

**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 1/29/13

INITIAL/DATE

**COMMENTS:**

**SDG J01674**

**SAF RC-074**

Rad only

Chem only

Rad & Chem

Complete

Partial

**Waste Site: 100-D-100 In-Situ BCL 18-30' bgs**

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 61 Pages*

Report No.: 54359

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.
J01674	RC-074	J1R995	J3A240405-1	MXX5D1AC	9MXX5D10	3024030
		J1R996	J3A240405-2	MXX5E1AC	9MXX5E10	3024030
		J1RCL5	J3A210428-1	MXXAK1AC	9MXXAK10	3021062
		J1RCL6	J3A210428-2	MXXAL1AC	9MXXAL10	3021062
		J1RCL7	J3A210428-3	MXXAM1AC	9MXXAM10	3021062
		J1RCL8	J3A210428-4	MXXAP1AC	9MXXAP10	3021062
		J1RCL9	J3A210428-5	MXXAR1AC	9MXXAR10	3021062
		J1RCM0	J3A210428-6	MXXAT1AC	9MXXAT10	3021062
		J1RCM3	J3A210428-7	MXXAV1AC	9MXXAV10	3021062
		J1RCM4	J3A210428-8	MXXAW1AC	9MXXAW10	3021062
		J1RCM5	J3A210428-9	MXXAX1AC	9MXXAX10	3021062
		J1RCM7	J3A210428-10	MXXA01AC	9MXXA010	3021062
		J1RCM8	J3A210428-11	MXXA11AC	9MXXA110	3021062
		J1RCM9	J3A210428-12	MXXA21AC	9MXXA210	3021062
		J1RCN1	J3A210428-13	MXXA31AC	9MXXA310	3021062
		J1RCN2	J3A210428-14	MXXA41AC	9MXXA410	3021062
		J1RCN3	J3A210428-15	MXXA51AC	9MXXA510	3021062
		J1RCN5	J3A210429-1	MXXCC1AC	9MXXCC10	3021062
		J1RCN6	J3A210429-2	MXXCD1AC	9MXXCD10	3021062
		J1RCN7	J3A210429-3	MXXCE1AC	9MXXCE10	3021062



THE LEADER IN ENVIRONMENTAL TESTING

### Certificate of Analysis

Washington Closure Hanford  
2620 Fermi Avenue  
Richland, WA 99354

TestAmerica Laboratories, Inc.

January 25, 2013

Attention: Joan Kessner

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SAF Number	:	RC-074
Date SDG Closed	:	January 24, 2013
Number of Samples	:	Twenty (20)
Sample Type	:	Soil
SDG Number	:	J01674
Data Deliverable	:	Quick Turn Metals / Summary

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#### CASE NARRATIVE

##### I. Introduction

Between January 21, 2013 and January 24, 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>
J1RCL5	MXXAK	SOIL	1/21/13
J1RCL6	MXXAL	SOIL	1/21/13
J1RCL7	MXXAM	SOIL	1/21/13
J1RCL8	MXXAP	SOIL	1/21/13
J1RCL9	MXXAR	SOIL	1/21/13
J1RCM0	MXXAT	SOIL	1/21/13
J1RCM3	MXXAV	SOIL	1/21/13
J1RCM4	MXXAW	SOIL	1/21/13
J1RCM5	MXXAX	SOIL	1/21/13
J1RCM7	MXXA0	SOIL	1/21/13
J1RCM8	MXXA1	SOIL	1/21/13
J1RCM9	MXXA2	SOIL	1/21/13
J1RCN1	MXXA3	SOIL	1/21/13
J1RCN2	MXXA4	SOIL	1/21/13
J1RCN3	MXXA5	SOIL	1/21/13
J1RCN5	MXXCC	SOIL	1/21/13
J1RCN6	MXXCD	SOIL	1/21/13
J1RCN7	MXXCE	SOIL	1/21/13
J1R995	MXX5D	SOIL	1/24/13
J1R996	MXX5E	SOIL	1/24/13

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 J01674 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 3021047:

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

#### Batch 3024033:

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 3021062:

The LCS, batch blank, samples, sample duplicate (J1RCL5) and sample matrix spike (J1RCL5) results are within contractual requirements.

#### Batch 3024030:

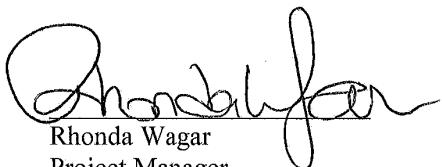
The LCS, batch blank, samples, sample duplicate (J1R995) and sample matrix spike (J1R995) results are within contractual requirements.

Washington Closure Hanford  
January 25, 2013

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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,  $R = \text{constants} * f(x,y,z,\dots)$ . 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) <math>u_e</math> - Combined Uncertainty.</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, $u_e$ 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%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin})) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . 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%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin}) + 2.71 / \text{SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Abn} * \text{Vol}) * \text{IngrFct})$ . 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. :** 54359

**SDG No:** J01674

Client Id Batch	Work Order	Parameter	Result +/- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
<b>3021062 7196_CR6</b>									
J1RCL5	MXXAK1AC	HEXCHROME	3.70E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
	MXXAK1CF	HEXCHROME	2.69E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	3.50E-01	31.6
<b>J1RCL6</b>									
	MXXAL1AC	HEXCHROME	3.04E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCL7	MXXAM1AC	HEXCHROME	4.27E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCL8	MXXAP1AC	HEXCHROME	3.33E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCL9	MXXAR1AC	HEXCHROME	4.51E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM0	MXXAT1AC	HEXCHROME	2.92E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM3	MXXAV1AC	HEXCHROME	3.33E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM4	MXXAW1AC	HEXCHROME	3.14E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM5	MXXAX1AC	HEXCHROME	2.96E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM7	MXXA01AC	HEXCHROME	6.71E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM8	MXXA11AC	HEXCHROME	4.24E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCM9	MXXA21AC	HEXCHROME	3.90E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCN1	MXXA31AC	HEXCHROME	3.72E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCN2	MXXA41AC	HEXCHROME	4.43E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCN3	MXXA51AC	HEXCHROME	4.87E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCN5	MXXCC1AC	HEXCHROME	3.63E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCN6	MXXCD1AC	HEXCHROME	4.64E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
J1RCN7	MXXCE1AC	HEXCHROME	2.75E-01	+ - 0.0E+00	mg/kg	N/A	1.55E-01	1.55E-01	
<b>3024030 7196_CR6</b>									
J1R995									

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. : 54359****SDG No: J01674**

Client Id Batch	Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
<b>3024030 7196_CR6</b>									
<b>J1R995</b>									
MXX5D1AC	HEXCHROME		3.03E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
MXX5D1AM	HEXCHROME		4.05E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	3.50E-01	28.8
<b>J1R996</b>									
MXX5E1AC	HEXCHROME		3.44E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
<b>No. of Results: 22</b>									

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. : 54359

SDG No.: J01674

Batch Work Order	Parameter	Result +- Uncertainty ( 2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
<b>7196_CR6</b>								
3021062 MATRIX SPIKE, J1RCL5								
MXXAK1CE HEXCHROME		2.98E+01 +- 0.0E+00		mg/kg	N/A	92%	-0.1	1.55E-01
3021062 LCS,								
MXXDQ1AC HEXCHROME		1.93E+01 +- 0.0E+00		mg/kg	N/A	102%	0.0	1.55E-01
3021062 BLANK QC,								
MXXDQ1AA HEXCHROME		1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
<b>7196_CR6</b>								
3024030 MATRIX SPIKE, J1R995								
MXX5D1AL HEXCHROME		2.71E+01 +- 0.0E+00		mg/kg	N/A	89%	-0.1	1.55E-01
3024030 LCS,								
MXX6G1AC HEXCHROME		1.89E+01 +- 0.0E+00		mg/kg	N/A	99%	0.0	1.55E-01
3024030 BLANK QC,								
MXX6G1AA 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.:** J3A240405-1  
**Client Sample ID:** J1R995

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-439

**Collection Date:** 1/23/2013 2:46:00 PM  
**Received Date:** 1/24/2013 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: 3024030	7196 CR6		Work Order: MXX5D1/AC			Report DB ID: 9MXX5D10					
HEXCHROME	3.03E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.)	1/24/13 10:00 a		2.5	g	

No. of Results: 1      Comments:

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

**Date:** 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A240405-2  
**Client Sample ID:** J1R996

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-439

**Collection Date:** 1/23/2013 2:49:00 PM  
**Received Date:** 1/24/2013 8:30:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Rst/MDL, CRDL(RL)	Analysis, Rst/TotUncrt	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3024030	7196 CR6	Work Order: MXX5E1AC	Report DB ID: 9MXX5E10							
HEXCHROME	3.44E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.2)	1/24/13 10:00 a	2.5015	g	

No. of Results: 1      Comments:

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

**Date:** 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-1  
**Client Sample ID:** J1RCL5

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 9:20:00 AM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196_CRG	Work Order: MXXAK1AC					Report DB ID: 9MXXAK10				
HEXCHROME	3.70E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.4)	1/21/13 03:45 p	2.5774		g	

