E-03	0.2509	G	2.21E-03			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-39-3	Ba	7.06E-01	U/G		8.31E-01	8.31E-01	3.00E-03	0.2509	G	1.25E-03			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-41-7	Beryllium	8.77E-01	U/G		9.96E-02	9.96E-02	1.10E-03	0.2509	G	9.24E-03			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-43-9	Cadmium	1.63E-01	U/G		9.96E+00	9.96E+00	9.96E+00	0.2509	G	7.63E-03			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7440-47-3	Chromium	9.28E+00	U/G		9.96E+00	9.96E+00	1.60E+00	0.2509	G	1.29E-02			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	BLK	7439-92-1	Lead	2.87E+00	U/G		9.96E+00	9.96E+00	2.70E-01	0.2509	G	2.22E-01			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	DUP	J1R865 DUP	Ag	1.52E+00	U/G		9.96E+00	9.96E+00	4.60E-01	0.2509	G	3.82E-01			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	DUP	J1R865 DUP	As	7.06E-01	U/G		9.96E+00	9.96E+00	1.50E-01	0.2509	G	1.23E-00			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	DUP	J1R865 DUP	Ba	8.31E-01	U/G		9.96E+00	9.96E+00	1.80E+00	0.2509	G	1.49E-00			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	DUP	J1R865 DUP	Chromium	8.77E-01	U/G		9.96E+00	9.96E+00	2.05E+00	0.2509	G	2.05E+00			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	DUP	J1R865 DUP	Lead	8.77E-01	U/G		9.96E+00	9.96E+00	2.05E+00	0.2509	G	1.29E+00			1/18/2013 14:33	3018021	46DQ	MXWWC1AA	
SOIL	DUP	J1R865 DUP	Se	1.62E+02	%RECC		9.90E+00	9.90E+00	1.30E+00	0.2525	L	0.89E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Ag	1.73E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.00E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Ba	1.76E+02	%RECC		9.94E+00	9.94E+00	1.10E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Chromium	1.74E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Lead	1.74E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Se	7.77E+02	%RECC		9.90E+00	9.90E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Ag	7.40E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Ba	7.40E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Chromium	7.44E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Lead	7.44E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Se	7.77E+02	%RECC		9.90E+00	9.90E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Ag	7.40E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Ba	7.40E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	
SOIL	DUP	J1R865 DUP	Chromium	7.44E+02	%RECC		9.94E+00	9.94E+00	1.20E+00	0.2514	L	1.02E+00			1/18/2013 14:23	3018021	46DQ	MXWVTTAA	

**Richland Laboratory**  
**Data Review Check List**  
**Hexavalent Chromium**

Batch Number(s):	3021030	Lab Sample Numbers or SDG:	J01671	
Method/Test/Parameter: Cr+6 <input type="checkbox"/> RL-WC-003(Aqueous) <input checked="" type="checkbox"/> RL-WC-004(Solid)				
Review Item	Yes (✓)	No (✗)	N/A (✗)	2 <sup>nd</sup> Level Review (✓)
<b>A. Initial Calibration</b>				
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>B. Continuing Calibration</b>				
1. CCV analyzed at required frequency and all parameters within 10% of expected?	✓			✓
2. CCB analyzed at required frequency and all results ≤ reporting limit?	✓			✓
<b>C. Sample Analysis</b>				
1. Were any samples with concentrations above the linear range diluted and reanalyzed?			✓	✓
2. Were all sample holding times met?	✓			✓
<b>D. QC Samples</b>				
1. All results for the preparation blank below limits?	✓			✓
2. LCS percent recovery within 85-115%	✓			✓
3. PbCrO <sub>4</sub> 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%?			✓	✓
<b>E. Other</b>				
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 \_\_\_\_\_ Date 1/22/13 2<sup>nd</sup> Review \_\_\_\_\_   
Date 1/22/13

