0099702

SAF-RC-148
300 Area Field Remediation – Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 9/26/11
INITIAL/DATE

COMMENTS:

SDG J01260 SAF-RC-148

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Sample Location/Waste Site: 300-16:1 Verification

RECEIVED
OCT 13 2011
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

RECEIVED
SEP 2011

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 21 ***Pages***

Report No.: 48406

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.
J01260	RC-148	J1KRK5	J1H310487-1	ML6PT1AA	9ML6PT10	1244119
		J1KRK6	J1H310487-2	ML6PV1AA	9ML6PV10	1244119

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

September 16, 2011

Attention: Joan Kessner

SAF Number	:	RC-148
Date SDG Closed	:	August 31, 2011
Number of Samples	:	Two (2)
Sample Type	:	Soil
SDG Number	:	J01260
Data Deliverable	:	21– Day / Summary

CASE NARRATIVE

I. Introduction

On August 31, 2011 two soil samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

WCH ID#	TARL ID#	MATRIX	DATE OF RECEIPT
J1KRK5	ML6PT	SOIL	8/31/11
J1KRK6	ML6PV	SOIL	8/31/11

II. Sample Receipt

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

III. Analytical Results/Methodology

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

The requested analyses were:

Alpha Spectroscopy
Uranium 234, 235 and 238 by method RL-ALP-015

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy

Uranium 234, 235 and 238 by method RL-ALP-015:
The LCS, batch blank, samples and sample duplicate (J1KRK5) results are within contractual requirements.

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

Reviewed and approved:

Rhonda Wagar
Project Manager

Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**	
EPA 901.1	Cs-134, I-131	RL-GAM-001	
EPA 900.0	Alpha & Beta	RL-GPC-001	
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002	
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002	
EPA 903.1	Ra-226	RL-RA-001	
EPA 904.0	Ra-228	RL-RA-001	
EPA 905.0	Sr-89/90	RL-GPC-003	
ASTM D5174	Uranium	RL-KPA-003	
EPA 906.0	Tritium	RL-LSC-005	

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

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

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

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

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) ***u_c - Combined Uncertainty.***	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, ***u_c the combined uncertainty.*** The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the **Work Order** Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 16-Sep-11

TestAmerica TARL

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

Report No. : 48406 **SDG No:** J01260

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1244119 UISO_IE_PLATE_AEA									
J1KRK5									
	ML6PT1AA	U-234	5.33E+00 +- 1.4E+00		pCi/g	84%	1.49E-01	1.00E+00	
		U-235	2.12E-01 +- 1.7E-01		pCi/g	84%	1.69E-01	1.00E+00	
		U-238	5.30E+00 +- 1.4E+00		pCi/g	84%	1.49E-01	1.00E+00	
J1KRK5 DUP									
	ML6PT1AC	U-234	5.26E+00 +- 1.3E+00		pCi/g	92%	1.71E-01	1.00E+00	1.3
		U-235	1.30E-01 +- 1.2E-01		pCi/g	92%	1.11E-01	1.00E+00	47.9
		U-238	5.90E+00 +- 1.4E+00		pCi/g	92%	1.59E-01	1.00E+00	10.7
J1KRK6									
	ML6PV1AA	U-234	4.74E+00 +- 1.1E+00		pCi/g	106%	8.72E-02	1.00E+00	
		U-235	2.33E-01 +- 1.5E-01		pCi/g	106%	8.72E-02	1.00E+00	
		U-238	4.81E+00 +- 1.2E+00		pCi/g	106%	8.72E-02	1.00E+00	

No. of Results: 9

TestAmerica **RPD** - **Relative Percent Difference.**

rptSTLRchSaSum mary2 V5.2.15 A2002

QC Results Summary

Date: 16-Sep-11

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Report No. : 48406 **SDG No.:** J01260

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
UISO_IE_PLATE_AEA								
1244119 BLANK QC,								
ML7AE1AA	U-234	2.11E-02 +- 4.5E-02	U	pCi/g	101%			8.32E-02
	U-235	0.00E+00 +- 4.4E-02	U	pCi/g	101%			8.32E-02
	U-238	0.00E+00 +- 4.4E-02	U	pCi/g	101%			8.32E-02
1244119 LCS,								
ML7AE1AC	U-234	3.23E+00 +- 8.6E-01		pCi/g	99%	101%	0.0	9.18E-02
	U-238	3.18E+00 +- 8.5E-01		pCi/g	99%	95%	0.0	9.18E-02

No. of Results: 5

TestAmerica
rptSTLRchQcSummary V5.2.15
A2002

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

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

FORM I

SAMPLE RESULTS

Date: 16-Sep-11

Lab Name:	TestAmerica	**SDG:**	J01260	**Collection Date:**	8/25/2011 1:56:00 PM
Lot-Sample No.:	J1H310487-1	**Report No. :**	48406	**Received Date:**	8/31/2011 3:20:00 PM
Client Sample ID:	J1KRK5	**COC No. :**	RC-148-027	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1244119	UISO_IE_PLATE_AEA			**Work Order:** ML6PT1AA			**Report DB ID:** 9ML6PT10					
U-234	***5.33E+00***		7.8E-01	1.4E+00	1.49E-01	pCi/g	84%	*(35.9)*	9/15/11 02:34 p		1.02	ALP3
						3.60E-02	1.00E+00	*(7.8)*			g	
U-235	***2.12E-01***		1.6E-01	1.7E-01	1.69E-01	pCi/g	84%	*(1.2)*	9/15/11 02:34 p		1.02	ALP3
						4.65E-02	1.00E+00	*(2.5)*			g	
U-238	***5.30E+00***		7.7E-01	1.4E+00	1.49E-01	pCi/g	84%	*(35.7)*	9/15/11 02:34 p		1.02	ALP3
						3.60E-02	1.00E+00	*(7.8)*			g	

Ratio U-234/238 = 1.0

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

TestAmerica Laboratories, Inc.

TestAmerica
rptSTLRchSample
V5.2.15 A2002

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

FORM I

SAMPLE RESULTS

Date: 16-Sep-11

Lab Name:	TestAmerica	**SDG:**	J01260	**Collection Date:**	8/25/2011 1:56:00 PM
Lot-Sample No.:	J1H310487-2	**Report No. :**	48406	**Received Date:**	8/31/2011 3:20:00 PM
Client Sample ID:	J1KRK6	**COC No. :**	RC-148-027	**Matrix:**	SOIL

Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1244119	UISO_IE_PLATE_AEA			**Work Order:** ML6PV1AA		**Report DB ID:** 9ML6PV10						
U-234	***4.74E+00***		6.6E-01	1.1E+00	8.72E-02	pCi/g	106%	*(54.4)*	9/15/11 02:34 p		1.0	ALP8
						1.21E-02	1.00E+00	*(8.3)*			g	
U-235	***2.33E-01***		1.5E-01	1.5E-01	8.72E-02	pCi/g	106%	*(2.7)*	9/15/11 02:34 p		1.0	ALP8
						1.21E-02	1.00E+00	*(3.)*			g	
U-238	***4.81E+00***		6.7E-01	1.2E+00	8.72E-02	pCi/g	106%	*(55.2)*	9/15/11 02:34 p		1.0	ALP8
						1.21E-02	1.00E+00	*(8.3)*			g	

Ratio U-234/238 = 1.0

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

TestAmerica
rptSTLRchSample
V5.2.15 A2002

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

FORM II

Date: 16-Sep-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01260	**Collection Date:**	8/25/2011 1:56:00 PM
Lot-Sample No.:	J1H310487-1	**Report No. :**	48406	**Received Date:**	8/31/2011 3:20:00 PM
Client Sample ID:	J1KRK5 DUP	**COC No. :**	RC-148-027	**Matrix:**	SOIL

Parameter	Result, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1244119	UISO_IE_PLATE_AEA			**Work Order:** ML6PT1AC		**Report DB ID:** ML6PT1CR			**Orig Sa DB ID:** 9ML6PT10			
U-234	5.26E+00		7.5E-01	1.3E+00	1.71E-01	pCi/g	92%	(30.7)	9/15/11 02:34 p		0.99	ALP4
	5.33E+00		**RPD**	**1.3**		1.00E+00		(8.)			g	
U-235	1.30E-01		1.2E-01	1.2E-01	1.11E-01	pCi/g	92%	(1.2)	9/15/11 02:34 p		0.99	ALP4
	2.12E-01		**RPD**	**47.9**		1.00E+00		(2.1)			g	
U-238	5.90E+00		7.9E-01	1.4E+00	1.59E-01	pCi/g	92%	(37.1)	9/15/11 02:34 p		0.99	ALP4
	5.30E+00		**RPD**	**10.7**		1.00E+00		(8.1)			g	

Ratio U-234/238 = 0.9 *Alpha Spec Result Sum = 1.1E+01*

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

TestAmerica RPD - Relative Percent Difference.

rptSTLRchDupV5.2 .15 A2002 MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

FORM II

BLANK RESULTS

Date: 16-Sep-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01260

Report No. : 48406

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA ,	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 1244119	UISO_IE_PLATE_AEA			Work Order:	ML7AE1AA		Report DB ID:	ML7AE1AB				
U-234	2.11E-02	U	4.4E-02	4.5E-02	8.32E-02	pCi/g	101%	0.25	9/15/11 02:34 p		1.02	ALP9
					1.15E-02	1.00E+00		0.94			g	
U-235	0.00E+00	U	0.0E+00	4.4E-02	8.32E-02	pCi/g	101%	0.	9/15/11 02:34 p		1.02	ALP9
					1.15E-02	1.00E+00		0.			g	
U-238	0.00E+00	U	0.0E+00	4.4E-02	8.32E-02	pCi/g	101%	0.	9/15/11 02:34 p		1.02	ALP9
					1.15E-02	1.00E+00		0.			g	

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

TestAmerica Laboratories, Inc.