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

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-2  
 Client Sample ID: J1RCL6

SDG: J01674  
 Report No. : 54359  
 COC No. : RC-074-451

Collection Date: 1/18/2013 10:30:00 AM  
 Received Date: 1/21/2013 10:55:00 AM  
 Matrix: SOIL

Parameter	Result	Qual	Count Error ( 2 s)	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/Tot/Ucert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196_CRG6			Work Order: MXXAL1AC				Report DB ID: 9MXXAL10				
HEXCHROME	3.04E-01	0.0E+00		1.55E-01	mg/kg	N/A	(2.)	1/21/13 03:45 p		2.5976	g	

No. of Results: 1      Comments:

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

**Date:** 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-3  
**Client Sample ID:** J1RCL7

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 12:10:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Qual	Count	Total	MDL,	Rpt Unit, Lc	Yield	Rst/MDL, Rst/(RL)	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196_CRG			Work Order: MXXAM1AC	MXXAM1AC	Report DB ID: 9MXXAM10						
HEXCHROME	4.27E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.8)	1.55E-01	N/A	1/21/13 03:45 p	2.5821	9	

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

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-4  
**Client Sample ID:** J1RCL8

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 12:28:00 PM  
**Received Date:** 1/21/2013 10:55:00 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/TotUncrt	Prep Date	Size	Size	Detector
Batch: 3021062	7196 CR6	Work Order:	MXXAP1AC	Report DB ID:	9MXXAP10						
HEXCHROME	3.33E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.1)	1/21/13 03:45 p		2.5041		

No. of Results: 1      Comments:

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-5  
**Client Sample ID:** J1RCL9

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 12:20:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196 CR6	Work Order: MXXAR1AC	Report DB ID: 9MXXAR10								
HEXCROME	4.51E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.9)	1/21/13 03:45 p	2.5783	9	N/A	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-6  
 Client Sample ID: J1RCM0

SDG: J01674  
 Report No. : 54359  
 COC No. : RC-074-451

Collection Date: 1/18/2013 12:24:00 PM  
 Received Date: 1/21/2013 10:55:00 AM  
 Matrix: SOIL

Parameter	Result	Count	Uncert(2 s)	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: 3021062	7196 CR6			Work Order: MXXATTAC				Report DB ID: 9MXXAT10				
HEXCHROME	2.92E-01	0.0E+00	1.55E-01	mg/kg	N/A	N/A	(1.9)	1/21/13 03:45 p		2.5775	g	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-7  
 Client Sample ID: J1RCM3

SDG: J01674  
 Report No.: 54359  
 COC No.: RC-074-451

Collection Date: 1/18/2013 12:55:00 PM  
 Received Date: 1/21/2013 10:55:00 AM  
 Matrix: SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196 CR6	Work Order: MXXAV/VAC	Uncert(2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
HEXCHROME	3.33E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.1)	1/21/13 03:45 p	2.547	g	g	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-8  
**Client Sample ID:** J1RCM4

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 12:54:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/(RL)	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196 CR6	Work Order: MXAAW1AC	Uncert(2 s)	MXAAW1AC	Report DB ID: 9MXAAW10						
HEXCHROME	3.14E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.)	1/21/13 03:45 p		2.5783	g	

No. of Results: 1      Comments:

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

**Date:** 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-9  
**Client Sample ID:** J1RCM5

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 12:58:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Qual	Count	Error (2 s)	Total	MDL,	Rpt Unit, Lc	Yield	Rst/MDL, Rst/(RL)	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196 CR6				Work Order: MXXAXX1AC		Report DB ID: 9MXXAXX10						
HEXCROME	2.96E-01				0.0E+00	1.55E-01	mg/kg	N/A	(1.9)	1/21/13 03:45 p	2.4953	g	

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

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-10  
 Client Sample ID: J1RCM7

Parameter	Result	Count	Total	MDL,	Rpt Unit, Lc	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196_CRG	Work Order: MXXA01AC	Uncert(2 s)	Action Lev	CRDL(RL)	Report DB ID: 9MXXA010					
HEXCHROME	6.71E-01	0.0E+00	1.55E-01	mg/kg	N/A	(4.3)	1/21/13 03:45 p	2.5907			g

No. of Results: 1      Comments:

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-11  
**Client Sample ID:** J1RCM8

**SDG:** J01674  
**Report No.:** 54359  
**COC No.:** RC-074-451

**Collection Date:** 1/18/2013 12:47:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** Soil

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: 3021062	7196 CR6	Work Order: MXXA11AC	Report DB ID: 9MXXA110								
HEXCHROME	4.24E-01	0.00E+00	1.55E-01	mg/kg	N/A	(2.7)	1/21/13 03:45 p	2.5411	N/A	g	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-12  
**Client Sample ID:** J1RCM9

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-451

**Collection Date:** 1/18/2013 12:50:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	Rpt Unit,	Yield	Rst/MDL,	Analysis,	Total Sa	Aliquot	Primary
		Qual	Uncert(2 s)	Action Lev	CRDL(LC)	Rst/TotUncert	Prep Date	Size	Size	Detector
Batch: 3021062	7196 CR6	Work Order: MXXA21AC	Report DB ID: 9MXXA210							
HEXCHROME	3.90E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.5)	1/21/13 03:45 p	2.583		
					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.:** J3A210428-13  
**Client Sample ID:** J1RCN1

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/TotUncert	Prep Date	Size	Size	Detector
Batch: 3021062	7196_CRG			Work Order: MXXA31AC		Report DB ID: 9MXXA310						
HEXCHROME	3.72E-01			0.0E+00	1.55E-01	mg/kg	N/A	(2.4)	1/21/13 03:45 p			
							1.55E-01	N/A				
No. of Results:	1			Comments:								

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-14  
 Client Sample ID: J1RCN2

SDG: J01674  
 Report No.: 54359  
 COC No.: RC-074-451

Collection Date: 1/18/2013 12:33:00 PM  
 Received Date: 1/21/2013 10:55:00 AM

Matrix: SOIL

Parameter	Result	Count	Error (2 s)	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: 3021062	7196 CR6			Work Order: MXXAA41AC	MXXAA41AC	Report DB ID: 9MXXAA410			1/21/13 03:45 p			
HEXCHROME	4.43E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.9)	1.55E-01	N/A		2.5285	g	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-15  
 Client Sample ID: J1RCN3

SDG: J01674  
 Report No.: 54359  
 COC No.: RC-074-451

Collection Date: 1/18/2013 12:30:00 PM  
 Received Date: 1/21/2013 10:55:00 AM  
 Matrix: SOIL

Parameter	Result	Count	Error (2 s)	Total	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196_CRG	Work Order: MXXA51AC							Report DB ID: 9MXXA510			
HEXCHROME	4.87E-01	0.0E+00	1.55E-01	mg/kg	N/A	(3.1)	1.55E-01	N/A	1/21/13 03:45 p	2.4976	g	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210429-1  
**Client Sample ID:** J1RCN5

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-452

**Collection Date:** 1/18/2013 12:39:00 PM  
**Received Date:** 1/21/2013 10:55:00 AM  
**Matrix:** SOIL

Parameter	Result	Count	Total	MDL, Action Lev	Rpt Unit, Lc	Yield	Rst/MDL, Rst/(RL)	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196 CR6	Work Order: MXXCC1AC	Report DB ID: 9MXXCC10								
HEXCHROME	3.63E-01	0.0E+00	1.55E-01	mg/kg	N/A	(2.3)	1/21/13 03:45 p		2.5387	g	

No. of Results: 1      Comments:

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210429-2  
 Client Sample ID: J1RCN6

SDG: J01674  
 Report No.: 54359  
 COC No.: RC-074-452

Collection Date: 1/18/2013 12:40:00 PM  
 Received Date: 1/21/2013 10:55:00 AM  
 Matrix: SOIL

Ordered by Client Sample ID, Batch No.