# Clouseau Nonconformance Memo



NCM #: **10-22633**  
NCM Initiated By: Russell Grigsby  
Date Opened: 01/22/2013  
Date Closed:

Classification: **Deficiency**  
Status: **PMREVIEW**  
Production Area: Classical Chemistry  
Tests: 7196A  
Lot #'s (Sample #'s): J3A170411  
(1,10,2,3,4,5,6,7,8,9),  
J3A210000 (30),  
QC Batches: 3021030,

Nonconformance: Other (describe in detail)  
Subcategory: Other (explanation required)

## Problem Description / Root Cause

Name	Date	Description
Russell Grigsby	01/22/2013	The duplicate sample QC was found to differ from its original by 46%. This is probably due to inhomogeneity of the sample as well as the wide variation of particle size found within the sample.

## Corrective Action

Name	Date	Corrective Action
Russell Grigsby	01/22/2013	The data was submitted for client review.

## 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
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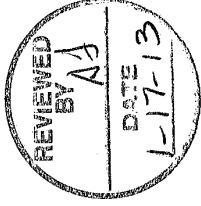
**Richland Laboratory**  
**Data Review Check List**  
**Hexavalent Chromium**

Batch Number(s): <b>3018020</b>	Lab Sample Numbers or SDG: <b>J01671</b>			
Method/Test/Parameter: Cr+6 <input type="checkbox"/> RL-WC-003(Aqueous) <input checked="" type="checkbox"/> RL-WC-004(Solid)				
Review Item	Yes (✓)	No (✓)	N/A (✓)	2 <sup>nd</sup> Level Review (✓)
<b>A. Initial Calibration</b>				
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 $\leq$ reporting limit?	✓			✓
<b>B. Continuing Calibration</b>				
1. CCV analyzed at required frequency and all parameters within 10% of expected?	✓			✓
2. CCB analyzed at required frequency and all results $\leq$ reporting limit?	✓			✓
<b>C. Sample Analysis</b>				
1. Were any samples with concentrations above the linear range diluted and reanalyzed?			✓	N/A
2. Were all sample holding times met?	✓			✓
<b>D. QC Samples</b>				
1. All results for the preparation blank below limits?	✓			✓
2. LCS percent recovery within 85-115%	✓			✓
3. PbCrO <sub>4</sub> 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%?			✓	N/A
<b>E. Other</b>				
1. Are all nonconformances included and noted?			✓	N/A
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:

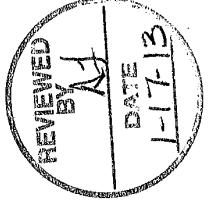
Analyst Beth Clark Date 1/3/13 2<sup>nd</sup> Review Rose Date 1/2/13  
 CG-231 Rev. 1 5/12

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-431	Page 1 of 1
Collector <i>R. S. Bell</i>	Common Contact Jean Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 81	Data Turnaround as soon as possible <i>2-4 Days</i>		
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce	Sampling Location 100-D-100 BCL SPA	SAF No. RC-074					
Ice Chest No. N/A	Field Logbook No. EL-607-15	COA 0D10032000	Method of Shipment Hand Deliver				
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A					
POSSIBLE SAMPLE HAZARDS/REMARKS None		Preservation Cool 4C	Cool 4C				
Special Handling and/or Storage Cool 4 Deg C		Type of Container No. of Container(s)	G/P 1	G/P 1			
		Volume	125mL	125mL			
<b>J3A 170411 J0 1671 Due 11/18/13</b>		See Item (1) in Special Instructions.	Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)				
Sample No.	Matrix *	Sample Date	Sample Time				
J1R955 <b>NXXWLO</b>	SOIL	11/16/13	1411	X	X		
J1R956 <b>NXXWL2</b>	SOIL	11/16/13	1415	X	X		
J1R957 <b>NXXWL4</b>	SOIL	11/16/13	1418	X	X		
J1R958 <b>NXXWL5</b>	SOIL	11/16/13	1412	X	X		
J1R959 <b>NXXWL8</b>	SOIL	11/16/13	1426	X	X		
Sign/Print Names SPECIAL INSTRUCTIONS							
Relinquished By/Removed From <i>Barry L. Bell</i>	Date/Time 11/16/13	Received By/Stored In <i>Jeffrey Wolf</i>	Date/Time 11/16/13	(1) Metals by ICP - 6010 - Quick Turn (Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver)			
Relinquished By/Removed From <i>Jeffrey Wolf</i>	Date/Time 11/16/13	Received By/Stored In <i>Jeffrey Wolf</i>	Date/Time 11/16/13				
Relinquished By/Removed From <i>Jeffrey Wolf</i>	Date/Time 11/16/13	Received By/Stored In <i>Jeffrey Wolf</i>	Date/Time 11/16/13				
Relinquished By/Removed From <i>Jeffrey Wolf</i>	Date/Time 11/17/13	Received By/Stored In <i>Jeffrey Wolf</i>	Date/Time 11/17/13				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By	Title					
FINAL SAMPLE DISPOSITION	Disposal Method	Title					
Date/Time							
Date/Time							