11

TestAmerica
rptSTLRchBlank
V5.2.15 A2002

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

FORM II

LCS RESULTS

Date: 16-Sep-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01260

Report No. : 48406

Parameter	Result	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 1244119	UISO_IE_PLATE_AEA			**Work Order:** ML7AE1AC			**Report DB ID:** ML7AE1CS						
U-234	3.23E+00		5.6E-01	8.6E-01	9.18E-02	pCi/g	99%	3.18E+00	9.8E-02	101%	9/15/11 02:35 p	1.01	ALP10
							Rec Limits:	70	130	0.0		g	
U-238	3.18E+00		5.6E-01	8.5E-01	9.18E-02	pCi/g	99%	3.33E+00	1.0E-01	95%	9/15/11 02:35 p	1.01	ALP10
							Rec Limits:	70	130	0.0		g	

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

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

rptSTLRchLcs
V5.2.15 A2002

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

9/16/2011 9:44:56 AM

Lot No., Due Date: J1H310487; 09/21/2011
Client, Site: 127642; S00X235B00 HANFORD
QC Batch No., Method Test: 1244119; RUISO Uiso by ALP
SDG, Matrix: J01260; SOIL

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

6.0 Comments on any No response:

First Level John Roth **Date** 9-16-11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 124119

Review Item	Yes (√)	No (√)	NA (√)
A. Sample Analysis 1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples 1. Is the Minimum Detectable Activity for the blank result ≤ the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity ≤ the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other 1. Are all Non-conformances included and noted?			✓
2. Are all required forms filled out?	✓		
3. Was the correct methodology used?	✓		
4. Was transcription checked?	✓		
5. Were all calculations checked at a minimum frequency?	✓		
6. Were units checked?	✓		

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

Second Level Review: [signature] Date: 9/19/11

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

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-148-027	Page 1 of 1

Collector Q. Stowe	**Company Contact** Joan Kessner **Telephone No.** 509-375-4688	**Project Coordinator** KESSNER, JH	**Price Code** 8L **Data Turnaround** 21 Days
Project Designation 300 Area Field Remediation - Soil Full Protocol	**Sampling Location** 300-16:1 Verification	**SAF No.** RC-148	
Ice Chest No. NA	**Field Logbook No.** EL-1395-18 **COA** R300162000	**Method of Shipment** Hand Deliver/Government Vehicle/FedEx	
Shipped To TestAmerica Incorporated, Richland	**Offsite Property No.** N/A	**Bill of Lading/Air Bill No.** N/A	

POSSIBLE SAMPLE HAZARDS/REMARKS

Potential Radioactive <D.O.T. Limits TRB 8-31-11

Special Handling and/or Storage

Cool 4 degrees C

J01260

J1H310487

MAB 8-31-11
J1H310487
Due 9-21-11

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	None	None				
Type of Container	G/P	G/P	aG	aG	aG	G/P	G/P				
No. of Container(s)	1	1	1	1	1	1	1				
Volume	60mL	60mL	120mL	120mL	120mL	60mL	60g				
SAMPLE ANALYSIS	See item (1) in Special Instructions.	pH (Soil) - 9045	TPH-Diesel Range - WTPH-D+ KBB 8/25/11	Semi-VOA - 8270A (TCL)	PAHs - 8310	Isotopic Uranium	RCF GEA Shipping Screen KBB 8/25/11				
Sample No.	**Matrix ***	**Sample Date**	**Sample Time**								RC
J1KRK5 MLLoPT	SOIL	8/25/11	1356					✓			30183
J1KRK6 MLLoPV	SOIL	8/25/11	1356					✓			
~~J1KRK7~~ KBB 8/25/11	~~SOIL~~	~~8/25/11~~	~~1414~~								

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Quincy Stowe	8/25/11 1450	Received By/Stored In: DAVID BECKER	8/25/11 1450
Relinquished By/Removed From: DAVID BECKER	8/25/11 1625	Received By/Stored In: 1060, #2 A. Freier	8-25-11 1625
Relinquished By/Removed From: JR Sandison 1060 #2	8-31-11 1430	Received By/Stored In: JR Sandison	8-31-11 1430
Relinquished By/Removed From: J.R. Sandison	8-31-11 1445	Received By/Stored In: Bingham	8/31/11 1445
Relinquished By/Removed From: Bingham INCH	8/31/11 1520	Received By/Stored In: TAIR Cameron Kiapa	8-31-11 1520
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

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

Custodian unavailable to remove samples from controlled storage. Shipper removed samples from storage location taking custody of samples for shipment to lab.

REVIEWED BY CS DATE 8-31-11

Matrix *

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

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

WCH-EE-011

Apex™

Analysis Report for RCF30183

J1KRK5 SAF-RC-148 300FR/300-16:1 Verification

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF30183
Sample Description	: J1KRK5 SAF-RC-148 300FR/300-16:1 Verification
Sample Type	: 80g pillbox
Sample Size	: 6.700E+01 grams
Facility	: Default
Sample Taken On	: 8/25/2011 1:56:00PM
Acquisition Started	: 8/31/2011 8:28:42AM
Procedure	: 80 Gram Pill Box
Operator	: RCT
Detector Name	: REGIE2
Geometry	: 80 Gram Pill Box
Live Time	: 1800.0 seconds
Real Time	: 1800.5 seconds
Dead Time	: 0.03 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 3/11/2011
Efficiency Calibration Used Done On	: 3/16/2011
Efficiency Calibration Description	: REGIE2 80gPB 031511EC SN82752-238
Sample Number	: 18961

INTERFERENCE CORRECTED REPORT

Nuclide Name		Nuclide Id Confidence	Wt mean Activity (pCi/grams)	Wt mean Activity Uncertainty	Comments
K-40		0.959	1.49E+01	3.73E+00	
RA-226d	@	0.343	5.83E-01	1.90E-01	
U-238d	@	0.997	3.67E+00	1.93E+00	

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Sample Check-in List

Date/Time Received: 8-31-11 / ~~1445~~ 1520 BR 8-31-11 GM Screen Result: (Airlock) .06 Initials [BR]
(Sample Receiving) .08 Initials [BR]

Client: WCH SDG #: J01260 NA [ ] SAF #: RC-148 NA [ ]

Lot Number: J1H310487

Chain of Custody # RC-148-027

Shipping Container ID: Hand delivered NA [ ]

Samples received inside shipping container/cooler/box Yes [BR] 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 [BR]
2. Custody Seals dated and signed? Yes [ ] No [ ] No Custody Seal [BR]
3. Cooler temperature: 14 °C NA [BR] BR 8-31-11
4. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [BR]

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes [BR] No [ ]
6. Number of samples received (Each sample may contain multiple bottles): 2
7. Containers received: 2 x 60 mL AG

8. Sample holding times exceeded? NA [ ] Yes [ ] No [BR]
9. Samples have:
   ____tape
   ____custody seals
   [BR] hazard labels
   [BR] appropriate sample labels
10. Matrix:
    [BR] A (FLT, Wipe, Solid, Soil)
    ____S (Air, Niosh 7400)
    ____I (Water)
    ____T (Biological, Ni-63)
11. Samples:
    [BR] are in good condition
    ____are broken
    ____are leaking
    ____have air bubbles (Only for samples requiring no head space)
    ____Other
12. Sample pH appropriate for analysis requested Yes [ ] No [ ] NA [BR]
    (If acidification is necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition on table overleaf)
    RPL ID # of preservative used : N/A
13. Were any anomalies identified in sample receipt? Yes [ ] No [BR]
14. Description of anomalies (include sample numbers): NA [BR]

See over for additional information

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

16. Additional Information: _____

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

Sample Custodian: Barbara Richardson Date: 8-31-11

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 8/31/11

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

[signature] 8-31-11

[signature] 8-31-11

9/12/2011 2:30:24 PM

Sample Preparation/Analysis

Balance Id:1120373922

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

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

Pipet #: _____

AnalyDueDate: 09/21/2011

Sep1 DT/Tm Tech:

Batch: 1244119 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1244119 7SSR,

Prep Tech: ,BouslaughP

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 ML6PT-1-AA J1H310487-1-SAMP 08/25/2011 13:56		1.02g,in AmtRec: 1X60MLAG	UITC26799 06/14/11,pd 06/15/01,r #Containers: 1	50		Scr:	Alpha:	Beta:
2 ML6PT-1-AC-X J1H310487-1-DUP 08/25/2011 13:56		0.99g,in AmtRec: 1X60MLAG	UITC26800 06/14/11,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:
3 ML6PV-1-AA J1H310487-2-SAMP 08/25/2011 13:56		1.00g,in AmtRec: 1X60MLAG	UITC27100 08/05/11,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:
4 ML7AE-1-AA-B J1I010000-119-BLK 09/01/2011 15:42 pd		1.02g,in AmtRec:	UITC26901 07/27/11,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:
5 ML7AE-1-AC-C J1I010000-119-LCS 09/01/2011 15:42 pd		1.01g,in AmtRec:	UISH1443 08/12/11,pd 06/15/01,r #Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

ML6PT1AA-SAMP Constituent List:

U-232	RDL:	pCi/g	LCL:20	UCL:105	RPD:35	U-234	RDL:1	pCi/g	LCL:	UCL:	RPD:

TestAmerica Laboratories, Inc.

Sample Preparation/Analysis

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

Balance Id:1120373922
Pipet #: _____

AnalyDueDate: 09/21/2011

Sep1 DT/Tm Tech:

Batch: 1244119 pCi/g
SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,BouslaughP

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

```
 U-235      RDL:1        pCi/g    LCL:      UCL:      RPD:      U-238      RDL:1      pCi/g    LCL:      UCL:      RPD:

ML7AE1AA-BLK:
 U-232      RDL:         pCi/g    LCL:20    UCL:105   RPD:35    U-234      RDL:1      pCi/g    LCL:      UCL:      RPD:
 U-235      RDL:1        pCi/g    LCL:      UCL:      RPD:      U-238      RDL:1      pCi/g    LCL:      UCL:      RPD:

ML7AE1AC-LCS:
 U-232      RDL:         pCi/g    LCL:20    UCL:105   RPD:35    Uranium    RDL:       pCi/g    LCL:70    UCL:130   RPD:35

ML6PT1AA-SAMP Calc Info:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
ML7AE1AA-BLK:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
ML7AE1AC-LCS:
     Uncert Level (#s).: 2     Decay to SaDt: Y     Blk Subt.: N     Sci.Not.: Y     ODRs: B
```


TestAmerica Laboratories, Inc.