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: 3021062	7196_CR6		Work Order: MXXCD1AC			Report DB ID: 9MXXCD10					
HEXCROME	4.64E-01	0.0E+00	1.55E-01	mg/kg	N/A	(3.)	1/21/13 03:45 p		2.536		g

No. of Results: 1      Comments:

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

Date: 25-Jan-13

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210429-3  
**Client Sample ID:** J1RCN7

**SDG:** J01674  
**Report No. :** 54359  
**COC No. :** RC-074-452

**Collection Date:** 1/18/2013 12:36:00 PM  
**Received Date:** 1/21/2013 10:55:00 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: 3021062	7196 CR6	Work Order: MXXCE1AC	Report DB ID: 9MXXCE10								
HEXCROME	2.75E-01	0.0E+00	1.55E-01	mg/kg	N/A	(1.8)	1/21/13 03:45 p		2.5853	g	

No. of Results: 1      Comments:

**FORM II**

Date: 25-Jan-13

**DUPLICATE RESULTS**

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A240405-1  
**Client Sample ID:** J1R995

Parameter	Result, Orig Rst	Count	Total Uncert(2 s)	MDL, Action Lev	Rpt Unit, CRDL	Rst/MDL, Yield	Rst/TotUncert	Report DB ID: MXX5D1ER	Analysis, Prep Date	Total Sa Size	Alicquot Size	Primary Detector
Batch: 3024030 HEXCHROME	7196_CR6 4.05E-01	Work Order: MXX5D1AM 0.0E+00	1.55E-01	mg/kg	N/A	(2.6)	N/A	Orig Sa DB ID: 9MXX5D10	1/24/13 10:00 a	2.5008		
	3.03E-01	RPD 28.8	3.00E-01	3.50E-01	N/A	N/A	N/A			g		

No. of Results: 1      Comments:

**FORM II**

Date: 25-Jan-13

**DUPLICATE RESULTS**

**Lab Name:** TestAmerica  
**Lot-Sample No.:** J3A210428-1  
**Client Sample ID:** J1RCL5

Parameter	Result, Orig Rst	Count	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: 3021062	7196_CR6	Work Order: MXXAK1CF		Report DB ID: MXXAK1ER		Orig Sa DB ID: 9MXXAK10				
HEXCHROME	2.69E-01 3.70E-01	0.0E+00 RPD 31.6	1.55E-01 3.50E-01	mg/kg N/A	(1.7) N/A	1/21/13 03:45 p		2.5/24 g		

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**  
**BLANK RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Matrix: SOIL

Parameter	Result	Qual	Count	Total	MDL,	Rpt Unit, CRDL	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 3021062	7196_CR6		Work Order: MXXDQ1AA		Report DB ID: MXXDQ1AB						
HEXCHROME	1.55E-01	U	0.0E+00	1.55E-01	mg/kg	N/A	1.	1/21/13 03:45 p			2.5
						1.55E-01	N/A				g
Batch: 3024030	7196_CR6		Work Order: MXX6G1AA		Report DB ID: MXX6G1AB						
HEXCHROME	1.55E-01	U	0.0E+00	1.55E-01	mg/kg	N/A	1.	1/24/13 10:00 a			2.5
						1.55E-01	N/A				g

No. of Results: 2      Comments:

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Matrix: SOIL

SDG: J01674  
 Report No.: 54359

Parameter	Result	Count	Total	Report Unit	Yield	Expected	Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 3021062 HEXCHROME	7196_CR6 1.93E+01	Work Order: MXXDQ1AC 0.0E+00	1.55E-01 mg/kg	Report DB ID: MXXDQ1AS N/A	1.90E+01	N/A	0.0	102%	1/21/13 03:45 p	2.5 g	
Batch: 3024030 HEXCHROME	7196_CR6 1.89E+01	Work Order: MXX6G1AC 0.0E+00	1.55E-01 mg/kg	Report DB ID: MXX6G1AS N/A	1.90E+01	N/A	0.0	99%	1/24/13 10:00 a	2.5 g	
No. of Results: 2	Comments:										

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.  
 rptSTL.Rch.lcs  
 V5.2.23 A2002

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

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A210428-1, J1RCL5

SDG: J01674

Report No. : 54359

Parameter	SpikeResult, Orig Rst	Count	Total	Rpt Unit, CRDL	Rec- covery	Expected, Uncert	Analysis, Prep Date	Aiquot Size	Analy Method, Primary Detector
Batch: 3021062 HEXCHROME	Work Order: MXAK1CE 2.98E+01	Report DB ID: MXAK1CW 0.0E+00	Orig Sa DB ID: 9MXAK10 1.55E-01 mg/kg	Yield N/A	Recov- ery 92.04%	Expected, Uncert 3.24E+01	Analysis, Prep Date 1/21/13 03:45 p	2.487 g	Analy Method, Primary Detector 7196_CR6
Number of Results: 1	Comments:								

TestAmerica rptSTLRchMs V5.2.23 A2002	RER Bias	- Replicate Error Ratio = $(S-D)/[\sqrt{(\sum(TPUs)+s^2(TPUs))}]$ as defined by ICPT BOA. - (Result/Expected)-1 as defined by ANSI N13.30.
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**FORM II**  
**MATRIX SPIKE RESULTS**

Date: 25-Jan-13

Lab Name: TestAmerica  
 Lot-Sample No.: J3A240405-1, J1R995

SDG: J01674  
 Report No.: 54359

Parameter	SpikeResult, Orig Rst	Count	Total Uncert(2 s)	Rpt Unit, CRDL	Yield	Rec- covery	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 3024030	Work Order: MX5D1AL	Report DB ID: MX5D1CW	0.0E+00	1.55E-01	Orig Sa DB ID: 9MX5D10	N/A	89.40%	3.04E+01	1/24/13 10:00 a	2.5
HEXCHROME	2.71E+01		3.03E-01							7196_CR6

Number of Results: 1

Comments:

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



Client_id	Result_Cas_nbr	Parameter	Qualifier	Units	Reporting_Limits_S	Reporting_Limits_U	Limits	Uncertainty_1s	Analyzed	Analyst	Decision_Level_LC	LCSRecoAdd/Analysis_date/time	Batch_nbr	Test_MetLab	sample_id
JRCM5	CS	7440-41-7	Beryllium	UG/G	9.20E-02	9.90E-02	1.60E-02	0.2526 G	1.30E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM5	SOIL	7440-41-7	Cadmium	UG/G	1.65E-01	1.98E-01	0.98E-00	0.2526 G	1.20E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM5	SOIL	7440-47-3	Chromium	UG/G	6.62E+00	9.90E+00	9.90E+00	0.2526 G	6.85E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM5	SOIL	7439-92-1	Lead	UG/G	9.36E+00	9.90E+00	9.90E+00	0.2526 G	2.46E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM5	SOIL	7782-49-2	Se	UG/G	3.14E-01	5.90E-00	5.90E-00	0.2526 G	4.14E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-22-4	Ag	UG/G	-1.29E-01	U	1.29E-01	0.2491 G	9.47E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-38-2	As	UG/G	1.38E+00	U	1.38E+00	0.2491 G	1.30E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-39-3	Ba	UG/G	7.59E+01	U	7.59E+01	0.2491 G	1.03E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-41-7	Beryllium	UG/G	2.10E-01	U	1.00E-01	0.2491 G	7.50E-03				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-43-9	Cadmium	UG/G	1.60E-01	U	1.60E-01	0.2491 G	1.12E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-47-3	Chromium	UG/G	1.22E-01	U	1.00E-01	0.2491 G	4.69E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7439-92-1	Lead	UG/G	3.58E+00	U	3.58E+00	0.2491 G	2.48E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7782-49-2	Se	UG/G	-1.81E-01	U	1.81E-01	0.2491 G	2.59E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-22-4	Ag	UG/G	-2.95E-01	U	1.20E-01	0.2491 G	1.14E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-38-2	As	UG/G	1.28E+00	U	1.28E+00	0.2491 G	4.77E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-39-3	Ba	UG/G	5.49E+01	U	5.49E+01	0.2491 G	8.16E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7440-41-7	Beryllium	UG/G	1.90E-01	U	1.00E-01	0.2491 G	1.34E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM7	SOIL	7439-92-1	Lead	UG/G	1.32E-01	U	1.32E-01	0.2491 G	1.31E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-43-9	Cadmium	UG/G	8.91E+00	U	8.91E+00	0.2491 G	1.23E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7439-92-1	Lead	UG/G	2.66E+00	U	2.66E+00	0.2493 G	1.02E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7782-49-2	Se	UG/G	-1.24E-01	U	1.24E-01	0.2493 G	2.74E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-22-4	Ag	UG/G	-2.24E-01	U	1.00E-01	0.2493 G	1.38E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-38-2	As	UG/G	1.78E+00	U	1.78E+00	0.2493 G	5.10E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-43-9	Cadmium	UG/G	7.16E+01	U	7.16E+01	0.2493 G	1.13E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-47-3	Chromium	UG/G	2.00E+00	U	2.00E+00	0.2493 G	5.65E-03				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7439-92-1	Lead	UG/G	1.34E-01	U	1.34E-01	0.2493 G	2.10E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7782-49-2	Se	UG/G	3.38E+00	U	3.38E+00	0.2493 G	1.02E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-22-4	Ag	UG/G	-2.04E-01	U	1.00E-01	0.2493 G	2.20E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-38-2	As	UG/G	6.21E+01	U	6.21E+01	0.2493 G	3.70E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-41-7	Beryllium	UG/G	1.98E+00	U	1.98E+00	0.2493 G	1.54E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-43-9	Cadmium	UG/G	1.22E+01	U	1.22E+01	0.2493 G	0.252 G				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-47-3	Chromium	UG/G	7.57E+00	U	7.57E+00	0.2493 G	1.23E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7439-92-1	Lead	UG/G	3.58E-01	U	1.90E-01	0.2493 G	1.30E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7782-49-2	Se	UG/G	2.04E-01	U	1.00E-01	0.2493 G	1.40E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-22-4	Ag	UG/G	2.11E-01	U	1.00E-01	0.2493 G	4.40E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCM8	SOIL	7440-35-3	Ba	UG/G	1.53E+00	U	1.53E+00	0.2493 G	3.62E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-41-7	Beryllium	UG/G	1.98E+01	U	1.98E+01	0.2493 G	6.31E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-43-9	Cadmium	UG/G	1.22E+01	U	1.22E+01	0.2493 G	2.63E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-47-3	Chromium	UG/G	2.00E+00	U	2.00E+00	0.2493 G	2.80E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7439-92-1	Lead	UG/G	1.96E-01	U	1.96E-01	0.2493 G	1.25E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7782-49-2	Se	UG/G	2.28E-01	U	1.92E-00	0.2493 G	4.63E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-22-4	Ag	UG/G	2.01E+00	U	1.92E+00	0.2493 G	5.80E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-35-3	Ba	UG/G	6.21E+01	U	6.21E+01	0.2493 G	4.40E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-39-3	Ber	UG/G	1.53E+00	U	1.53E+00	0.2493 G	3.44E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-41-7	Beryllium	UG/G	6.13E+01	U	6.13E+01	0.2493 G	3.44E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-43-9	Cadmium	UG/G	1.96E+01	U	1.96E+01	0.2493 G	3.44E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-47-3	Chromium	UG/G	1.19E+01	U	1.19E+01	0.2493 G	1.01E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7439-92-1	Lead	UG/G	2.92E+00	U	2.92E+00	0.2493 G	3.50E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7782-49-2	Se	UG/G	-7.97E-01	U	1.01E-01	0.2493 G	7.07E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-22-4	Ag	UG/G	2.02E+00	U	1.01E-01	0.2493 G	2.02E+00				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-38-2	As	UG/G	1.21E+00	U	1.01E-01	0.2493 G	1.50E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-39-3	Ba	UG/G	6.31E+01	U	6.31E+01	0.2493 G	2.02E+00				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-41-7	Beryllium	UG/G	2.09E-01	U	1.01E-01	0.2493 G	1.47E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-43-9	Cadmium	UG/G	1.26E+01	U	1.01E-01	0.2493 G	2.88E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-47-3	Chromium	UG/G	7.72E+00	U	1.01E-01	0.2493 G	2.47E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7439-92-1	Lead	UG/G	2.78E+00	U	1.01E-01	0.2493 G	2.47E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7782-49-2	Se	UG/G	-4.28E-01	U	1.01E-01	0.2493 G	1.47E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-38-3	Ba	UG/G	6.27E+01	U	6.27E+01	0.2493 G	3.43E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-41-7	Beryllium	UG/G	2.06E-01	U	1.01E-01	0.2493 G	1.94E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-43-9	Cadmium	UG/G	1.27E+01	U	1.01E-01	0.2493 G	2.28E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-47-3	Chromium	UG/G	6.04E+00	U	9.90E+00	0.2493 G	4.60E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7439-92-1	Lead	UG/G	2.75E+00	U	9.90E+00	0.2493 G	5.15E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7782-49-2	Se	UG/G	-4.78E-01	U	1.01E-01	0.2493 G	5.07E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-38-3	Ba	UG/G	1.80E+00	U	1.98E+00	0.2493 G	6.70E-02				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-41-7	Beryllium	UG/G	2.02E-01	U	9.90E+00	0.2493 G	1.73E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-43-9	Cadmium	UG/G	1.43E+01	U	1.43E+01	0.2493 G	3.47E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7440-47-3	Chromium	UG/G	3.08E+00	U	2.00E+00	0.2493 G	3.55E-01				1/22/2013	3021047 46DQ	MXXXA1IA
JRCN1	SOIL	7439-92-1	Lead	UG/G	2.02E+00	U	2.02E+00	0.2493 G	2.2325 G				1/22/2013	3021047 46DQ	MXXXD1IA
JRCN1	SOIL	7782-49-2	Se	UG/G	-1.67E-01	U	1.01E-01	0.2493 G	1.40E-01				1/22/2013	3021047 46DQ	MXXXD1IA
JRCN1	SOIL	7440-38-3	Ba	UG/G	6.28E+01	U	6.28E+01	0.2493 G	2.825 G				1/22/2013	3021047 46DQ</	