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-432	Page 1 of 1
Collector <i>R. Bell</i>	Company Contact Joan Kessner	Telephone No. 509-375-4588	Project Coordinator KESSNER, JH.	Price Code 8L	Data Turnaround 21 Days 24/7
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proc	Sampling Location 100-D-100 BCL SPA	SAF No. RC-074	Method of Shipment Hand Deliver		
Ice Chest No. N/A	Field Logbook No. EL-1607-15	COA 0D10032000	Bill of Lading/Air Bill No. N/A		
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS None					
Special Handling and/or Storage Cool 4 Deg C					
 <b>J3A170411</b> SAMPLE ANALYSIS <i>J01671</i> <i>Due 11/18/13</i>					
Sample No.	Matrix *	Sample Date	Sample Time		
J1R960	MXWLR	SOIL	1-16-13	X	X
J1R961	MXWLT	SOIL	1	X	X
J1R962	MXWLV	SOIL		X	X
J1R963	MXWLW	SOIL		X	X
J1R964	MXWLX	SOIL	V	1452	X
SPECIAL INSTRUCTIONS					
Matrix * S=Soil SE=Sediment SO=Solid SH=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids TR=Trace WF=Waste L=Liquid V=Vegetation X=Other					
CHAIN OF POSSESSION					
Relinquished By/Removed From <i>TestAmerica Incorporated</i>	Date/Time <i>1/16/13</i>	Received By/Stored In <i>John</i>	Date/Time <i>1/16/13</i>	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}	
Relinquished By/Removed From <i>John</i>	Date/Time <i>1/16/13</i>	Received By/Stored In <i>John</i>	Date/Time <i>1/16/13</i>		
Relinquished By/Removed From <i>John</i>	Date/Time <i>1/16/13</i>	Received By/Stored In <i>John</i>	Date/Time <i>1/16/13</i>		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
LABORATORY SECTION	Received By	Title			
FINAL SAMPLE DISPOSITION	Disposal Method	Date/Time			

WCH-EE-011



Date/Time  
Disposed By

## Sample Check-in List

Date/Time Received: 1-17-13 / 0830 Container GM Screen Result: (Airlock) .6 Initials B ]  
 Sample GM Screen Result (Sample Receiving) .4 Initials B ]

Client: WCA SDG #: 501671 NA [ ] SAF #: RC-074 NA [ ]

Lot Number: J3A170411

Chain of Custody #: RC-074-432

Shipping Container ID: Hand de Div. NA [ ] Air Bill Number: \_\_\_\_\_ NA [ ]

Samples received inside shipping container/cooler/box Yes B ] 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 <u>B</u> ] |
| 2. Custody Seals dated and signed?             | Yes [ ]   | No [ ]  | No Custody Seal <u>B</u> ] |
| 3. Cooler temperature:                         | <u>5.60 °C</u> <sup>Ice</sup> <sub>pucks</sub> NA [ ] |         |                            |
| 4. Vermiculite/packing materials is            | NA <u>B</u> ]   | Wet [ ] | Dry [ ]                    |

Item 5 through 16 for samples. Initial appropriate response.