9/16/2011 9:44:10 AM

ICOC Fraction Transfer/Status Report

ByDate: 9/16/2010, 9/21/2011, Batch: '1244119', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1244119						
AC		**Rev1C**	**BouslaughP**	9/12/2011 2:10:29 PM		
SC			mcginnist	IsBatched	9/1/2011 3:59:53 PM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	9/12/2011 2:10:29 PM	RL-PRP-003 Revision 2
SC			WoodT	Prep1C	9/13/2011 4:08:27 AM	RL-PRP-003 REVISION 2
SC			BouslaughP	Prep1C	9/13/2011 10:53:30 AM	RL-PRP-003 REVISION 2
SC			HayesA	Sep1C	9/14/2011 1:01:13 PM	RL-ALP-004 REVISION 2
SC			JorgensonD	Sep1C	9/14/2011 1:11:33 PM	RL-ALP-004 REVISION 2
SC			JorgensonD	Sep2C	9/15/2011 11:29:06 AM	RL-ALP-015 REVISION 2
SC			ClarkR	InCnt1	9/15/2011 12:28:21 PM	RL-CI-008 REVISION 1
SC			DawkinsO	CalcC	9/15/2011 11:52:52 PM	RL-CI-008 REVISION 1
SC			nortonj	Rev1C	9/16/2011 9:44:03 AM	RL-DR-001 Rev 2
AC			**WoodT**	9/13/2011 4:08:27		
AC			**BouslaughP**	9/13/2011 10:53:30		
AC			**HayesA**	9/14/2011 1:01:13 PM		
AC			**JorgensonD**	9/14/2011 1:11:33 PM		
AC			**JorgensonD**	9/15/2011 11:29:06		
AC			**ClarkR**	9/15/2011 12:28:21		
AC			**DawkinsO**	9/15/2011 11:52:52		
AC			**nortonj**	9/16/2011 9:44:03		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 9

ICOCFractions v4.8.44

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-19770-1

SDG Number: J01260

Job Description: SAF# RC-148

RECEIVED SEP 2011

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
9/23/2011 12:49 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
09/23/2011

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

The Lab Certification ID# is E87667.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-19770-1

SDG #: J01260
SAF#: RC-148

Date SDG Closed: September 1, 2011
Data Deliverable: 21 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1KRK5	280-19770-1	6010/7471/9045/WTPH-D+/8270A/8310	6010B/6020/7471A/9045C/NWTPH-Dx/8270C/8310
J1KRK6	280-19770-2	6010/7471/9045/WTPH-D+/8270A/8310	6010B/6020/7471A/9045C/NWTPH-Dx/8270C/8310
J1KRK7	280-19770-3	6010/7471/9045/WTPH-D+/8270A/8310	6010B/6020/7471A/9045C/NWTPH-Dx/8270C/8310

The Uranium method substitution noted above, as agreed to by all parties, has no technical impact on the data.

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

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

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

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

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

RECEIPT
The samples were received on 9/1/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.4 C.

GC/MS SEMIVOLATILES - SW846 8270C
Compounds Benzo(b)fluoranthene and Benzo(k)fluoranthene were unresolved in samples J1KRK5 and J1KRK6 due to matrix interferences. It can be noted that these compounds were adequately resolved in associated standards, indicating the instrument is achieving separation. The combined peak was reported as Benzo(b)fluoranthene, while Benzo(k)fluoranthene was reported as undetected even though it may be present. Associated results have been flagged with a "K".

Low levels of Bis(2-ethylhexyl) phthalate, a common laboratory contaminant, are present in the method blank associated with batch 280-84716. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

No other anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO
No anomalies were encountered.

HPLC - SW846 8310 - PAHs
The RPD between the primary and confirmation columns exceeded 40% for analytes in samples J1KRK5 and J1KRK6. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A

Serial dilution of a digestate in batch 280-84388 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

Low levels of Chromium, Barium and Uranium are present in the method blanks associated with batches 280-84388 and 280-84445, respectively. Because the concentrations in the method blanks are not present at a level greater than half the reporting limit, corrective action is deemed unnecessary.

Zinc is present in the method blank associated with batch 280-84388 at 0.536 mg/kg, which is greater than half the project specific reporting limit (PSRL) of 1 mg/kg. TestAmerica's practical quantitation limit (PQL) for Zinc is 3 mg/kg. The laboratory cannot maintain system cleanliness at this low level; therefore, corrective action is not initiated.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1KRK5; therefore, control limits are not applicable.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9045C - PH

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	B	Analyte was found in the associated method blank as well as in the sample.
	U	Analyzed for but not detected.
	K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA		
	U	Analyzed for but not detected.
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
General Chemistry		
	U	Analyzed for but not detected.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Section	Qualifier	Description
HPLC/IC		
	U	Analyzed for but not detected.
	X	More than 40% difference between columns, lower result reported.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction			SW846 3550C
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction			SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
Ultrasonic Extraction			SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals			SW846 3050B
Metals (ICP/MS)	TAL DEN	SW846 6020	
Preparation, Metals			SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury			SW846 7471A
pH	TAL DEN	SW846 9045C	
Deionized Water Leaching Procedure			ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

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

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method	Analyst	Analyst ID
SW846 8270C	Kiekel, Daniel C	DCK
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Harre, John K	JKH
SW846 6020	Lill, Thomas E	TEL
SW846 7471A	Bowen, Heidi E	HEB
SW846 9045C	Woolley, Mark	MW
ASTM D-2216	Doherty, Jillian A	JAD
SW846 8310	Hall, Koley J	KJH

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-19770-1	J1KRK5	Solid	08/25/2011 1356	09/01/2011 0900
280-19770-2	J1KRK6	Solid	08/25/2011 1356	09/01/2011 0900
280-19770-3	J1KRK7	Solid	08/25/2011 1414	09/01/2011 0900

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Prep Method:	3550C	Prep Batch:	280-84716	Lab File ID:	Y2755.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	09/09/2011 2114			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	J	9.9	320
Acenaphthylene		16	U	16	320
Anthracene		19	J	16	320
Benzo[a]anthracene		74	J	19	320
Benzo[a]pyrene		63	J	19	320
Benzo[b]fluoranthene		120	J K	25	320
Benzo[ghi]perylene		41	J	15	320
Benzo[k]fluoranthene		39	U K	39	320
Bis(2-chloroethoxy)methane		22	U	22	320
Bis(2-chloroethyl)ether		16	U	16	320
bis (2-chloroisopropyl) ether		22	U	22	320
Bis(2-ethylhexyl) phthalate		110	J B	44	320
4-Bromophenyl phenyl ether		18	U	18	320
Butyl benzyl phthalate		41	U	41	320
Carbazole		35	U	35	320
4-Chloroaniline		79	U	79	320
4-Chloro-3-methylphenol		64	U	64	320
2-Chloronaphthalene		9.6	U	9.6	320
2-Chlorophenol		20	U	20	320
4-Chlorophenyl phenyl ether		20	U	20	320
Chrysene		88	J	26	320
Dibenz(a,h)anthracene		18	U	18	320
Dibenzofuran		19	U	19	320
1,2-Dichlorobenzene		21	U	21	320
1,3-Dichlorobenzene		12	U	12	320
1,4-Dichlorobenzene		13	U	13	320
3,3'-Dichlorobenzidine		87	U	87	640
2,4-Dichlorophenol		9.6	U	9.6	320
Diethyl phthalate		25	U	25	320
2,4-Dimethylphenol		64	U	64	320
Dimethyl phthalate		22	U	22	320
Di-n-butyl phthalate		28	U	28	320
4,6-Dinitro-2-methylphenol		320	U	320	640
2,4-Dinitrophenol		320	U	320	800
2,4-Dinitrotoluene		64	U	64	320
2,6-Dinitrotoluene		27	U	27	320
Di-n-octyl phthalate		14	U	14	320
Fluoranthene		160	J	35	320
Fluorene		17	U	17	320
Hexachlorobenzene		28	U	28	320
Hexachlorobutadiene		9.6	U	9.6	320
Hexachlorocyclopentadiene		48	U	48	320
Hexachloroethane		21	U	21	320
Indeno[1,2,3-cd]pyrene		34	J	21	320
Isophorone		16	U	16	320
2-Methylnaphthalene		18	U	18	320

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Prep Method:	3550C	Prep Batch:	280-84716	Lab File ID:	Y2755.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	09/09/2011 2114			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	320
3 & 4 Methylphenol		32	U	32	320
Naphthalene		30	U	30	320
2-Nitroaniline		48	U	48	320
3-Nitroaniline		70	U	70	320
4-Nitroaniline		70	U	70	320
Nitrobenzene		21	U	21	320
2-Nitrophenol		9.6	U	9.6	320
4-Nitrophenol		94	U	94	640
N-Nitrosodi-n-propylamine		30	U	30	320
N-Nitrosodiphenylamine		20	U	20	320
Pentachlorophenol		320	U	320	640
Phenanthrene		110	J	16	320
Phenol		17	U	17	320
Pyrene		160	J	12	320
1,2,4-Trichlorobenzene		27	U	27	320
2,4,5-Trichlorophenol		9.6	U	9.6	320
2,4,6-Trichlorophenol		9.6	U	9.6	320

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		50 - 120
2-Fluorophenol	72		53 - 120
Nitrobenzene-d5	68		50 - 120
Phenol-d5	80		52 - 120
Terphenyl-d14	96		55 - 120
2,4,6-Tribromophenol	102		51 - 120

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Prep Method:	3550C	Prep Batch:	280-84716	Lab File ID:	Y2755.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	09/09/2011 2114			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **14**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
2213-23-2	Heptane, 2,4-dimethyl-	2.99	190	N J
2216-30-0	Heptane, 2,5-dimethyl-	3.11	190	N J
	Unknown	3.19	2800	N J
52663-58-8	1,1"-Biphenyl, 2,3,4",6-tetrachloro-	9.34	500	N J
39485-83-1	1,1"-Biphenyl, 2,2",4,4",6-Pentachloro-	9.73	910	N J
39485-83-1	1,1"-Biphenyl, 2,2",4,4",6-Pentachloro-	9.87	930	N J
38380-03-9	1,1"-Biphenyl, 2,3,3",4",6-pentachloro-	9.99	200	N J
38380-01-7	1,1"-Biphenyl, 2,2",4,4",5-pentachloro-	10.04	270	N J
38380-04-0	1,1"-Biphenyl, 2,2",3,4",5",6-hexachloro	10.21	310	N J
74472-35-8	1,1"-Biphenyl, 2,3,3",4,6-Pentachloro-	10.24	500	N J
52663-72-6	1,1"-Biphenyl, 2,3",4,4",5,5"-hexachloro	10.35	290	N J
32598-14-4	1,1"-Biphenyl, 2,3,3",4,4"-pentachloro-	10.41	160	N J
38380-08-4	1,1"-Biphenyl, 2,3,3",4,4",5-hexachloro-	10.52	1200	N J
56030-56-9	1,1"-Biphenyl, 2,2",3,4,4",6-Hexachloro-	10.69	140	N J