Client_id	Result_lCas_nor	Parameter	Result	Qualifier	Units	Reporting_Limits_S	Reporting_Limits_U	Limits	Uncertainty_1s	Analyzed	Decision_level	LCSTest	Lab	MetLab	sample_id	Batch nbr	Test	Analysis date	time		
J1RCN7	CS	7439-32-1	Lead	2.39E+00	U	UG/G	9.92E+00	9.92E+00	4.60E-01	0.252 G	3.77E-01	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/22/2013 1:35	3021047 46DQ	1/22/2013 1:35	3021047 46DQ	1/22/2013 1:35		
INTRA-LAB BLANK	SOIL	CS	7782-49-2	Se	2.87E+01	U	UG/G	9.92E+00	9.92E+00	1.40E-01	0.252 G	1.18E-01	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/22/2013 1:35	3021047 46DQ	1/22/2013 1:35	3021047 46DQ	1/22/2013 1:35	
INTRA-LAB BLANK	SOIL	BLK	7440-22-4	Ag	3.49E-05	U	Mg/L	5.00E-02	5.00E-02	3.70E-04	0.2515 L	3.04E-04	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7440-38-2	As	4.78E-04	U	Mg/L	5.00E-02	5.00E-02	1.40E-03	0.2515 L	1.11E-03	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7440-39-3	Ba	-1.01E-05	U	Mg/L	1.00E-02	1.00E-02	1.40E-05	0.2515 L	1.12E-05	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7440-41-7	Beryllium	2.86E-05	U	Mg/L	5.00E-04	5.00E-04	4.20E-05	0.2515 L	3.42E-05	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7440-43-9	Cadmium	1.03E-04	U	Mg/L	1.00E-02	1.00E-02	1.10E-04	0.2515 L	8.75E-05	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7440-47-3	Chromium	8.18E-05	U	Mg/L	5.00E-02	5.00E-02	2.00E-04	0.2515 L	1.62E-04	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7439-32-1	Lead	-6.33E-04	U	Mg/L	5.00E-02	5.00E-02	6.50E-04	0.2515 L	6.95E-04	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB BLANK	SOIL	BLK	7782-49-2	Se	1.37E-03	U	Mg/L	5.00E-02	5.00E-02	7.10E-04	0.2515 L	5.86E-04	3021047 46DQ	MXCCR1AA	MXCCR1AA	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	3021047 46DQ	1/21/2013 23:25	
INTRA-LAB CHECK	SOIL	LCS	7440-22-4	Ag	9.61E-01	U	Mg/L	5.00E-02	5.00E-02	2.50E-03	0.2456 L	2.03E-03	0.96	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7440-38-2	As	9.57E-01	U	Mg/L	5.00E-02	5.00E-02	4.00E-03	0.2456 L	4.09E-03	0.96	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7440-39-3	Ba	1.03E-00	U	Mg/L	1.00E-02	1.00E-02	4.60E-03	0.2456 L	3.75E-03	0.96	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7440-41-7	Beryllium	9.62E-01	U	Mg/L	5.00E-04	5.00E-04	1.00E-03	0.2456 L	8.49E-04	0.96	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7440-43-9	Cadmium	9.30E-01	U	Mg/L	1.00E-02	1.00E-02	1.00E-03	0.2456 L	8.55E-04	0.93	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7440-47-3	Chromium	9.67E-01	U	Mg/L	5.00E-02	5.00E-02	4.50E-03	0.2456 L	3.71E-03	0.97	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7439-32-1	Lead	9.46E-01	U	Mg/L	5.00E-02	5.00E-02	1.00E-03	0.2456 L	8.41E-04	0.95	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	LCS	7782-49-2	Se	8.63E-01	U	Mg/L	5.00E-02	5.00E-02	4.90E-03	0.2456 L	3.99E-03	0.88	1	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28	3021047 46DQ	1/21/2013 23:28		
INTRA-LAB CHECK	SOIL	DUP	7440-22-4	Ag	-1.55E-01	U	UG/G	1.01E-01	1.01E-01	5.40E-03	0.2487 G	4.48E-03	3.22E-01	0.96	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
INTRA-LAB CHECK	SOIL	DUP	7440-38-2	As	1.01E+00	U	UG/G	1.01E-01	1.01E-01	3.90E-01	0.2487 G	5.40E-01	5.40E-01	0.96	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
INTRA-LAB CHECK	SOIL	DUP	7440-39-3	Ba	5.91E-01	U	UG/G	2.01E-00	2.01E-00	6.80E-01	0.2487 G	6.82E-01	6.82E-01	0.96	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
INTRA-LAB CHECK	SOIL	DUP	7440-41-7	Beryllium	1.96E-01	U	UG/G	1.01E-01	1.01E-01	3.20E-02	0.2487 G	3.60E-02	2.38E+00	1.06	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
INTRA-LAB CHECK	SOIL	DUP	7440-43-9	Cadmium	1.37E-01	U	UG/G	2.01E-00	2.01E-00	4.40E-02	0.2487 G	4.70E-02	2.48E-02	0.98	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
INTRA-LAB CHECK	SOIL	DUP	7440-47-3	Chromium	5.81E+00	U	UG/G	1.01E-01	1.01E-01	1.00E-01	0.2487 G	8.32E-02	1.97E-02	0.93	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
J1RC15 DUP	SOIL	BLK	7439-32-1	Lead	2.11E+00	U	UG/G	1.01E-01	1.01E-01	4.60E-01	0.2487 G	3.24E-01	1.97E-02	0.95	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
J1RC15 DUP	SOIL	BLK	7782-49-2	Se	-1.49E+01	U	UG/G	1.01E-01	1.01E-01	9.83E+00	0.2543 L	2.49E-01	1.97	0.96	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
J1RC15 DUP	SOIL	BLK	7440-22-4	Ag	1.37E-02	U	% RECC	9.83E+00	9.83E+00	8.30E-01	0.2543 L	6.82E-01	1.97	0.96	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	
J1RC15 DUP	SOIL	BLK	7440-38-2	As	1.38E-02	U	% RECC	9.83E+00	9.83E+00	1.97E-00	0.2543 L	2.38E+00	1.06	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51		
J1RC15 DUP	SOIL	BLK	7440-39-3	Ba	2.08E-02	U	% RECC	9.83E+00	9.83E+00	9.80E+00	0.2543 L	8.05E-01	0.98	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51		
J1RC15 DUP	SOIL	BLK	7440-41-7	Beryllium	1.93E-02	U	% RECC	9.83E+00	9.83E+00	1.97E-00	0.2543 L	3.10E-01	0.93	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51		
J1RC15 DUP	SOIL	BLK	7440-43-9	Cadmium	1.83E-02	U	% RECC	9.83E+00	9.83E+00	7.90E-01	0.2543 L	6.46E-01	0.96	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51		
J1RC15 DUP	SOIL	BLK	7439-92-1	Lead	1.81E-02	U	% RECC	9.83E+00	9.83E+00	4.70E-01	0.2543 L	3.85E-01	0.92	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51		
J1RC15 DUP	SOIL	BLK	7782-49-2	Se	1.75E-02	U	% RECC	9.83E+00	9.83E+00	4.00E-02	0.2543 L	3.29E-02	0.89	1	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51	3021047 46DQ	1/21/2013 23:51		
J1RC15 DUP	SOIL	BLK	7440-22-4	Ag	1.87E-02	U	% RECC	1.00E+01	1.00E+01	1.60E+00	0.2497 L	1.34E+00	0.93	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	
J1RC15 DUP	SOIL	BLK	7440-38-2	As	1.87E-02	U	% RECC	1.00E+01	1.00E+01	2.10E+00	0.2497 L	1.69E+00	0.93	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	
J1RC15 DUP	SOIL	BLK	7440-41-7	Beryllium	1.89E-02	U	% RECC	1.00E+01	1.00E+01	2.00E+00	0.2497 L	2.30E-01	1.91E-01	1.02	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47
J1RC15 DUP	SOIL	BLK	7440-43-9	Cadmium	1.81E-02	U	% RECC	1.00E+01	1.00E+01	2.00E+00	0.2497 L	5.43E-01	0.95	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	
J1RC15 DUP	SOIL	BLK	7440-47-3	Chromium	1.87E-02	U	% RECC	1.00E+01	1.00E+01	3.80E-01	0.2497 L	4.41E-01	0.93	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	
J1RC15 DUP	SOIL	BLK	7439-92-1	Lead	1.78E-02	U	% RECC	1.00E+01	1.00E+01	9.30E-01	0.2497 L	7.64E-01	0.89	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	
J1RC15 DUP	SOIL	BLK	7782-49-2	Se	1.72E-02	U	% RECC	1.00E+01	1.00E+01	5.50E-01	0.2497 L	4.55E-01	0.86	200	1	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	3021047 46DQ	1/21/2013 23:47	