- |  |  |         |               |
|--|--|---------|---------------|
| 5. Chain of Custody record present?  | Yes <u>B</u> ]   | No [ ]  |               |
| 6. Number of samples received (Each sample may contain multiple bottles):  | <u>10</u>  |         |               |
| 7. Containers received:  | <u>20 x 125 ml P</u>   |         |               |
| 8. Sample holding times exceeded?  | NA [ ]   | Yes [ ] | No <u>B</u> ] |
| 9. Samples have:   | <input checked="" type="checkbox"/> tape      hazard labels<br><input checked="" type="checkbox"/> custody seals <u>B</u> appropriate sample labels  |         |               |
| 10. Matrix:  | <input checked="" type="checkbox"/> A (FLT, Wipe, Solid, Soil)      I (Water)<br><input checked="" type="checkbox"/> S (Air, Niosh 7400)      T (Biological, Ni-63)  |         |               |
| 11. Samples:   | <input checked="" type="checkbox"/> are in good condition      _____ are leaking<br><input checked="" type="checkbox"/> are broken      _____ have air bubbles (Only for samples requiring no head space)<br><input checked="" type="checkbox"/> Other _____ |         |               |
| 12. Sample pH appropriate for analysis requested<br>(If acidification is necessary, then document sample ID, initial pH, amount of HNO <sub>3</sub> added and pH after addition on table overleaf) | Yes [ ]   No [ ]   NA [ ]<br>RPL ID # of preservative used : <u>W/A</u>  |         |               |
| 13. Were any anomalies identified in sample receipt?   | Yes [ ]   No <u>B</u> ]  |         |               |
| 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: N/A

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

[B] Client/Courier unpack cooler.

Sample Custodian: John Smith Date: 1-17-13

Date: 1-17-13

Client Informed on \_\_\_\_\_ by \_\_\_\_\_ Person contacted \_\_\_\_\_

[ ] No action necessary; process as is

Project Manager Shonelle Weller Date 11/11/13

JBA 170411 DW 1/17/13

LS-023, Rev. 15, 07/11

See over for additional information

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-433	Page 1 of 1
Collector	R. A. Deffel	Company Contact Jean Kessner	Telephone No. 509-375-4588	Project Coordinator KESSNER, JH	Price Code 8L	Data Turnaround <del>24 hours</del> <del>21 Days</del> <del>7 Days</del>	
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proc		Sampling Location 100-D-100 BCL SPA		SAF No. RC-074			
Ice Chest No.	N/A	Field Logbook No. EL-1607-15	COA 0D10032000	Method of Shipment Hand Deliver			
Shipped To TestAmerica Incorporated, Richland		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS None		Preservation G/P	Cool 4C Cool 4C				
Special Handling and/or Storage Cool 4 Deg C		Type of Container No. of Container(s) 1					
 J3A180402 Due 1-21-13 5011071		Volume 125mL	125mL				
			See item (1) in Chromium Hex 7196 - Quick Turn (Hexavalent Chromium)				
Sample No.	Matrix *	Sample Date 1/17/13	Sample Time 1413	*	*		
J1R965	SOIL						
J1R966	SOIL						
J1R967	SOIL						
J1R968	SOIL						
J1R969	SOIL						
CHAIN OF POSSESSION		SPECIAL INSTRUCTIONS					
Relinquished By/Removed From R. A. Deffel	Date/Time 1/17/13 15:10	Received By/Stored In R. A. Deffel	Date/Time 1/17/13 15:10	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}			
Relinquished By/Removed From R. A. Deffel	Date/Time 1/17/13 1645	Received By/Stored In R. A. Deffel	Date/Time 1/17/13 1645	* Custodian unavailable to remove samples from controlled storage. Shipper removed samples, taking custody for shipment to lab.			
Relinquished By/Removed From R. A. Deffel	Date/Time 1/18/13 0812	Received By/Stored In R. A. Deffel	Date/Time 1/18/13 0827				
Relinquished By/Removed From R. A. Deffel	Date/Time 1/18/13 0812	Received By/Stored In R. A. Deffel	Date/Time 1/18/13 0827				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time				
LABORATORY	Received By			Title			
SECTION	Disposal Method			Date/Time			
FINAL SAMPLE DISPOSITION	WCH-EE-011			Disposed By			