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Prep Method:	3550C	Prep Batch:	280-84716	Lab File ID:	Y2758.D
Dilution:	1.0			Initial Weight/Volume:	32.3 g
Analysis Date:	09/09/2011 2215			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.6	U	9.6	310
Acenaphthylene		16	U	16	310
Anthracene		16	U	16	310
Benzo[a]anthracene		58	J	19	310
Benzo[a]pyrene		57	J	19	310
Benzo[b]fluoranthene		96	J K	24	310
Benzo[ghi]perylene		40	J	15	310
Benzo[k]fluoranthene		37	U K	37	310
Bis(2-chloroethoxy)methane		21	U	21	310
Bis(2-chloroethyl)ether		15	U	15	310
bis (2-chloroisopropyl) ether		21	U	21	310
Bis(2-ethylhexyl) phthalate		97	J B	43	310
4-Bromophenyl phenyl ether		18	U	18	310
Butyl benzyl phthalate		40	U	40	310
Carbazole		33	U	33	310
4-Chloroaniline		76	U	76	310
4-Chloro-3-methylphenol		61	U	61	310
2-Chloronaphthalene		9.3	U	9.3	310
2-Chlorophenol		20	U	20	310
4-Chlorophenyl phenyl ether		20	U	20	310
Chrysene		67	J	25	310
Dibenz(a,h)anthracene		18	U	18	310
Dibenzofuran		19	U	19	310
1,2-Dichlorobenzene		20	U	20	310
1,3-Dichlorobenzene		11	U	11	310
1,4-Dichlorobenzene		13	U	13	310
3,3'-Dichlorobenzidine		84	U	84	610
2,4-Dichlorophenol		9.3	U	9.3	310
Diethyl phthalate		24	U	24	310
2,4-Dimethylphenol		61	U	61	310
Dimethyl phthalate		21	U	21	310
Di-n-butyl phthalate		27	U	27	310
4,6-Dinitro-2-methylphenol		310	U	310	610
2,4-Dinitrophenol		310	U	310	770
2,4-Dinitrotoluene		61	U	61	310
2,6-Dinitrotoluene		26	U	26	310
Di-n-octyl phthalate		13	U	13	310
Fluoranthene		130	J	33	310
Fluorene		20	J	17	310
Hexachlorobenzene		27	U	27	310
Hexachlorobutadiene		9.3	U	9.3	310
Hexachlorocyclopentadiene		46	U	46	310
Hexachloroethane		20	U	20	310
Indeno[1,2,3-cd]pyrene		28	J	20	310
Isophorone		16	U	16	310
2-Methylnaphthalene		18	U	18	310

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Prep Method:	3550C	Prep Batch:	280-84716	Lab File ID:	Y2758.D
Dilution:	1.0			Initial Weight/Volume:	32.3 g
Analysis Date:	09/09/2011 2215			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		12	U	12	310
3 & 4 Methylphenol		31	U	31	310
Naphthalene		29	U	29	310
2-Nitroaniline		46	U	46	310
3-Nitroaniline		68	U	68	310
4-Nitroaniline		67	U	67	310
Nitrobenzene		20	U	20	310
2-Nitrophenol		9.3	U	9.3	310
4-Nitrophenol		90	U	90	610
N-Nitrosodi-n-propylamine		29	U	29	310
N-Nitrosodiphenylamine		20	U	20	310
Pentachlorophenol		310	U	310	610
Phenanthrene		80	J	16	310
Phenol		17	U	17	310
Pyrene		130	J	11	310
1,2,4-Trichlorobenzene		26	U	26	310
2,4,5-Trichlorophenol		9.3	U	9.3	310
2,4,6-Trichlorophenol		9.3	U	9.3	310

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	80		50 - 120
2-Fluorophenol	78		53 - 120
Nitrobenzene-d5	74		50 - 120
Phenol-d5	81		52 - 120
Terphenyl-d14	91		55 - 120
2,4,6-Tribromophenol	96		51 - 120

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Prep Method:	3550C	Prep Batch:	280-84716	Lab File ID:	Y2758.D
Dilution:	1.0			Initial Weight/Volume:	32.3 g
Analysis Date:	09/09/2011 2215			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **16**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.78	170	N J
1069-53-0	Hexane, 2,3,5-trimethyl-	2.93	130	N J
2213-23-2	Heptane, 2,4-dimethyl-	2.99	240	N J
2216-30-0	Heptane, 2,5-dimethyl-	3.11	240	N J
	Unknown	3.19	3300	N J
544-76-3	Hexadecane	7.92	13	J N J
314-40-9	Bromacil	9.30	160	N J
52663-58-8	1,1"-Biphenyl, 2,3,4",6-tetrachloro-	9.34	330	N J
38380-02-8	1,1"-Biphenyl, 2,2",3,4,5"-pentachloro-	9.73	610	N J
39485-83-1	1,1"-Biphenyl, 2,2",4,4",6-Pentachloro-	9.86	590	N J
25429-29-2	1,1"-Biphenyl, pentachloro-	10.03	220	N J
41411-62-5	1,1"-Biphenyl, 2,3,3",4,5,6-hexachloro-	10.21	200	N J
39485-83-1	1,1"-Biphenyl, 2,2",4,4",6-Pentachloro-	10.24	340	N J
38380-08-4	1,1"-Biphenyl, 2,3,3",4,4",5-hexachloro-	10.35	230	N J
31508-00-6	1,1"-Biphenyl, 2,3",4,4",5-pentachloro-	10.41	140	N J
56030-56-9	1,1"-Biphenyl, 2,2",3,4,4",6-Hexachloro-	10.52	340	N J

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-86030	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-84785	Lab File ID:	054B0701.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	09/13/2011 1225			Final Weight/Volume:	1000 uL
Prep Date:	09/07/2011 1357			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		89000		980	3900
C10-C28		45000		660	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	92		49 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-86030	Instrument ID:	GCS_U2
Prep Method:	3550C	Prep Batch:	280-84785	Lab File ID:	055B0801.D
Dilution:	1.0			Initial Weight/Volume:	31.4 g
Analysis Date:	09/13/2011 1259			Final Weight/Volume:	1000 uL
Prep Date:	09/07/2011 1357			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		60000		950	3800
C10-C28		31000		650	3800

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	95		49 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-85227	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-84720	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	09/09/2011 1753			Injection Volume:	20 uL
Prep Date:	09/06/2011 2100			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.5	U	9.5	95
Acenaphthylene		8.5	U	8.5	95
Anthracene		28		2.9	19
Benzo[a]anthracene		120	X	3.0	14
Benzo[a]pyrene		60		6.1	14
Benzo[b]fluoranthene		67		4.0	14
Benzo[g,h,i]perylene		23	J	6.8	28
Benzo[k]fluoranthene		28		3.7	14
Chrysene		90	X	4.6	38
Dibenzo(a,h)anthracene		10	U	10	28
Fluoranthene		170		12	38
Fluorene		9.8	J	5.0	28
Indeno[1,2,3-cd]pyrene		41		11	28
Naphthalene		11	U	11	95
Phenanthrene		110		11	38
Pyrene		11	U	11	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	108		72 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-85227	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-84720	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	09/09/2011 1823			Injection Volume:	20 uL
Prep Date:	09/06/2011 2100			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	98
Acenaphthylene		8.8	U	8.8	98
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		150	X	3.1	15
Benzo[a]pyrene		68		6.3	15
Benzo[b]fluoranthene		82		4.1	15
Benzo[g,h,i]perylene		35		7.0	29
Benzo[k]fluoranthene		38		3.9	15
Chrysene		130		4.7	39
Dibenzo(a,h)anthracene		11	U	11	29
Fluoranthene		210		13	39
Fluorene		26	J	5.2	29
Indeno[1,2,3-cd]pyrene		53		12	29
Naphthalene		12	U	12	98
Phenanthrene		120	X	12	39
Pyrene		210	X	12	39

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	99		72 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	09/06/2011 2101			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7820	X	1.5	4.9
Antimony		0.48	B	0.37	0.59
Arsenic		2.8		0.65	0.98
Beryllium		0.032	U	0.032	0.20
Boron		2.2		0.96	2.0
Cadmium		0.11	B	0.040	0.20
Calcium		5520	X	13.9	49.2
Chromium		11.0	X	0.057	0.20
Cobalt		7.7	X	0.098	0.98
Copper		15.0		0.21	0.98
Iron		21700	X	3.7	4.9
Lithium		7.6		0.29	2.5
Magnesium		4250		3.6	19.7
Manganese		337	X	0.098	0.98
Molybdenum		0.32	B	0.26	2.0
Nickel		11.1	X	0.12	3.9
Potassium		1430		40.3	295
Selenium		0.85	U	0.85	0.98
Silicon		224		5.6	9.8
Silver		0.16	U	0.16	0.20
Sodium		265		58.0	118
Vanadium		50.3	X	0.092	2.0

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	09/07/2011 2304			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		82.5		0.075	0.49
Lead		8.3		0.27	0.49
Zirconium		19.6		0.35	2.5

Analysis Method:	6010B	Analysis Batch:	280-85210	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	09/08/2011 1659			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Zinc		55.7	X	0.39	0.98

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid
% Moisture: 0.3

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-85237	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84445	Lab File ID:	048AREF.D
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	09/08/2011 2205			Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		9.7		0.0016	0.099

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.64 g
Analysis Date:	09/13/2011 0133			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.012	B	0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	09/06/2011 2111			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7320	X	1.5	4.9
Antimony		0.37	U	0.37	0.59
Arsenic		2.8		0.65	0.98
Beryllium		0.032	U	0.032	0.20
Boron		2.0		0.96	2.0
Cadmium		0.13	B	0.040	0.20
Calcium		5530	X	13.8	49.1
Chromium		9.4	X	0.057	0.20
Cobalt		7.9	X	0.098	0.98
Copper		14.4		0.21	0.98
Iron		22100	X	3.7	4.9
Lithium		7.4		0.29	2.5
Magnesium		3930		3.6	19.6
Manganese		330	X	0.098	0.98
Molybdenum		0.28	B	0.26	2.0
Nickel		9.6	X	0.12	3.9
Potassium		1330		40.2	294
Selenium		0.84	U	0.84	0.98
Silicon		309		5.6	9.8
Silver		0.16	U	0.16	0.20
Sodium		258		57.9	118
Vanadium		52.3	X	0.092	2.0