Client_id	Matrix	Result_1Cas_nbr	Parameter	Result	Qualifier	Units	Reporting_Limits_SReporting_Limits	Uncertainty_1s	Analyzed_AnalyzDecision_level	LCSRecdAddedAnalysis_date_time	Batch_nbr	Test_MeLab_sample_id
J1R995	SOIL	CS	7440-22-4	Ag	2.21E+01 U	UG/G	9.98E+00	2.30E-01	1.88E-01	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-38-2	As	8.08E+01	UG/G	9.98E+00	2.20E-01	0.2506 G	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-39-3	Beryllium	2.53E-01	UG/G	9.98E-02	2.20E-02	0.2506 G	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-41-7	Cadmium	1.46E+01 U	UG/G	2.00E+00	3.80E-02	0.2506 G	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-47-3	Chromium	8.55E+00 U	UG/G	9.98E+00	4.00E-01	0.2506 G	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-52-1	Lead	3.75E+01 U	UG/G	9.98E+00	6.50E-01	0.2506 G	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7782-49-2	Se	1.31E+01 U	UG/G	9.98E+00	3.70E-01	0.2506 G	1/24/2013 19:49	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-22-4	Ag	2.68E+01 U	UG/G	9.92E+00	2.40E-01	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7782-49-2	As	2.24E+00 U	UG/G	9.92E+00	3.10E-01	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-39-3	Ba	7.46E+01	UG/G	1.98E+00	2.20E-01	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-41-7	Beryllium	2.51E+01	UG/G	9.92E-02	1.30E-03	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-43-9	Cadmium	1.41E+01 U	UG/G	1.98E+00	3.50E-02	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7440-47-3	Chromium	8.63E+00 U	UG/G	9.92E+00	1.70E-01	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7439-92-1	Lead	3.33E+00 U	UG/G	9.92E+00	6.60E-02	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	CS	7782-49-2	Se	4.30E+01 U	UG/G	9.92E+00	4.80E-01	0.252 G	1/24/2013 20:08	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-22-4	Ag	8.61E-04 U	Mg/L	5.00E-02	2.60E-04	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-38-2	As	8.53E-04 U	Mg/L	5.00E-02	3.40E-03	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-39-3	Ba	8.03E-05 U	Mg/L	1.00E-02	7.00E-02	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-41-7	Beryllium	8.12E-05 U	Mg/L	5.00E-04	5.50E-05	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-43-9	Cadmium	2.22E-05 U	Mg/L	1.00E-02	1.00E-02	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-47-3	Chromium	-2.65E-05 U	Mg/L	5.00E-02	7.20E-04	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-52-1	Lead	4.72E-04 U	Mg/L	5.00E-02	1.60E-03	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7782-49-2	Se	3.03E-04 U	Mg/L	5.00E-02	5.70E-04	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-22-4	Ag	9.44E-01	Mg/L	5.00E-02	8.60E-03	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-38-2	As	9.56E-01	Mg/L	5.00E-02	5.00E-02	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-39-3	Ba	1.90E-00	Mg/L	1.00E-02	1.00E-02	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-41-7	Beryllium	9.53E-01	Mg/L	5.00E-04	1.10E-02	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-43-9	Cadmium	1.00E-02	Mg/L	5.00E-02	5.50E-02	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-47-3	Chromium	2.23E-01	Mg/L	1.00E-02	1.60E-03	0.2538 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7782-49-2	Se	1.32E-01	Mg/L	5.00E-02	2.60E-03	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-22-4	Ag	2.14E-01 U	UG/G	9.98E+00	9.98E+00	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-38-2	As	1.95E+00 U	UG/G	9.98E+00	9.98E+00	0.2533 L	1/24/2013 19:36	3024033 46DQ	MX62AA
J1R995	SOIL	BLK	7440-39-3	Ba	8.23E-01	UG/G	9.98E-02	2.00E-00	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-41-7	Cadmium	1.49E-01 U	UG/G	9.98E-02	1.49E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-43-9	Chromium	8.32E-01 U	UG/G	9.98E-02	9.98E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-47-3	Lead	3.18E-00 U	UG/G	9.98E+00	6.30E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7782-49-2	Se	7.25E-01 U	UG/G	9.98E+00	4.90E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-22-4	Ag	8.23E-01	UG/G	2.00E+00	2.40E-00	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-38-2	Beryllium	1.49E-01	UG/G	9.98E-02	3.60E-03	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-39-3	Cadmium	2.01E+00 U	UG/G	9.98E-02	7.30E-02	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-41-7	Chromium	1.94E-01 U	UG/G	9.98E-02	1.90E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-43-9	Lead	3.18E-00 U	UG/G	9.98E+00	6.30E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7782-49-2	Se	7.25E-01 U	UG/G	9.98E+00	4.90E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-22-4	Ag	1.91E-02	% REC	2.00E+00	2.40E+00	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-38-2	Beryllium	1.49E-01	% REC	1.01E-01	2.90E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-39-3	Cadmium	1.94E-02	% REC	1.01E-01	2.04E-00	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-41-7	Chromium	1.94E-02	% REC	1.01E-01	2.04E-00	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7440-43-9	Lead	3.18E-00 U	UG/G	9.98E+00	1.01E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	BLK	7782-49-2	Se	7.25E-01 U	UG/G	9.98E+00	1.01E-01	0.2506 G	1/24/2013 19:36	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-22-4	Ag	1.91E-02	% REC	1.01E-01	2.48E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-38-2	Beryllium	1.49E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-39-3	Cadmium	1.94E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-41-7	Chromium	1.94E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-43-9	Lead	3.18E-00 U	UG/G	9.98E+00	1.00E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7782-49-2	Se	7.25E-01 U	UG/G	9.98E+00	1.00E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-22-4	Ag	1.96E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-38-2	Beryllium	1.50E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-39-3	Cadmium	1.98E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-41-7	Chromium	1.98E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-43-9	Lead	3.18E-00 U	UG/G	9.98E+00	1.00E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7782-49-2	Se	7.25E-01 U	UG/G	9.98E+00	1.00E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-22-4	Ag	1.81E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-38-2	Beryllium	1.81E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-39-3	Cadmium	1.84E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-41-7	Chromium	1.84E-02	% REC	1.00E-01	2.498 L	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7440-43-9	Lead	3.18E-00 U	UG/G	9.98E+00	1.00E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0
J1R995	SOIL	MS	7782-49-2	Se	7.25E-01 U	UG/G	9.98E+00	1.00E-01	0.2487 L	1/24/2013 19:54	3024033 46DQ	MX5DIA0