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-434	Page 1 of 1
Collector <i>WA Riddle</i>	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KEFESSNER, JH	Price Code 8L	Data Turnaround <i>1/7/12 21 Days 24 Hours</i>
Project Designation 100-DDR Burial Grounds & Remaining Sites - Soil In-Proce	Sampling Location 100-D-100 BCL SPA	SAF No. RC-074	Method of Shipment Hand Deliver		
Ice Chest No. N/A	Field Logbook No. EL-1607-15	COA 0D10032000	Bill of Lading/Air Bill No. N/A		
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. N/A	Preservation Cool 4C	Preservation G/P		
POSSIBLE SAMPLE HAZARDS/REMARKS None	Type of Container No. of Container(s)	1	1		
Special Handling and/or Storage Cool 4 Dog C	Volume	125mL	125mL		
<i>J11R970-J11R974</i> Due 1-31-13 SAMPLE ANALYSIS <i>J11R971</i>	See Item (1) in Special Instructions	Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)			
Sample No.	Matrix *	Sample Date <i>1/17/13</i>	Sample Time <i>1433</i>		
J11R970	SOIL	<i>X</i>	<i>X</i>		
J11R971	SOIL	<i>X</i>	<i>X</i>		
J11R972	SOIL	<i>X</i>	<i>X</i>		
J11R973	SOIL	<i>X</i>	<i>X</i>		
J11R974	SOIL	<i>V</i>	<i>X</i>		
SPECIAL INSTRUCTIONS					
Matrix * S=Soil SE=Sealment SO=Solid SI=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other					
REVIEWED BY <i>SO</i>					
DATE <i>1-18-13</i>					
REVIEWED BY <i>A. Frier A. Frier</i>					
DATE <i>1-18-13</i>					
REVIEWED BY <i>A. Frier A. Frier</i>					
DATE <i>1-18-13</i>					
REVIEWED BY <i>A. Frier A. Frier</i>					
DATE <i>1-18-13</i>					
LABORATORY SECTION					
Disposal Method					
WCH-EE-011					
Date/Time					
Date/Time					
Disposed By					

**Sample Check-in List**

Date/Time Received: 1-15-13 | 0827 Container GM Screen Result: (Airlock) .4 Initials B ]  
 Sample GM Screen Result (Sample Receiving) .4 Initials B ]

Client: WCAT SDG #: 50167A NA [ ] SAF #: RC-074 NA [ ]

Lot Number: J3A180402 PW-11813

Chain of Custody # RC-074-434; 433

Shipping Container ID: Shard decont NA pw Air Bill Number: \_\_\_\_\_ NA B

Samples received inside shipping container/cooler/box Yes B ] 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 <u>B</u> ] |
| 2. Custody Seals dated and signed?             | Yes [ ]             | No [ ]  | No Custody Seal <u>B</u> ] |
| 3. Cooler temperature:                         | <u>21</u> °C NA [ ] |         |                            |
| 4. Vermiculite/packing materials is            | NA <u>B</u> ]       | Wet [ ] | Dry [ ]                    |

Item 5 through 16 for samples. Initial appropriate response.