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	09/07/2011 2313			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		89.6		0.075	0.49
Lead		5.8		0.27	0.49
Zirconium		20.7		0.35	2.5

Analysis Method:	6010B	Analysis Batch:	280-85210	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0			Initial Weight/Volume:	1.02 g
Analysis Date:	09/08/2011 1708			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Zinc		51.0	X	0.39	0.98

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid
% Moisture: 0.1

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-85237	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84445	Lab File ID:	053SMPL.D
Dilution:	1.0			Initial Weight/Volume:	1.01 g
Analysis Date:	09/08/2011 2220			Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		10.5		0.0016	0.099

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	09/13/2011 0140			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.014	B	0.0054	0.016

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK7**

Lab Sample ID: 280-19770-3
Client Matrix: Solid
% Moisture: 0.8

Date Sampled: 08/25/2011 1414
Date Received: 09/01/2011 0900

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-84764	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	09/06/2011 2113			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		174	X	1.5	4.8
Antimony		0.36	U	0.36	0.57
Arsenic		0.63	U	0.63	0.95
Beryllium		0.031	U	0.031	0.19
Boron		0.93	U	0.93	1.9
Cadmium		0.039	U	0.039	0.19
Calcium		39.1	B X	13.4	47.6
Chromium		0.14	B X C	0.055	0.19
Cobalt		0.095	U X	0.095	0.95
Copper		0.21	U	0.21	0.95
Iron		204	X	3.6	4.8
Lithium		0.29	U	0.29	2.4
Magnesium		19.3		3.5	19.0
Manganese		3.8	X	0.095	0.95
Molybdenum		0.25	U	0.25	1.9
Nickel		0.12	U X	0.12	3.8
Potassium		47.1	B	39.0	285
Selenium		0.82	U	0.82	0.95
Silicon		88.1		5.4	9.5
Silver		0.15	U	0.15	0.19
Sodium		56.1	U	56.1	114
Vanadium		0.14	B X	0.089	1.9

Analysis Method:	6010B	Analysis Batch:	280-85005	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	09/07/2011 2316			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Barium		1.8		0.072	0.48
Lead		0.47	B	0.26	0.48
Zirconium		0.79	B	0.34	2.4

Analysis Method:	6010B	Analysis Batch:	280-85210	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	09/08/2011 1711			Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Zinc		1.3	X C	0.38	0.95

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Client Sample ID: **J1KRK7**

Lab Sample ID: 280-19770-3
Client Matrix: Solid
% Moisture: 0.8

Date Sampled: 08/25/2011 1414
Date Received: 09/01/2011 0900

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-85237	Instrument ID:	MT_024
Prep Method:	3050B	Prep Batch:	280-84445	Lab File ID:	054SMPL.D
Dilution:	1.0			Initial Weight/Volume:	1.06 g
Analysis Date:	09/08/2011 2223			Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.080	B	0.0015	0.095

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	09/13/2011 0143			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				

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

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

General Chemistry

Client Sample ID: **J1KRK5**

Lab Sample ID: 280-19770-1
Client Matrix: Solid

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.52		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-84482	Analysis Date: 09/01/2011 1733						DryWt Corrected: N
Percent Moisture	0.27		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-84166	Analysis Date: 09/01/2011 1529						DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

General Chemistry

Client Sample ID: **J1KRK6**

Lab Sample ID: 280-19770-2
Client Matrix: Solid

Date Sampled: 08/25/2011 1356
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.53		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-84482	Analysis Date: 09/01/2011 1737						DryWt Corrected: N
Percent Moisture	0.13		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-84166	Analysis Date: 09/01/2011 1529						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1KRK7**

Lab Sample ID: 280-19770-3
Client Matrix: Solid

Date Sampled: 08/25/2011 1414
Date Received: 09/01/2011 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.80		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-84166 Analysis Date: 09/01/2011 1529 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-84716					
LCS 280-84716/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-84716/1-A	Method Blank	T	Solid	3550C	
280-19770-1	J1KRK5	T	Solid	3550C	
280-19770-1MS	Matrix Spike	T	Solid	3550C	
280-19770-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-19770-2	J1KRK6	T	Solid	3550C	
Analysis Batch:280-85769					
LCS 280-84716/2-A	Lab Control Sample	T	Solid	8270C	280-84716
MB 280-84716/1-A	Method Blank	T	Solid	8270C	280-84716
280-19770-1	J1KRK5	T	Solid	8270C	280-84716
280-19770-1MS	Matrix Spike	T	Solid	8270C	280-84716
280-19770-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-84716
280-19770-2	J1KRK6	T	Solid	8270C	280-84716

Report Basis
T = Total

GC Semi VOA					
Prep Batch: 280-84785					
LCS 280-84785/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-84785/1-A	Method Blank	T	Solid	3550C	
280-19770-1	J1KRK5	T	Solid	3550C	
280-19770-2	J1KRK6	T	Solid	3550C	
280-19770-2MS	Matrix Spike	T	Solid	3550C	
280-19770-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-86030					
LCS 280-84785/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-84785
MB 280-84785/1-A	Method Blank	T	Solid	NWTPH-Dx	280-84785
280-19770-1	J1KRK5	T	Solid	NWTPH-Dx	280-84785
280-19770-2	J1KRK6	T	Solid	NWTPH-Dx	280-84785
280-19770-2MS	Matrix Spike	T	Solid	NWTPH-Dx	280-84785
280-19770-2MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-84785

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-84340					
LCS 280-84340/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-84340/1-A	Method Blank	T	Solid	7471A	
280-19770-1	J1KRK5	T	Solid	7471A	
280-19770-1DU	Duplicate	T	Solid	7471A	
280-19770-1MS	Matrix Spike	T	Solid	7471A	
280-19770-2	J1KRK6	T	Solid	7471A	
280-19770-3	J1KRK7	T	Solid	7471A	
Prep Batch: 280-84388					
LCS 280-84388/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-84388/1-A	Method Blank	T	Solid	3050B	
280-19770-1	J1KRK5	T	Solid	3050B	
280-19770-1DU	Duplicate	T	Solid	3050B	
280-19770-1MS	Matrix Spike	T	Solid	3050B	
280-19770-2	J1KRK6	T	Solid	3050B	
280-19770-3	J1KRK7	T	Solid	3050B	
Prep Batch: 280-84445					
LCS 280-84445/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-84445/1-A	Method Blank	T	Solid	3050B	
280-19770-1	J1KRK5	T	Solid	3050B	
280-19770-1DU	Duplicate	T	Solid	3050B	
280-19770-1MS	Matrix Spike	T	Solid	3050B	
280-19770-2	J1KRK6	T	Solid	3050B	
280-19770-3	J1KRK7	T	Solid	3050B	
Analysis Batch:280-84764					
LCS 280-84388/2-A	Lab Control Sample	T	Solid	6010B	280-84388
MB 280-84388/1-A	Method Blank	T	Solid	6010B	280-84388
280-19770-1	J1KRK5	T	Solid	6010B	280-84388
280-19770-1DU	Duplicate	T	Solid	6010B	280-84388
280-19770-1MS	Matrix Spike	T	Solid	6010B	280-84388
280-19770-2	J1KRK6	T	Solid	6010B	280-84388
280-19770-3	J1KRK7	T	Solid	6010B	280-84388
Analysis Batch:280-85005					
LCS 280-84388/2-A	Lab Control Sample	T	Solid	6010B	280-84388
MB 280-84388/1-A	Method Blank	T	Solid	6010B	280-84388
280-19770-1	J1KRK5	T	Solid	6010B	280-84388
280-19770-1DU	Duplicate	T	Solid	6010B	280-84388
280-19770-1MS	Matrix Spike	T	Solid	6010B	280-84388
280-19770-2	J1KRK6	T	Solid	6010B	280-84388
280-19770-3	J1KRK7	T	Solid	6010B	280-84388

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-85210					
LCS 280-84388/2-A	Lab Control Sample	T	Solid	6010B	280-84388
MB 280-84388/1-A	Method Blank	T	Solid	6010B	280-84388
280-19770-1	J1KRK5	T	Solid	6010B	280-84388
280-19770-1DU	Duplicate	T	Solid	6010B	280-84388
280-19770-1MS	Matrix Spike	T	Solid	6010B	280-84388
280-19770-2	J1KRK6	T	Solid	6010B	280-84388
280-19770-3	J1KRK7	T	Solid	6010B	280-84388
Analysis Batch:280-85237					
LCS 280-84445/2-A	Lab Control Sample	T	Solid	6020	280-84445
MB 280-84445/1-A	Method Blank	T	Solid	6020	280-84445
280-19770-1	J1KRK5	T	Solid	6020	280-84445
280-19770-1DU	Duplicate	T	Solid	6020	280-84445
280-19770-1MS	Matrix Spike	T	Solid	6020	280-84445
280-19770-2	J1KRK6	T	Solid	6020	280-84445
280-19770-3	J1KRK7	T	Solid	6020	280-84445
Analysis Batch:280-85697					
LCS 280-84340/2-A	Lab Control Sample	T	Solid	7471A	280-84340
MB 280-84340/1-A	Method Blank	T	Solid	7471A	280-84340
280-19770-1	J1KRK5	T	Solid	7471A	280-84340
280-19770-1DU	Duplicate	T	Solid	7471A	280-84340
280-19770-1MS	Matrix Spike	T	Solid	7471A	280-84340
280-19770-2	J1KRK6	T	Solid	7471A	280-84340
280-19770-3	J1KRK7	T	Solid	7471A	280-84340

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-84144					
280-19770-1	J1KRK5	S	Solid	DI Leach	
280-19770-2	J1KRK6	S	Solid	DI Leach	
280-19770-2DU	Duplicate	S	Solid	DI Leach	
Analysis Batch:280-84166					
280-19770-1	J1KRK5	T	Solid	D-2216	
280-19770-1DU	Duplicate	T	Solid	D-2216	
280-19770-2	J1KRK6	T	Solid	D-2216	
280-19770-3	J1KRK7	T	Solid	D-2216	
Analysis Batch:280-84482					
LCS 280-84482/4	Lab Control Sample	T	Water	9045C	
LCSD 280-84482/5	Lab Control Sample Duplicate	T	Water	9045C	
280-19770-1	J1KRK5	S	Solid	9045C	
280-19770-2	J1KRK6	S	Solid	9045C	
280-19770-2DU	Duplicate	S	Solid	9045C	