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

Batch Number(s):	3021062	Lab Sample Numbers or SDG:	J01674	
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?			✓	✗
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 11/21/13 2<sup>nd</sup> Review

Date 11/22/13

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

Batch Number(s):	3024030	Lab Sample Numbers or SDG:	J01674	
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: 1/25/13 2<sup>nd</sup> Review

Reviewed on 1/25/13

Reviewer:   
Date: 1/25/13

Lot No., Due Date: J3A210428,J3A210429; 01/22/2013  
 Client, Site: 127642; S00X235B00 HANFORD  
 QC Batch No., Method Test: 3021047; M6010\_S 6010A  
 SDG, Matrix: J01674; SOIL

#### 1.0 Initial Calibration

- 1.1 Performed at required frequency with required number of levels?  Yes  No  N/A  2nd
- 1.2 Correlation coefficient within QC limits?  Yes  No  N/A  2nd
- 1.3 Initial calibration verification (ICV) analyzed immediately after calibr. and results within QC limits of +/- 10% at 0.75 ppm?  Yes  No  N/A  2nd
- 1.4 ICB analyzed immediately after ICV and concentration of all parameters +/- report limit from zero? RL per RadCalc.  Yes  No  N/A  2nd

#### 2.0 Continuing Calibration

- 2.1 CCV analyzed at required frequency and all parameters within QC limits or +/- 10% at 0.7500 ppm?  Yes  No  N/A  2nd
- 2.2 CCB analyzed at required frequency and all results +/- reporting limit from zero?  Yes  No  N/A  2nd

#### 3.0 Sample Analysis

- 3.1 Were any samples with concentration above the linear range diluted and reanalyzed?  Yes  No  N/A  2nd
- 3.2 Were all sample holding times met?  Yes  No  N/A  2nd

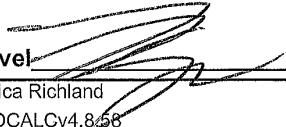
#### 4.0 QC Samples

- 4.1 All results for the preparation blank < reporting limits?  Yes  No  N/A  2nd
- 4.2 MS or MS/MSD recoveries within 20% at 1 ppm and within 20% RPD (for MSD)?  Yes  No  N/A  2nd
- 4.3 LCS precent recovery within 20% at 1 ppm and 20% RPD (for LCSD)?  Yes  No  N/A  2nd
- 4.4 Analytical spikes within QC limits where applicable?  Yes  No  N/A  2nd
- 4.5 ICP only: One serial dilution performed and within 10% of parent per SDG?  Yes  No  N/A  2nd
- 4.6 ICP only: RLV run per batch and within 20% of current values?  Yes  No  N/A  2nd
- 4.7 ICP only: ICSA,ICSAB analyzed at the required frequencies and within 20% of values per dilution record?  Yes  No  N/A  2nd

#### 5.0 Other

- 5.1 Are all nonconformances included and noted?  Yes  No  N/A  2nd
- 5.2 Is the correct date and time of analysis shown?  Yes  No  N/A  2nd
- 5.3 Did the analyst sign and date the digestion log for the analytical run?  Yes  No  N/A  2nd
- 5.4 Correct methodology used?  Yes  No  N/A  2nd
- 5.5 Transcriptions checked?  Yes  No  N/A  2nd
- 5.6 Calculations checked at minimum frequency?  Yes  No  N/A  2nd
- 5.7 Units checked?  Yes  No  N/A  2nd
- 5.8 Verified that appropriate data transferred to ReportDB?  Yes  No  N/A  2nd

#### 6.0 Comments on any 'No' response:

First Level   
 TestAmerica Richland  
 QAS\_RADCALCv4.856

Date 1/22/13

Second   
 Date 1/22/13

Page 1

**Lot No., Due Date:** J3A240405; 01/25/2013  
**Client, Site:** 127642; S00X235B00 HANFORD  
**QC Batch No., Method Test:** 3024033; M6010\_S 6010A  
**SDG, Matrix:** J01674; SOIL

#### 1.0 Initial Calibration

- 1.1 Performed at required frequency with required number of levels?  Yes  No  N/A  2nd
- 1.2 Correlation coefficient within QC limits?  Yes  No  N/A  2nd
- 1.3 Initial calibration verification (ICV) analyzed immediately after calibr. and results within QC limits of +/- 10% at 0.75 ppm?  Yes  No  N/A  2nd
- 1.4 ICB analyzed immediately after ICV and concentration of all parameters +/- report limit from zero? RL per RadCalc.  Yes  No  N/A  2nd

#### 2.0 Continuing Calibration

- 2.1 CCV analyzed at required frequency and all parameters within QC limits or +/- 10% at 0.7500 ppm?  Yes  No  N/A  2nd
- 2.2 CCB analyzed at required frequency and all results +/- reporting limit from zero?  Yes  No  N/A  2nd

#### 3.0 Sample Analysis

- 3.1 Were any samples with concentration above the linear range diluted and reanalyzed?  Yes  No  N/A  2nd
- 3.2 Were all sample holding times met?  Yes  No  N/A  2nd

#### 4.0 QC Samples

- 4.1 All results for the preparation blank < reporting limits?  Yes  No  N/A  2nd
- 4.2 MS or MS/MSD recoveries within 20% at 1 ppm and within 20% RPD (for MSD)?  Yes  No  N/A  2nd
- 4.3 LCS precent recovery within 20% at 1 ppm and 20% RPD (for LCSD)?  Yes  No  N/A  2nd
- 4.4 Analytical spikes within QC limits where applicable?  Yes  No  N/A  2nd
- 4.5 ICP only: One serial dilution performed and within 10% of parent per SDG?  Yes  No  N/A  2nd
- 4.6 ICP only: RLV run per batch and within 20% of current values?  Yes  No  N/A  2nd
- 4.7 ICP only: ICSA,ICSAB analyzed at the required frequencies and within 20% of values per dilution record?  Yes  No  N/A  2nd

#### 5.0 Other

- 5.1 Are all nonconformances included and noted?  Yes  No  N/A  2nd
- 5.2 Is the correct date and time of analysis shown?  Yes  No  N/A  2nd
- 5.3 Did the analyst sign and date the digestion log for the analytical run?  Yes  No  N/A  2nd
- 5.4 Correct methodology used?  Yes  No  N/A  2nd
- 5.5 Transcriptions checked?  Yes  No  N/A  2nd
- 5.6 Calculations checked at minimum frequency?  Yes  No  N/A  2nd
- 5.7 Units checked?  Yes  No  N/A  2nd
- 5.8 Verified that appropriate data transferred to ReportDB?  Yes  No  N/A  2nd

#### 6.0 Comments on any 'No' response:

First Level

Date

Second

Date

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-451		Page 1 of 4
Collector <i>M. E. Bell</i>	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 8L	Data Turnaround <i>21 Days</i>	
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce	Sample Location 100-D-100 In-Situ BCL 18-30' bgs		SAF No. RC-074			
Ice Chest No. N/A	Field Logbook No. EL-1607-15	COA 0D1032600	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						
Special Handling and/or Storage Col. 4 Deg C <i>J32A10428</i> <i>J3A210428</i> Due 1-22-13						
Sample No.	Matrix *	Sample Date <i>1/18/13</i>	Sample Time <i>0920</i>	SPECIAL INSTRUCTIONS		
J1RCL5 <del>mxrak</del>	SOIL		*	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}		
J1RCL6 <del>mxfal</del>	SOIL		*	S=Soil Ss=Soil Sludge Sp=Solid W=Water O=Oil A=Air D=Drum Solids Di=Drum Liquids T=Tissue W=Type L=Liquid V=Vegetation X=Other		
J1RCL7 <del>mxnam</del>	SOIL		*			
J1RCL8 <del>mxrak</del>	SOIL		*			
J1RCL9 <del>mxfal</del>	SOIL		*			
CHAIN OF POSSESSION						
Relinquished By/Removed From <i>Muse O'Donnell</i>	Date/Time <i>1/18/13 13:54</i>	Received By/Stored In <i>mtb shackles</i>	Date/Time <i>1/18/13 13:54</i>			
Relinquished By/Removed From <i>mtb shackles</i>	Date/Time <i>1/18/13 16:45</i>	Received By/Stored In	Date/Time <i>1/18/13 16:45</i>	* Custodian unavailable to remove samples from controlled storage. Shipper removed samples, taking custody for shipment to lab.		
Relinquished By/Removed From <i>DOO IA</i>	Date/Time <i>1-21-13 1025</i>	Received By/Stored In <i>A. Feier</i>	Date/Time <i>1-21-13 1025</i>			
Relinquished By/Removed From <i>A. Feier A. Feier</i>	Date/Time <i>1-21-13 1055</i>	Received By/Stored In <i>mtb shackles</i>	Date/Time <i>1-21-13 1055</i>			
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  
Date/Time