- |   |                    |        |
|---|--------------------|--------|
| 5. Chain of Custody record present?                                       | Yes <u>B</u> ]     | No [ ] |
| 6. Number of samples received (Each sample may contain multiple bottles): | <u>10</u>          |        |
| 7. Containers received:   | <u>20 x 125 mL</u> |        |

- |  |   |         |               |
|--|---|---------|---------------|
| 8. Sample holding times exceeded?  | NA [ ]  | Yes [ ] | No <u>B</u> ] |
| 9. Samples have:   | <u>tape</u> hazard labels<br><u>B</u> custody seals <u>B</u> appropriate sample labels  |         |               |
| 10. Matrix:  | <u>B</u> A (FLT, Wipe, Solid, Soil) <u>I</u> (Water)<br><u>S</u> (Air, Niosh 7400) <u>T</u> (Biological, Ni-63)   |         |               |
| 11. Samples:   | <u>B</u> are in good condition <u>      </u> are leaking<br><u>      </u> are broken <u>      </u> have air bubbles (Only for samples requiring no head space)<br><u>      </u> Other <u>      </u> |         |               |
| 12. Sample pH appropriate for analysis requested<br>(If acidification is necessary, then document sample ID, initial pH, amount of HNO <sub>3</sub> added and pH after addition on table overleaf) | Yes [ ] No [ ] NA <u>B</u> ]  |         |               |
| RPL ID # of preservative used :  | <u>D/A</u>  |         |               |
| 13. Were any anomalies identified in sample receipt?   | Yes [ ] No <u>B</u> ]   |         |               |
| 14. Description of anomalies (include sample numbers):   | NA <u>B</u>   |         |               |

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

16. Additional Information: N/A

[ ] Client/Courier denied temperature check.

[] Client/Courier unpack cooler.

Sample Custodian: Janice Beck Date: 1-18-13

Date: 1-18-13

Client Information on \_\_\_\_\_ by \_\_\_\_\_ Person contacted

No action necessary; process as is

Project Manager Shambhu Date 1/8/13

J3A 1804/02

Am 1/8/13

LS-023, Rev. 15, 07/11

See over for additional information.



\*\*\*RE-ANALYSIS REQUEST\*\*\*

DUE DATE ASAP

CUSTOMER WCH

ANALYSIS CF + V

MATRIX Soil

LOT NUMBER J3A 170411

SAMPLE DELIVERY GROUP J01LA1

OLD BATCH NUMBER 30170417

NEW BATCH NUMBER 3021030

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1)		
2) See Attached		Client Requested Re-analysis
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		
LAB QC ID		Assigned with new batch.

RC-048, 12/07, Rev 8

Sample Preparation/Analysis										Balance Id:	
DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A)										Pipet #: _____	
51 CLIENT: HANFORD										Sep1 DT/Tm Tech: _____	
Batch: 3021030 SOIL mg/kg PM, Quote: RW2, 88144										Sep2 DT/Tm Tech: _____	
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj. Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle
1 MXWLR-1-CG-S J3A170411-1-MS 01/16/2013 14:29	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	Beta:						
2 MXWLR-1-CH-X J3A170411-1-DUP 01/16/2013 14:29	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	Beta:						
3 MXWLR-2-AC J3A170411-1-SAMP 01/16/2013 14:29	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	Beta:						
4 MXWLT-2-AC J3A170411-2-SAMP 01/16/2013 14:43	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	Beta:						
5 MXWLV-2-AC J3A170411-3-SAMP 01/16/2013 14:46	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	Beta:						
6 MXWLW-2-AC J3A170411-4-SAMP 01/16/2013 14:49	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	Beta:						
7 MXWLX-2-AC J3A170411-5-SAMP 01/16/2013 14:52	AmrRec: 125P	#Containers: 2	Alpha:	Scr:	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	ISV - Insufficient Volume for Analysis WO Cnt: 7 ICOC v4.8.49									