Report Basis
S = Soluble
T = Total

HPLC/IC					
Prep Batch: 280-84720					
LCS 280-84720/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-84720/1-A	Method Blank	T	Solid	3550C	
280-19770-1	J1KRK5	T	Solid	3550C	
280-19770-2	J1KRK6	T	Solid	3550C	
280-19770-2MS	Matrix Spike	T	Solid	3550C	
280-19770-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-85227					
LCS 280-84720/2-A	Lab Control Sample	T	Solid	8310	280-84720
MB 280-84720/1-A	Method Blank	T	Solid	8310	280-84720
280-19770-1	J1KRK5	T	Solid	8310	280-84720
280-19770-2	J1KRK6	T	Solid	8310	280-84720
280-19770-2MS	Matrix Spike	T	Solid	8310	280-84720
280-19770-2MSD	Matrix Spike Duplicate	T	Solid	8310	280-84720

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84716

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-84716/1-A	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2743.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	09/09/2011 1710	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	10	U	10	320
Acenaphthylene	17	U	17	320
Anthracene	17	U	17	320
Benzo[a]anthracene	19	U	19	320
Benzo[a]pyrene	19	U	19	320
Benzo[b]fluoranthene	26	U	26	320
Benzo[ghi]perylene	16	U	16	320
Benzo[k]fluoranthene	39	U	39	320
Bis(2-chloroethoxy)methane	22	U	22	320
Bis(2-chloroethyl)ether	16	U	16	320
bis (2-chloroisopropyl) ether	22	U	22	320
Bis(2-ethylhexyl) phthalate	88.5	J	45	320
4-Bromophenyl phenyl ether	19	U	19	320
Butyl benzyl phthalate	42	U	42	320
Carbazole	35	U	35	320
4-Chloroaniline	80	U	80	320
4-Chloro-3-methylphenol	64	U	64	320
2-Chloronaphthalene	9.7	U	9.7	320
2-Chlorophenol	20	U	20	320
4-Chlorophenyl phenyl ether	20	U	20	320
Chrysene	26	U	26	320
Dibenz(a,h)anthracene	19	U	19	320
Dibenzofuran	19	U	19	320
1,2-Dichlorobenzene	21	U	21	320
1,3-Dichlorobenzene	12	U	12	320
1,4-Dichlorobenzene	13	U	13	320
3,3'-Dichlorobenzidine	88	U	88	640
2,4-Dichlorophenol	9.7	U	9.7	320
Diethyl phthalate	25	U	25	320
2,4-Dimethylphenol	64	U	64	320
Dimethyl phthalate	22	U	22	320
Di-n-butyl phthalate	28	U	28	320
4,6-Dinitro-2-methylphenol	320	U	320	640
2,4-Dinitrophenol	320	U	320	800
2,4-Dinitrotoluene	64	U	64	320
2,6-Dinitrotoluene	27	U	27	320
Di-n-octyl phthalate	14	U	14	320
Fluoranthene	35	U	35	320
Fluorene	18	U	18	320
Hexachlorobenzene	28	U	28	320
Hexachlorobutadiene	9.7	U	9.7	320
Hexachlorocyclopentadiene	49	U	49	320
Hexachloroethane	21	U	21	320
Indeno[1,2,3-cd]pyrene	21	U	21	320
Isophorone	17	U	17	320

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84716

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-84716/1-A	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2743.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	09/09/2011 1710	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	19	U	19	320
2-Methylphenol	13	U	13	320
3 & 4 Methylphenol	32	U	32	320
Naphthalene	30	U	30	320
2-Nitroaniline	49	U	49	320
3-Nitroaniline	71	U	71	320
4-Nitroaniline	71	U	71	320
Nitrobenzene	21	U	21	320
2-Nitrophenol	9.7	U	9.7	320
4-Nitrophenol	94	U	94	640
N-Nitrosodi-n-propylamine	30	U	30	320
N-Nitrosodiphenylamine	20	U	20	320
Pentachlorophenol	320	U	320	640
Phenanthrene	17	U	17	320
Phenol	18	U	18	320
Pyrene	12	U	12	320
1,2,4-Trichlorobenzene	27	U	27	320
2,4,5-Trichlorophenol	9.7	U	9.7	320
2,4,6-Trichlorophenol	9.7	U	9.7	320

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	78	50 - 120
2-Fluorophenol	83	53 - 120
Nitrobenzene-d5	78	50 - 120
Phenol-d5	82	52 - 120
Terphenyl-d14	91	55 - 120
2,4,6-Tribromophenol	89	51 - 120

Method Blank TICs- Batch: 280-84716

Cas Number	Analyte	RT	Est. Result	Qual
826-36-8	4-Piperidinone, 2,2,6,6-tetramethyl-	5.38	145	N J
2216-30-0	Heptane, 2,5-dimethyl-	3.11	276	N J
	Unknown	1.79	146	N J
	Unknown	2.93	159	N J
	Unknown	1.61	1820	N J
	Unknown	2.99	269	N J
	Unknown	3.19	3560	N J

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Control Sample - Batch: 280-84716

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-84716/2-A	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2744.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	09/09/2011 1730	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2670	2250	84	52 - 120	
Acenaphthylene	2670	2410	90	53 - 120	
Anthracene	2670	2480	93	57 - 120	
Benzo[a]anthracene	2670	2450	92	55 - 120	
Benzo[a]pyrene	2670	2410	90	54 - 120	
Benzo[b]fluoranthene	2670	2650	99	52 - 120	
Benzo[ghi]perylene	2670	2740	103	50 - 120	
Benzo[k]fluoranthene	2670	2400	90	54 - 120	
Bis(2-chloroethoxy)methane	2670	2040	77	49 - 120	
Bis(2-chloroethyl)ether	2670	1960	73	48 - 120	
bis (2-chloroisopropyl) ether	2670	1920	72	47 - 120	
Bis(2-ethylhexyl) phthalate	2670	2520	95	51 - 120	
4-Bromophenyl phenyl ether	2670	2390	90	53 - 120	
Butyl benzyl phthalate	2670	2540	95	49 - 120	
Carbazole	2670	2470	93	54 - 120	
4-Chloroaniline	2670	1700	64	28 - 120	
4-Chloro-3-methylphenol	2670	2420	91	57 - 120	
2-Chloronaphthalene	2670	2190	82	53 - 120	
2-Chlorophenol	2670	2050	77	53 - 120	
4-Chlorophenyl phenyl ether	2670	2310	87	55 - 120	
Chrysene	2670	2450	92	55 - 120	
Dibenz(a,h)anthracene	2670	2760	104	55 - 120	
Dibenzofuran	2670	2320	87	56 - 120	
1,2-Dichlorobenzene	2670	1930	72	48 - 120	
1,3-Dichlorobenzene	2670	1900	71	46 - 120	
1,4-Dichlorobenzene	2670	1920	72	46 - 120	
3,3'-Dichlorobenzidine	2670	1810	68	34 - 120	
2,4-Dichlorophenol	2670	2240	84	53 - 120	
Diethyl phthalate	2670	2420	91	57 - 120	
2,4-Dimethylphenol	2670	2160	81	53 - 120	
Dimethyl phthalate	2670	2410	90	57 - 120	
Di-n-butyl phthalate	2670	2640	99	57 - 120	
4,6-Dinitro-2-methylphenol	2670	2360	89	30 - 120	
2,4-Dinitrophenol	2670	2250	84	15 - 120	
2,4-Dinitrotoluene	2670	2520	94	53 - 120	
2,6-Dinitrotoluene	2670	2350	88	53 - 120	
Di-n-octyl phthalate	2670	2630	99	54 - 120	
Fluoranthene	2670	2550	96	55 - 120	
Fluorene	2670	2360	89	55 - 120	
Hexachlorobenzene	2670	2390	90	51 - 120	
Hexachlorobutadiene	2670	1920	72	48 - 120	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Control Sample - Batch: 280-84716

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-84716/2-A	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2744.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	09/09/2011 1730	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorocyclopentadiene	2670	1910	72	35 - 120	
Hexachloroethane	2670	1890	71	46 - 120	
Indeno[1,2,3-cd]pyrene	2670	2670	100	54 - 120	
Isophorone	2670	2110	79	46 - 120	
2-Methylnaphthalene	2670	2070	78	55 - 120	
2-Methylphenol	2670	2080	78	51 - 120	
3 & 4 Methylphenol	5330	4290	80	53 - 120	
Naphthalene	2670	2060	77	50 - 120	
2-Nitroaniline	2670	2540	95	50 - 120	
3-Nitroaniline	2670	2310	87	35 - 120	
4-Nitroaniline	2670	2490	93	44 - 120	
Nitrobenzene	2670	2050	77	49 - 120	
2-Nitrophenol	2670	2120	80	53 - 120	
4-Nitrophenol	2670	2600	98	41 - 120	
N-Nitrosodi-n-propylamine	2670	2030	76	51 - 120	
N-Nitrosodiphenylamine	2280	2000	88	55 - 120	
Pentachlorophenol	2670	2190	82	30 - 120	
Phenanthrene	2670	2430	91	58 - 120	
Phenol	2670	2120	79	54 - 120	
Pyrene	2670	2470	93	50 - 120	
1,2,4-Trichlorobenzene	2670	1940	73	50 - 120	
2,4,5-Trichlorophenol	2670	2400	90	56 - 120	
2,4,6-Trichlorophenol	2670	2390	90	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	81	50 - 120
2-Fluorophenol	77	53 - 120
Nitrobenzene-d5	77	50 - 120
Phenol-d5	79	52 - 120
Terphenyl-d14	92	55 - 120
2,4,6-Tribromophenol	99	51 - 120