Disposed By

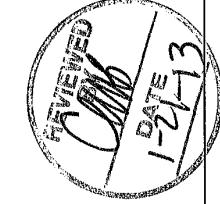
CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-451		Page 2 of 4	
Collector <i>In Radle/</i>	Company Contact Joan Kessner Telephone No. 509-375-4688	Project Coordinator KESSNER, JH SAF No. RC-074	Price Code 8L	Method of Shipment Hand Deliver	Data Turnaround 18/13 <i>24 hrs</i>		
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proce	Sampling Location 100-D-100 In-Situ BCL 18-30' bgs	Field Logbook No. EL-1607-15	COA 0D1032600				
Ice Chest No. N/A	Offsite Property No. N/A			Bill of Lading/Air Bill No. N/A			
POSSIBLE SAMPLE HAZARDS/REMARKS <i>None</i>				Preservation Cool 4C	Cool 4C		
				Type of Container G/P	G/P		
				No. of Container(s) 1	1		
				Volume 125mL	125mL		
				See Item (1) in Special Instructions.	Chromium Hex - 7196 - Quick Turn (Hexavalent Chromium)		
<i>3321042</i> <i>Down</i> <i>Due 1-32-13</i>				SAMPLE ANALYSIS			
Sample No.	Matrix *	Sample Date	Sample Time				
J1RCM0 <i>MAT</i>	SOIL	1/22/13	X	X			
J1RCM4	SOIL	1/18/13	X	X			
J1RCM2	SOIL	1/25/13					
J1RCM3 <i>MAT</i>	SOIL	1/25/13	X	X			
J1RCM4 <i>MAT</i>	SOIL	1/25/13	X	X			
				Sign/Print Names	SPECIAL INSTRUCTIONS		
CHAIN OF POSSESSION				Received By/Stored In <i>W.C. Radle</i>	Date/Time <i>1-18-13 13:54</i>	Date/Time <i>1-18-13 13:54</i>	
Relinquished By/Removed From <i>W.C. Radle</i>				Received By/Stored In <i>m Starkach</i>	Date/Time <i>1-18-13 16:05</i>	Date/Time <i>1-18-13 16:05</i>	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver} <i>#</i>
Relinquished By/Removed From <i>m Starkach</i>				Received By/Stored In <i>A. Freier</i>	Date/Time <i>1-21-13 10:25</i>	Date/Time <i>1-21-13 10:25</i>	Custodian unavailable to remove samples from controlled storage. Shipper removed samples, taking custody for shipment to lab.
Relinquished By/Removed From <i>100/14</i>				Received By/Stored In <i>A. Freier</i>	Date/Time <i>1-21-13 10:55</i>	Date/Time <i>1-21-13 10:55</i>	<i>REVIEWED</i> <i>CMR</i> <i>DATE 5/3 1-21-13 10:55</i>
Relinquished By/Removed From <i>A. Freier A. Freier</i>				Received By/Stored In <i>J. Sull</i>	Date/Time <i>1-21-13 10:55</i>	Date/Time <i>1-21-13 10:55</i>	
Relinquished By/Removed From				Received By/Stored In	Date/Time	Date/Time	
LABORATORY SECTION	Received By			Title			Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By			Date/Time

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			RC-074-451		Page 3 of 4	
Collector <i>M. Riddle</i>	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 8L	Data Turnaround μa 21 Days 24 hrs			
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proc	Sampling Location 100-D-In-Situ BCL 18-30' bgs	SAF No. RC-074						
Ice Chest No. N/A	Field Logbook No. EL-1607-15	COA 0D10032600	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 AC	Cool AC					
Special Handling and/or Storage Cool 4 Deg C		Type of Container G/P	G/P					
<i>JRCM-210428</i> Due 1-32-13		No. of Container(s) 1	1					
		Volume 125mL	125mL					
		See Item (1) in Chromium Hex - 7196 - Quick Turn {Hexavalent Chromium}						
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date <i>1/18/13</i>	Sample Time <i>12:58</i>					
JRCM5 <del>WYKA</del>	SOIL	<i>At 1-21-13</i>	<i>X</i>	<i>X</i>				
JRCM6	SOIL							
JRCM7 <del>WYKA</del>	SOIL	<i>1/18/13</i>	<i>1246</i>	<i>X</i>				
JRCM8 <del>WYKA</del>	SOIL	<i>1/18/13</i>	<i>1247</i>	<i>X</i>				
JRCM9 <del>WYKA</del>	SOIL	<i>1/18/13</i>	<i>1250</i>	<i>X</i>				
		Sign/Print Names <i>REVIEWED BY: A. Fries 1-21-13</i>						
CHAIN OF POSSESSION		SPECIAL INSTRUCTIONS						
Relinquished By/Removed From <i>John Riddle</i>	Date/Time <i>1/18/13</i>	Received By/Stored In <i>100-D-100 mStanback</i>	Received By/Stored In <i>1/18/13</i>	Date/Time <i>12:54</i>	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}			
Relinquished By/Removed From <i>A. Fries</i>	Date/Time <i>1/18/13</i>	Received By/Stored In <i>100-D-100 mStanback</i>	Received By/Stored In <i>1/18/13</i>	Date/Time <i>12:55</i>	* Custodian unavailable to remove samples from controlled storage. Shipper removed samples, taking custody for shipment to lab.			
Relinquished By/Removed From <i>100-D-1A</i>	Date/Time <i>1/21/13</i>	Received By/Stored In <i>A. Fries</i>	Received By/Stored In <i>A. Fries</i>	Date/Time <i>1/21/13</i>				
Relinquished By/Removed From <i>A. Fries</i>	Date/Time <i>1/21/13</i>	Received By/Stored In <i>100-D-100 mStanback</i>	Received By/Stored In <i>100-D-100 mStanback</i>	Date/Time <i>1/21/13</i>				
Relinquished By/Removed From	Date/Time	Received By/Stored In	Received By/Stored In	Date/Time				
LABORATORY SECTION	Received By				Title			
FINAL SAMPLE DISPOSITION	Disposal Method				Date/Time			

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CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-074-451		Page 4 of 4
Collector <i>M. Kessner</i>	Company Contact Joan Kessner	Telephone No. 509-375-4688	Project Coordinator KESSNER, JH	Price Code 8L	Data Turnaround Data 07/18/13 21 Days 24 Hours	
Project Designation 100-D/DR Burial Grounds & Remaining Sites - Soil In-Proc	Sampling Location 100-D-100 In-Situ BCL 18-30' legs	SAF No. RC-074	Method of Shipment Hand Deliver			
Ice Chest No. N/A	Field Logbook No. EL-1607-15	COA 0D10032600	Offsite Property No. N/A	Bill of Lading/Air Bill No. N/A		
POSSIBLE SAMPLE HAZARDS/REMARKS None						
Special Handling and/or Storage Col 4 Deg C						
<i>DO NOT TURN</i> SAMPLE ANALYSIS Date 1-22-13						
Sample No.	Matrix *	Sample Date <i>As 1-21-13</i>	Sample Time			
JRCN1 <i>SOIL</i>	SOIL	<i>1/18/13</i>	<i>1235</i>	<i>X</i>		
JRCN2 <i>SOIL</i>	SOIL	<i>1/18/13</i>	<i>1233</i>	<i>X</i>		
JRCN3 <i>SOIL</i>	SOIL	<i>1/18/13</i>	<i>1230</i>	<i>X</i>		
JRCN4 <i>SOIL</i>	SOIL	<i>1-21-13</i>				
				SIGN/PRINT NAMES	SPECIAL INSTRUCTIONS	
Relinquished By/Removed From <i>M. Kessner DR</i>	Date/Time <i>1-18-13</i>	Received By/Stored In <i>mstankovich</i>	Date/Time <i>1-18-13</i>	(1) Metals by ICP - 6010 - Quick Turn {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}		
Relinquished By/Removed From <i>DR</i>	Date/Time <i>1645</i>	Received By/Stored In <i>1060/1A</i>	Date/Time <i>1645</i>	* Custodian unavailable to remove samples from controlled storage. Shipper removed samples, taking custody for shipment to lab.		
Relinquished By/Removed From <i>DR</i>	Date/Time <i>1-21-13</i>	Received By/Stored In <i>A. Freier A. Green</i>	Date/Time <i>1-21-13</i>			
Relinquished By/Removed From <i>A. Freier A. Green</i>	Date/Time <i>1055</i>	Received By/Stored In <i>mstankovich</i>	Date/Time <i>1-21-13</i>			
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time			
LABORATORY SECTION	Received By			Title		
FINAL SAMPLE DISPOSITION	Disposal Method			Disposed By		
				Date/Time		