Sample Preparation/Analysis										Balance Id:
DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A)										Pipet #:
51 CLIENT: HANFORD										Sep1 DT/Tm Tech:
Batch: 3021030    SOIL                  mg/kg										Sep2 DT/Tm Tech:
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Comments: CR Analyst/ Init/Date
8 MXWL0-2-AC										Prep Tech:
J3A170411-6-SAMP										
01/16/2013 14:11					AmtRec: 125P					Beta:
#Containers: 2										
9 MXWL2-2-AC										
J3A170411-7-SAMP										
01/16/2013 14:15					AmtRec: 125P					
#Containers: 2										
10 MXWL4-2-AC										
J3A170411-8-SAMP										
01/16/2013 14:18					AmtRec: 125P					
#Containers: 2										
11 MXWL5-2-AC										
J3A170411-9-SAMP										
01/16/2013 14:22					AmtRec: 125P					
#Containers: 2										
12 MXWL8-2-AC										
J3A170411-10-SAMP										
01/16/2013 14:26					AmtRec: 125P					
#Containers: 2										
13 MXW8R-1-AA-B										
J3A210000-30-BLK										
01/22/2013 12:02 pd					AmtRec:					
#Containers: 1										
14 MXW8R-1-AC-C										
J3A210000-30-LCS										
01/22/2013 12:02 pd					AmtRec:					
#Containers: 1										
TestAmerica Richland Wa.	Key: In - Initial Amt, fi - Final Amt, ci - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	ISV - Insufficient Volume for Analysis								
		W/O Cnt: 14 ICOC v4.8.49								

Sample Preparation/Analysis		Balance Id:				
DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A)		Pipet #: _____				
5I CLIENT: HANFORD		Sep1 DT/Tm Tech: _____				
Batch: 3021030		Sep2 DT/Tm Tech: _____				
SEQ Batch, Test: None		mg/kg				
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Adj Aliq Amt (Un-Acidified)			
			QC Tracer Frep Date			
			Tracer Yield			
			Dish Size			
			Ppt or Geometry			
			Count Time Min			
			Detector Id			
			Count On Off (24hr) Circle			
			CR Analyst, Init/Date			
Comments:		Prep Tech:				
All Clients for Batch: 127642, Washington Closure Hanford LLC, Washington Closure Hanford LLC, RW2, 88144						
MXWLRCG-MS Constituent List: mg/kg ICL:75 UCL:125 RPD:20						
HEXCHROME	RDL:0.35	mg/kg	ICL:			
MXW8R1AA-BLK:	HEXCHROME	RDL:0.35	mg/kg	ICL:	UCL:	RPD:
MXW8R1AC-LCS:	HEXCHROME	RDL:0.35	mg/kg	ICL:80	UCL:120	RPD:20
MXWLRCG-MS Calc Info:						
Uncert Level (#s) :	2	Decay to SdDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MXW8R1AA-BLK:	Uncert Level (#s) :	2	Decay to SdDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
MXW8R1AC-LCS:	Uncert Level (#s) :	2	Decay to SdDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B
TestAmerica	Key: ln - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2	Page 3	ISV - Insufficient Volume for Analysis	W/O Cnt: 14		
Richland Wa.	pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added			ICOC v4.8.49		

Sample Preparation/Analysis										Balance Id:
										Pipet #:
										Sep1 DT/Tm Tech:
										Sep2 DT/Tm Tech:
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	CR Analyst, Init/Date
Comments:	Prep Tech:	Prep Tech:	Prep Tech:	Prep Tech:	Prep Tech:	Prep Tech:	Prep Tech:	Prep Tech:	Prep Tech:	Comments:
1 MXWVT-1-AC										
J3A180402-1-SAMP										
01/17/2013 14:13										
2 MXWVT-1-AL-S										
J3A180402-1-MS										
01/17/2013 14:13										
3 MXWVT-1-AM-X										
J3A180402-1-DUP										
01/17/2013 14:13										
4 MXWVW-1-AC										
J3A180402-2-SAMP										
01/17/2013 14:19										
5 MXWVW-1-AC										
J3A180402-3-SAMP										
01/17/2013 14:22										
6 MXWX-1-AC										
J3A180402-4-SAMP										
01/17/2013 14:25										
7 MXWV0-1-AC										
J3A180402-5-SAMP										
01/17/2013 14:30										
TestAmerica	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 Richland Wa.									
	ISV - Insufficient Volume for Analysis WO Cnt: 7 ICOC v4.8.49									