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84716

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-19770-1	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2756.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	09/09/2011 2134			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-19770-1	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2757.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	09/09/2011 2155			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	83	81	52 - 120	0	30		
Acenaphthylene	88	86	53 - 120	1	30		
Anthracene	87	86	57 - 120	2	30		
Benzo[a]anthracene	86	89	55 - 120	6	30		
Benzo[a]pyrene	83	83	54 - 120	3	30		
Benzo[b]fluoranthene	87	79	52 - 120	6	44		
Benzo[ghi]perylene	90	91	50 - 120	3	31		
Benzo[k]fluoranthene	87	95	54 - 120	11	30		
Bis(2-chloroethoxy)methane	72	71	49 - 120	2	30		
Bis(2-chloroethyl)ether	66	66	48 - 120	1	30		
bis (2-chloroisopropyl) ether	65	64	47 - 120	1	30		
Bis(2-ethylhexyl) phthalate	90	93	51 - 120	5	30		
4-Bromophenyl phenyl ether	85	86	53 - 120	3	30		
Butyl benzyl phthalate	92	95	49 - 120	5	30		
Carbazole	87	87	54 - 120	2	30		
4-Chloroaniline	63	62	28 - 120	0	30		
4-Chloro-3-methylphenol	90	88	57 - 120	0	30		
2-Chloronaphthalene	80	79	53 - 120	2	30		
2-Chlorophenol	71	71	53 - 120	1	30		
4-Chlorophenyl phenyl ether	85	85	55 - 120	2	30		
Chrysene	82	88	55 - 120	9	35		
Dibenz(a,h)anthracene	94	95	55 - 120	3	30		
Dibenzofuran	85	83	56 - 120	1	30		
1,2-Dichlorobenzene	66	64	48 - 120	1	30		
1,3-Dichlorobenzene	64	62	46 - 120	0	32		
1,4-Dichlorobenzene	65	63	46 - 120	1	30		
3,3'-Dichlorobenzidine	59	63	34 - 120	9	30		
2,4-Dichlorophenol	84	85	53 - 120	3	30		
Diethyl phthalate	88	85	57 - 120	1	30		
2,4-Dimethylphenol	83	82	53 - 120	1	30		
Dimethyl phthalate	85	84	57 - 120	1	30		
Di-n-butyl phthalate	94	94	57 - 120	2	30		

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84716

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-19770-1	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2756.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	09/09/2011 2134			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-19770-1	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2757.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	09/09/2011 2155			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,6-Dinitro-2-methylphenol	44	42	30 - 120	2	30		
2,4-Dinitrophenol	30	29	15 - 120	1	34	J	J
2,4-Dinitrotoluene	89	88	53 - 120	2	30		
2,6-Dinitrotoluene	84	84	53 - 120	2	30		
Di-n-octyl phthalate	99	101	54 - 120	5	30		
Fluoranthene	90	89	55 - 120	2	30		
Fluorene	87	85	55 - 120	1	30		
Hexachlorobenzene	85	86	51 - 120	4	30		
Hexachlorobutadiene	67	68	48 - 120	4	30		
Hexachlorocyclopentadiene	40	40	35 - 120	3	30		
Hexachloroethane	61	60	46 - 120	1	30		
Indeno[1,2,3-cd]pyrene	84	89	54 - 120	8	30		
Isophorone	74	75	46 - 120	3	30		
2-Methylnaphthalene	76	75	55 - 120	2	30		
2-Methylphenol	77	77	51 - 120	2	30		
3 & 4 Methylphenol	79	79	53 - 120	2	30		
Naphthalene	72	72	50 - 120	2	30		
2-Nitroaniline	92	92	50 - 120	2	30		
3-Nitroaniline	83	81	35 - 120	0	30		
4-Nitroaniline	91	89	44 - 120	0	30		
Nitrobenzene	70	70	49 - 120	2	30		
2-Nitrophenol	73	73	53 - 120	2	30		
4-Nitrophenol	91	91	41 - 120	2	30		
N-Nitrosodi-n-propylamine	70	71	51 - 120	4	30		
N-Nitrosodiphenylamine	85	83	55 - 120	1	36		
Pentachlorophenol	75	76	30 - 120	4	30		
Phenanthrene	87	85	58 - 120	0	30		
Phenol	76	76	54 - 120	2	30		
Pyrene	89	90	50 - 120	3	38		
1,2,4-Trichlorobenzene	68	68	50 - 120	2	30		
2,4,5-Trichlorophenol	89	88	56 - 120	2	30		
2,4,6-Trichlorophenol	91	88	50 - 120	1	30		

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84716

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-19770-1	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2756.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	09/09/2011 2134			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-19770-1	Analysis Batch:	280-85769	Instrument ID:	MSS_Y
Client Matrix:	Solid	Prep Batch:	280-84716	Lab File ID:	Y2757.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	09/09/2011 2155			Final Weight/Volume:	1000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	78	77	50 - 120
2-Fluorophenol	71	68	53 - 120
Nitrobenzene-d5	70	69	50 - 120
Phenol-d5	75	75	52 - 120
Terphenyl-d14	87	88	55 - 120
2,4,6-Tribromophenol	95	93	51 - 120

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84785

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-84785/1-A	Analysis Batch:	280-86030	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-84785	Lab File ID:	052B0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.3 g
Analysis Date:	09/13/2011 1119	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/07/2011 1357			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	960	U	960	3800
C10-C28	650	U	650	3800

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	91	49 - 115

Lab Control Sample - Batch: 280-84785

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-84785/2-A	Analysis Batch:	280-86030	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-84785	Lab File ID:	053B0601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.4 g
Analysis Date:	09/13/2011 1152	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	09/07/2011 1357			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	63700	56700	89	57 - 115	
C10-C28	63700	56700	89	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	89	49 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84785

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-19770-2	Analysis Batch:	280-86030	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-84785	Lab File ID:	056B0901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	09/13/2011 1332			Final Weight/Volume:	1000 uL
Prep Date:	09/07/2011 1357			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-19770-2	Analysis Batch:	280-86030	Instrument ID:	GCS_U2
Client Matrix:	Solid	Prep Batch:	280-84785	Lab File ID:	057B1001.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	09/13/2011 1405			Final Weight/Volume:	1000 uL
Prep Date:	09/07/2011 1357			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	67	84	57 - 115	11	23		
C10-C28	63	81	56 - 115	16	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	85	92	49 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84720

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-84720/1-A	Analysis Batch:	280-85227	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-84720	Lab File ID:	G0909014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	09/09/2011 1652	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.3	U	9.3	93
Acenaphthylene	8.4	U	8.4	93
Anthracene	2.9	U	2.9	19
Benzo[a]anthracene	3.0	U	3.0	14
Benzo[a]pyrene	6.0	U	6.0	14
Benzo[b]fluoranthene	3.9	U	3.9	14
Benzo[g,h,i]perylene	6.7	U	6.7	28
Benzo[k]fluoranthene	3.7	U	3.7	14
Chrysene	4.5	U	4.5	37
Dibenzo(a,h)anthracene	10	U	10	28
Fluoranthene	12	U	12	37
Fluorene	4.9	U	4.9	28
Indeno[1,2,3-cd]pyrene	11	U	11	28
Naphthalene	11	U	11	93
Phenanthrene	11	U	11	37
Pyrene	11	U	11	37

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	83	72 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Control Sample - Batch: 280-84720

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-84720/2-A	Analysis Batch:	280-85227	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-84720	Lab File ID:	G0909015.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	09/09/2011 1722	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1980	2010	101	78 - 116	
Acenaphthylene	1980	1880	95	76 - 115	
Anthracene	1980	1830	92	74 - 115	
Benzo[a]anthracene	1980	1980	100	85 - 120	
Benzo[a]pyrene	1980	1870	94	74 - 121	
Benzo[b]fluoranthene	1980	1990	100	85 - 115	
Benzo[g,h,i]perylene	1980	1980	100	85 - 120	
Benzo[k]fluoranthene	1980	1910	96	85 - 115	
Chrysene	1980	1910	96	83 - 115	
Dibenzo(a,h)anthracene	1980	1950	99	83 - 115	
Fluoranthene	1980	1950	99	83 - 115	
Fluorene	1980	1900	96	80 - 115	
Indeno[1,2,3-cd]pyrene	1980	1960	99	85 - 123	
Naphthalene	1980	1890	96	80 - 121	
Phenanthrene	1980	1930	97	80 - 115	
Pyrene	1980	1890	96	75 - 116	

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	86	72 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-84720

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-19770-2	Analysis Batch:	280-85227	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-84720	Lab File ID:	G0909018.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.4 g
Analysis Date:	09/09/2011 1854			Final Weight/Volume:	4000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-19770-2	Analysis Batch:	280-85227	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-84720	Lab File ID:	G0909019.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	09/09/2011 1924			Final Weight/Volume:	4000 uL
Prep Date:	09/06/2011 2100			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	91	104	78 - 116	16	20		
Acenaphthylene	86	91	76 - 115	8	21		
Anthracene	87	93	74 - 115	9	20		
Benzo[a]anthracene	89	99	85 - 120	12	20		
Benzo[a]pyrene	88	97	74 - 121	12	20		
Benzo[b]fluoranthene	90	98	85 - 115	11	20		
Benzo[g,h,i]perylene	92	95	85 - 120	5	20		
Benzo[k]fluoranthene	91	99	85 - 115	10	20		
Chrysene	87	99	83 - 115	14	20		
Dibenzo(a,h)anthracene	92	96	83 - 115	6	20		
Fluoranthene	100	113	83 - 115	13	20		
Fluorene	90	95	80 - 115	8	20		
Indeno[1,2,3-cd]pyrene	91	98	85 - 123	9	20		
Naphthalene	90	96	80 - 121	9	20		
Phenanthrene	90	98	80 - 115	11	20		
Pyrene	79	88	75 - 116	12	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	102	109	72 - 115

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-84388/1-A	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/06/2011 2057	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.0670	B	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lithium	0.30	U	0.30	2.5
Magnesium	3.7	U	3.7	20.0
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0

Method Blank - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-84388/1-A	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/07/2011 2300	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Barium	0.104	B	0.076	0.50
Lead	0.27	U	0.27	0.50
Zirconium	0.35	U	0.35	2.5

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-84388/1-A	Analysis Batch:	280-85210	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/08/2011 1654	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Zinc	0.536	B	0.40	1.0

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Control Sample - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-84388/2-A	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/06/2011 2059	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	208.2	104	82 - 116	
Antimony	50.0	49.04	98	82 - 110	
Arsenic	100	100.4	100	85 - 110	
Beryllium	5.00	5.47	109	84 - 114	
Boron	100	96.93	97	81 - 110	
Cadmium	10.0	10.51	105	87 - 110	
Calcium	5000	5256	105	82 - 114	
Chromium	20.0	20.66	103	84 - 114	
Cobalt	50.0	50.32	101	87 - 110	
Copper	25.0	24.48	98	88 - 110	
Iron	100	103.0	103	87 - 120	
Lithium	100	100.2	100	90 - 110	
Magnesium	5000	5040	101	90 - 110	
Manganese	50.0	50.48	101	88 - 110	
Molybdenum	100	102.8	103	86 - 110	
Nickel	50.0	50.67	101	87 - 110	
Potassium	5000	4895	98	89 - 110	
Selenium	200	204.8	102	83 - 110	
Silicon	1000	219.1	22	10 - 70	
Silver	5.00	5.31	106	87 - 114	
Sodium	5000	5247	105	90 - 112	
Vanadium	50.0	51.49	103	88 - 110	