WCH-EE-011



**Sample Check-in List**

Date/Time Received: 1-21-13 | 1055 Container GM Screen Result: (Airlock) .4 Initials B ]  
 Sample GM Screen Result (Sample Receiving) .6 Initials B ]

Client: wch SDG #: 301674 NA [ ] SAF #: RL-074 NA [ ]

Lot Number: 33A210428

Chain of Custody # RL-074-451

Shipping Container ID: hand deliv NA B 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 B ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal B ]
3. Cooler temperature: 9,0 °C ON FCC 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): 15
7. Containers received: 30 x 125 ml p

8. Sample holding times exceeded? NA [ ] Yes [ ] No B ]
9. Samples have:
  - tape
  - custody seals
  - hazard labels
  - 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 B ]  
 (If acidification is necessary, then document sample ID, initial pH, amount of HNO<sub>3</sub> added and pH after addition on table overleaf)
13. RPL ID # of preservative used: N/A
14. Were any anomalies identified in sample receipt? Yes [ ] No B ]
15. Description of anomalies (include sample numbers): NA B ]

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

16. Additional Information: P | A

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

Sample Custodian: Jean Beck Date: 1-21-13

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

No action necessary; process as is  
Project Manager Shanbulka Date 7/1/13

JBA210428

Re: Bills

LS-023, Rev. 15, 07/11

See over for additional information.

no. 1/18/183

Washington Closure Hanford CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

## Sample Check-in List

Date/Time Received: 1-21-13 | 1055 Container GM Screen Result: (Airlock) 14 Initials B  
 Sample GM Screen Result (Sample Receiving) 14 Initials B

Client: WCA SDG #: J01R74 NA [ ] SAF #: RC-074 NA [ ]

Lot Number: JBA210429

Chain of Custody # RC-074-452

Shipping Container ID: Hand deliv. 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 B [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal B [ ]
3. Cooler temperature: 9.0 °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 B [ ] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 3
7. Containers received: 6 x 12.5 ml p
  
8. Sample holding times exceeded? NA [ ] Yes [ ] No B [ ]
9. Samples have:
  - tape
  - custody seals
  - hazard labels
  - 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 B [ ]  
 (If acidification is necessary, then document sample ID, initial pH, amount of HNO<sub>3</sub> added and pH after addition on table overleaf)
13. RPL ID # of preservative used: N/A
14. Were any anomalies identified in sample receipt? Yes [ ] No B [ ]
15. Description of anomalies (include sample numbers): NA A \_\_\_\_\_

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

16. Additional Information: ✓ A

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

[3] Client/Courier unpack cooler.

Sample Custodian: Janet Beck Date: 1-21-13

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

No action necessary, process as is  
Project Manager John Doe Date 4/1/13

JBA 210/29

*John* 1/11/12

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See over for additional information.



### Sample Check-in List

Date/Time Received: 1-24-13 | 0830 Container GM Screen Result: (Airlock) .4 Initials B  
 Sample GM Screen Result (Sample Receiving) .4 Initials B

Client: WCH SDG #: SD1674 NA [ ] SAF #: RL-074 NA [ ]

Lot Number: J3A240405

Chain of Custody # RL-074-439

Shipping Container ID: hand deliv. NA B 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>10.0°C ice packs</u> 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>2</u>         |        |
| 7. Containers received:   | <u>44125 mlp</u> |        |

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

12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA B [ ]  
 (If acidification is necessary, then document sample ID, initial pH, amount of HNO<sub>3</sub> added and pH after addition on table overleaf)

RPL ID # of preservative used: D/A

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

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

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

16. Additional Information: WIA

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

 Client/Courier unpack cooler.

Sample Custodian: John Bach Date: 1-24-13

Date: 1-24-13

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

No action necessary; process as is

Project Manager Franklin Date 7/24/13

J3A240405

*One Bell/13*

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See over for additional information.



Sample Preparation/Analysis															
AnalyDueDate: 01/22/2013		Batch: 3021062 SOIL		mg/kg		PM, Quote: RW2, 88144		Balance Id: _____ Pipet #: _____							
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, InitDate	Comments: Prep Tech:
8	MXAXAT-1-AC	J3A210428-6-SAMP 01/18/2013 12:24	AmFec: 2X125mL P #Containers: 2												
9	MXXAV-1-AC	J3A210428-7-SAMP 01/18/2013 12:55	AmFec: 2X125mL P #Containers: 2												
10	MXXAW-1-AC	J3A210428-8-SAMP 01/18/2013 12:54	AmFec: 2X125mL P #Containers: 2												
11	MXAXAX-1-AC	J3A210428-9-SAMP 01/18/2013 12:58	AmFec: 2X125mL P #Containers: 2												
12	MXXA0-1-AC	J3A210428-10-SAMP 01/18/2013 12:46	AmFec: 2X125mL P #Containers: 2												
13	MXXA1-1-AC	J3A210428-11-SAMP 01/18/2013 12:47	AmFec: 2X125mL P #Containers: 2												
14	MXXA2-1-AC	J3A210428-12-SAMP 01/18/2013 12:50	AmFec: 2X125mL P #Containers: 2												
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.										LSV - Insufficient Volume for Analysis WO Cnt: 14 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:
Sep2 DT/Tm Tech:										Sep2 DT/Tm Tech:
Prep Tech:										Prep Tech:
Comments:										Comments:
Work Ord. Lot, Test	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Yield	Ppt or Geometry	Count Time Min	Detector id	CR Analyst, InitDate
Sample Date	Amt/Unit	Acidified/Unit	Amt/Unit	(Un-Acidified)	Prep Date	Yield				
22 MXXDQ-1-ACC										
J3A2-10000-62-1 CS										
01/21/2013 16:09 pd										
Amftec:					#Containers: 1					
Comments:										
All Clients for Batch:	Washington Closure Hanford LLC									Washington Closure Hanford LLC, RW2, 88144
XXXXK1AC-SAMP Constituent List:										
XXXXK1CE-MS Constituent List:										
XXXXQ1AA-BLK:										
XXXXQ1AC-ICS:										
XXXXK1AC-SAMP Calc Info:										
Uncert Level (#\$) : 2	Decay to SdDt: Y									Sci.Not.: Y ODRs: B
XXXXK1CE-MS Calc Info:										
Uncert Level (#\$) .: 2	Decay to SdDt: Y									Sci.Not.: Y ODRs: B
XXXXQ1AA-BLK:										
Uncert Level (#\$) .: 2	Decay to SdDt: Y									Sci.Not.: Y ODRs: B
XXXXQ1AC-ICS:										
Uncert Level (#\$) .: 2	Decay to SdDt: Y									Sci.Not.: Y ODRs: B
TestAmerica	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2									Page 4
Richland Wa.	pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added									ISV - Insufficient Volume for Analysis
										WO Cnt: 22
										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, InitDate
Comments:										
1 MXX5D-1-AC										
J3A240405-1-SAMP										
01/23/2013 14:46										
2 MXX5D-1-AL-S										
J3A240405-1-MS										
01/23/2013 14:46										
3 MXX5D-1-AM-X										
J3A240405-1-DUP										
01/23/2013 14:46										
4 MXX5E-1-AC										
J3A240405-2-SAMP										
01/23/2013 14:49										
5 MXX6G-1-AA-B										
J3A240000-30-BLK										
01/24/2013 10:52 pd										
6 MXX6G-1-AC-C										
J3A240000-30-1-CS										
01/24/2013 10:52 pd										

WO Cnt: 6  
ICOC v4.8.49

ISV - Insufficient Volume for Analysis

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

Sample Preparation/Analysis		Balance Id:	
DW Alkaline Digestion by method 3060A EA Chromium, Hexavalent (7196A)		Pipet #: _____	
5l CLIENT: HANFORD		Sep1 DT/Tm Tech: _____	
Batch: 3024030		Sep2 DT/Tm Tech: _____	
SEQ Batch, Test: None		Prep Tech: _____	
mg/kg		Comments: _____	
Work Ord, Lot Sample Date	Total Amt/Unit	Initial Aliquot Acidified/Unit	Adj Aliq Amt (Un-Acidified)
Sample Date	Amt/Unit	Amt/Unit	QC Tracer Prep Date
			Dish Yield
			Ppt or Geometry
			Count Time Min
			Detector Id
			Count On / Off (24hr) Circle
			CR Analyst InitDate
			Comments: _____
Comments: _____			
All Clients for Batch: 12762, Washington Closure Hanford LLC			
Washington Closure Hanford LLC, RW2, 88144			
NXX5D1AC-SAMP Constituent List:			
NXX5D1AL-MS Constituent List:			
NXX6G1AA-BLK:			
NXX6G1AC-LCS:			
NXX5D1AC-SAMP Calc Info:			
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
NXX5D1AL-MS Calc Info:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
NXX6G1AA-BLK:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
NXX6G1AC-LCS:	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
Uncert Level (#s) : 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y ODRs: B
Key: ln - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 Page 2 ISV - Insufficient Volume for Analysis			
TestAmerica Richland Wa.	pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	WO Cnt: 6	ICOC v4.8.49