Sample Preparation/Analysis								Balance Id:				
Work Ord, Lot, Sample Date				Initial Aliquot Amnt (Unit/Aliq Amnt (Unit))				Pipet #:				
Total Amnt/Unit				Adj. Aliq Amnt (Un-Acidified)		QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	CR Analyst, Init/Date	Comments:
1/18/2013 9:38:21 AM	127642, Washington Closure Hanford LLC			DW Alkaline Digestion by method 3060A								
	Washington Closure Hanford LLC			EA Chromium, Hexavalent (7196A)								
AnalyDueDate: 01/21/2013				51 CLIENT: HANFORD								
<b>Batch: 3018020</b>	<b>SOIL</b>			<b>mg/kg</b>								
SEQ Batch, Test: None				PM, Quote: RW2, 88144								
8 MXWV1-1-AC												
J3A180402-6-SAMP												
01/17/2013 14:33				AmnRec: 2X125MLP		#Containers: 2						
9 MXWV2-1-AC												
J3A180402-7-SAMP												
01/17/2013 14:45				AmnRec: 2X125MLP		#Containers: 2						
10 MXWV3-1-AC												
J3A180402-8-SAMP												
01/17/2013 14:33				AmnRec: 2X125MLP		#Containers: 2						
11 MXWV4-1-AC												
J3A180402-9-SAMP												
01/17/2013 14:48				AmnRec: 2X125MLP		#Containers: 2						
12 MXWV5-1-AC												
J3A180402-10-SAMP												
01/17/2013 14:55				AmnRec: 2X125MLP		#Containers: 2						
13 MXWV7-1-AA-B												
J3A180000-20-BLK												
01/18/2013 09:38 pd				AmnRec:		#Containers: 1						
14 MXWV7-1-AC-C												
J3A180000-20-LCS												
01/18/2013 09:38 pd				AmnRec:		#Containers: 1						
TestAmerica	Key: In - Initial Amnt, fi - Final Amnt, di - Diluted Amnt, s1 - Sep1, s2 - Sep2				Page 2							
Richland Wa.	pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added											
	ISV - Insufficient Volume for Analysis											
	WO Cnt: 14											
	ICOC v4.8.49											

Sample Preparation/Analysis														
DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A)				Balance Id: _____ Pipet #: _____										
51 CLIENT: HANFORD				Sep1 DT/Tm Tech: _____ Sep2 DT/Tm Tech: _____										
AnalyDueDate: 01/21/2013				Prep Tech: _____										
Batch: 3018020				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														
Washington Closure Hanford LLC, RW2, 88144														
XWVVT1AC-SAMP Constituent List:														
XWVVT1AL-MS Constituent List:														
XWVVT1AA-BLK:														
XWVVT1AC-LCS:														
XWVVT1AC-SAMP Calc Info:														
Uncert Level (#s) : 2 Decay to Sadt: Y Blk Subt.: N Sci.Not.: Y ODRs: B														
XWVVT1AL-MS Calc Info: Uncert Level (#s) : 2 Decay to Sadt: Y Blk Subt.: N Sci.Not.: Y ODRs: B														
XWVVT1AA-BLK: Uncert Level (#s) : 2 Decay to Sadt: Y Blk Subt.: N Sci.Not.: Y ODRs: B														
XWVVT1AC-LCS: Uncert Level (#s) : 2 Decay to Sadt: Y Blk Subt.: N Sci.Not.: Y ODRs: B														
TestAmerica Richland Wa.	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added											Page 3	ISV - Insufficient Volume for Analysis	WO Cnt: 14 ICOIC v4.8.49