Lab Control Sample - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-84388/2-A	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/07/2011 2302	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Barium	200	192.4	96	87 - 112	
Lead	50.0	52.24	104	86 - 110	
Zirconium	50.0	48.86	98	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Control Sample - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-84388/2-A	Analysis Batch:	280-85210	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/08/2011 1656	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Zinc	50.0	51.68	103	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	09/06/2011 2108	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7820		187	9466	877	50 - 200	4
Antimony	0.48	B	46.9	23.40	49	20 - 200	
Arsenic	2.8		93.7	84.54	87	76 - 111	
Beryllium	0.032	U	4.69	4.25	91	72 - 105	
Boron	2.2		93.7	79.09	82	75 - 107	
Cadmium	0.11	B	9.37	8.79	93	40 - 130	
Calcium	5520		4690	10440	105	43 - 165	
Chromium	11.0		18.7	27.41	87	70 - 200	
Cobalt	7.7		46.9	48.19	86	72 - 106	
Copper	15.0		23.4	34.42	83	37 - 187	
Iron	21700		93.7	22900	1294	70 - 200	4
Lithium	7.6		93.7	90.70	89	84 - 109	
Magnesium	4250		4690	8798	97	64 - 145	
Manganese	337		46.9	410.3	157	40 - 200	4
Molybdenum	0.32	B	93.7	80.66	86	75 - 103	
Nickel	11.1		46.9	50.74	84	61 - 126	
Potassium	1430		4690	5567	88	56 - 172	
Selenium	0.85	U	187	165.6	88	76 - 104	
Silicon	224		937	437.4	23	20 - 200	
Silver	0.16	U	4.69	4.47	95	75 - 141	
Sodium	265		4690	4798	97	78 - 111	
Vanadium	50.3		46.9	97.60	101	50 - 169	

Matrix Spike - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	09/07/2011 2311	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Barium	82.5	187	243.3	86	52 - 159	
Lead	8.3	46.9	47.57	84	70 - 200	
Zirconium	19.6	46.9	62.93	92	75 - 125	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Matrix Spike - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85210	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.07 g
Analysis Date:	09/08/2011 1706	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Zinc	55.7	46.9	100.3	95	70 - 200	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Duplicate - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-84764	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090611.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.13 g
Analysis Date:	09/06/2011 2106	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	7820		7939	1	40	
Antimony	0.48	B	0.34	NC	40	U
Arsenic	2.8		2.91	6	30	
Beryllium	0.032	U	0.029	NC	30	U
Boron	2.2		1.98	10	30	
Cadmium	0.11	B	0.124	9	30	B
Calcium	5520		5618	2	30	
Chromium	11.0		10.34	6	40	
Cobalt	7.7		7.75	0.1	30	
Copper	15.0		13.96	7	30	
Iron	21700		22200	2	40	
Lithium	7.6		8.10	6	30	
Magnesium	4250		4401	3	30	
Manganese	337		345.3	2	40	
Molybdenum	0.32	B	0.250	24	30	B
Nickel	11.1		10.55	5	30	
Potassium	1430		1482	4	40	
Selenium	0.85	U	0.76	NC	30	U
Silicon	224		225.5	0.5	40	
Silver	0.16	U	0.14	NC	30	U
Sodium	265		257.4	3	30	
Vanadium	50.3		50.79	1	30	

Duplicate - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85005	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A5090711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.13 g
Analysis Date:	09/07/2011 2309	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Barium	82.5	84.69	3	30	
Lead	8.3	6.51	24	40	
Zirconium	19.6	19.48	0.8	30	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Duplicate - Batch: 280-84388

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85210	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-84388	Lab File ID:	25A1090811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.13 g
Analysis Date:	09/08/2011 1703	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/06/2011 0530				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Zinc	55.7	54.75	2	40	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84445

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 280-84445/1-A	Analysis Batch:	280-85237	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84445	Lab File ID:	046_BLK.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/08/2011 2159	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Uranium	0.00336	B	0.0016	0.10

Lab Control Sample - Batch: 280-84445

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCS 280-84445/2-A	Analysis Batch:	280-85237	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84445	Lab File ID:	047_LCS.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	09/08/2011 2202	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Uranium	20.0	20.10	101	85 - 123	

Matrix Spike - Batch: 280-84445

Method: 6020
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85237	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84445	Lab File ID:	052_MS.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.04 g
Analysis Date:	09/08/2011 2217	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Uranium	9.7	19.3	30.39	107	85 - 123	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Duplicate - Batch: 280-84445

Method: 6020
Preparation: 3050B

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85237	Instrument ID:	MT_024
Client Matrix:	Solid	Prep Batch:	280-84445	Lab File ID:	051_DU.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 g
Analysis Date:	09/08/2011 2214	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/08/2011 1400				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Uranium	9.7	10.04	3	20	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Method Blank - Batch: 280-84340

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-84340/1-A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	09/13/2011 0129	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-84340

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-84340/2-A	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	.6 g
Analysis Date:	09/13/2011 0131	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

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

Matrix Spike - Batch: 280-84340

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	09/13/2011 0136	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.012	B	0.392	0.374	93	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Duplicate - Batch: 280-84340

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-19770-1	Analysis Batch:	280-85697	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-84340	Lab File ID:	110912AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.62 g
Analysis Date:	09/13/2011 0138	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 1740				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.012	B	0.0126	9	20	B

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-84482

Method: 9045C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-84482/4	Analysis Batch:	280-84482	Instrument ID:	WC_Orion 3 Star
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	09/01/2011 1724	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-84482/5	Analysis Batch:	280-84482	Instrument ID:	WC_Orion 3 Star
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	09/01/2011 1728	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
pH adj. to 25 deg C-Soluble	100	100	97 - 103	0	5		

Duplicate - Batch: 280-84482

Method: 9045C
Preparation: N/A

Lab Sample ID:	280-19770-2	Analysis Batch:	280-84482	Instrument ID:	WC_Orion 3 Star
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-84144	Initial Weight/Volume:	1.0 mL
Analysis Date:	09/01/2011 1739	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	09/01/2011 1404				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	8.53	8.530	0	5	

Client: Washington Closure Hanford

Job Number: 280-19770-1
Sdg Number: J01260

Duplicate - Batch: 280-84166

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-19770-1	Analysis Batch:	280-84166	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/01/2011 1529	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	0.27	0.10	NC	20	U

~~A.X~~ 1.4 VOC 2014 1Hr

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-148-027	Page 1 of 1

Collector: Q. Stowe	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 300 Area Field Remediation - Soil Full Protocol	Sampling Location: 300-16:1 Verification		SAF No.: RC-148
Ice Chest No.: WCH-11-014 1of3	Field Logbook No.: EL-1395-18	COA: R300162000	Method of Shipment: Hand Deliver/Government Vehicle/FedEx
Shipped To: TestAmerica Incorporated, Richland - DENVER	Offsite Property No.: 14100820		Bill of Lading/Air Bill No.: SEE OSPC

POSSIBLE SAMPLE HAZARDS/REMARKS

~~Potential Radioactive~~ < DOT Limits
A4 8-31-11

Special Handling and/or Storage

Cool 4 degrees C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	None	None			
Type of Container	G/P	G/P	aG	aG	aG	G/P	G/P			
No. of Container(s)	1	1	1	1	1	1	1			
Volume	60mL	60mL	120mL	120mL	120mL	60mL	60g			
SAMPLE ANALYSIS	See item (1) in Special Instructions.	pH (Soil) - 9045	TPH-Diesel Range - WTPH-D +	Semi-VOA - 8270A (TCL)	PAHs - 8310	Isotopic Uranium	RCF GEA Slipping Screen			

Sample No.	Matrix *	Sample Date	Sample Time								RCF		
J1KRK5	SOIL	8/25/11	1356	✓	✓	✓	✓	✓					
J1KRK6	SOIL	8/25/11	1356	✓	✓	✓	✓	✓			30183		
J1KRK7	SOIL	8/25/11	1414	✓	✓	✓ A4 8-25-11	✓						

8/25/11

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Quincy Stowe	8/25/11 1450	DAVID BECKER	8/25/11 1450
DAVID BECKER	8/25/11 1625	1060, #2 A. Freier	8-25-11 1625
WCH A. Freier	1215 1060#2 8-31-11	Fed Ex	
			9/1/11 0900

SPECIAL INSTRUCTIONS

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

SOG
J01260

REVIEWED BY JRE
DATE 8-31-11

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

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

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Project 28002142 -60OTE -Solid

Analytical Due:

Report Due: 9/22/11 (14d TAT)

Sample Check-in List

Date/Time Received: 9/1/11 900 GM Screen Result 12 microR/hr

Client: Washington Closure Hanford SDG #: J01260 NA[ ] SAF #: RC-148 NA [ ]

Job Number: 19770 Chain of Custody # RC-148-027

Shipping Container ID: ERC-96-014 Air Bill # 795141476052

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 1.4 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ Tape
   - ✓ Custody Seals
   - ✓ Hazard Lables
   - ✓ Appropriate Sample Lables
9. Samples are:
   - ✓ In Good Condition
   - ___ Broken
   - ___ Leaking
   - ___ Have Air Bubbles (Only for samples requiring no head space.)
10. Sample pH taken? NA [✓] pH<2 [ ] pH>2 [ ] pH>9 [ ] Amount HNO_3 Added ___
11. Sample Location, Sample Collector Listed? *
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): ___

Sample Custodian: [signature] Date: 9/1/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 9/1/11

ERC-96-014
1.4.

From: (509) 376-7768
1162 SHIPPING DEPT
US DOE
2355 STEVENS DR

RICHLAND, WA 99354

Origin ID: PSCA

FedEx. Express

J11201104290225

Ship Date: 31AUG11
ActWgt: 70.0 LB
CAD: 5851986/INET3180

Delivery Address Bar Code

Ref # R300162000
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100
BILL THIRD PARTY

KAE YODER
TEST AMERICA
4955 YARROW ST # A100870

ARVADA, CO 80002

3 of 3

THU - 01 SEP A1
PRIORITY OVERNIGHT

MPS# 7951 4147 6052
0263
Mstr# 7951 4147 5733 0201

XH WHHA

80002
CO-US
DEN

50FG2/4299/F5F4

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2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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