0096438

SAF-RC-190
100N Field Remediation – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 5/17/11
INITIAL/DATE

COMMENTS:

SDG J01093 SAF-RC-190

Rad only Chem only ☑ Rad & Chem

☑ Complete Partial

Sample Location: 124-N-4 Excavation

RECEIVED
MAY 20 2011
EDMC

Analytical Data Package Prepared For

Washington Closure Hanford

Radiochemical Analysis By

TestAmerica

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

Assigned Laboratory Code: TARL

Data Package Contains 73 *Pages*

Report No.: 46534

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.
J01093	RC-190	J1H226	J1D190621-1	MG8L31AG	9MG8L310	1110185
		J1H226	J1D190621-1	MG8L31AF	9MG8L310	1110186
		J1H226	J1D190621-1	MG8L31AE	9MG8L310	1110189
		J1H226	J1D190621-1	MG8L31AC	9MG8L310	1110192
		J1H226	J1D190621-1	MG8L31AA	9MG8L310	1112186
		J1H226	J1D190621-1	MG8L32AH	9MG8L320	1115334
		J1H226	J1D190621-1	MG8L32AD	9MG8L320	1117322
		J1H227	J1D190621-2	MG8L71AG	9MG8L710	1110185
		J1H227	J1D190621-2	MG8L71AF	9MG8L710	1110186
		J1H227	J1D190621-2	MG8L71AE	9MG8L710	1110189
		J1H227	J1D190621-2	MG8L71AC	9MG8L710	1110192
		J1H227	J1D190621-2	MG8L71AA	9MG8L710	1112186
		J1H227	J1D190621-2	MG8L72AH	9MG8L720	1115334
		J1H227	J1D190621-2	MG8L72AD	9MG8L720	1117322
		J1H228	J1D190621-3	MG8L91AG	9MG8L910	1110185
		J1H228	J1D190621-3	MG8L91AF	9MG8L910	1110186
		J1H228	J1D190621-3	MG8L91AE	9MG8L910	1110189
		J1H228	J1D190621-3	MG8L91AC	9MG8L910	1110192
		J1H228	J1D190621-3	MG8L91AA	9MG8L910	1112186
		J1H228	J1D190621-3	MG8L92AH	9MG8L920	1115334
		J1H228	J1D190621-3	MG8L92AD	9MG8L920	1117322
		J1H229	J1D190621-4	MG8MC1AG	9MG8MC10	1110185
		J1H229	J1D190621-4	MG8MC1AF	9MG8MC10	1110186
		J1H229	J1D190621-4	MG8MC1AE	9MG8MC10	1110189
		J1H229	J1D190621-4	MG8MC1AC	9MG8MC10	1110192
		J1H229	J1D190621-4	MG8MC1AA	9MG8MC10	1112186

Report No.: 46534

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.
J01093	RC-190	J1H229	J1D190621-4	MG8MC2AH	9MG8MC20	1115334
		J1H229	J1D190621-4	MG8MC2AD	9MG8MC20	1117322

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

TestAmerica Laboratories, Inc.

May 10, 2011

Attention: Joan Kessner

SAF Number	:	RC-190
Date SDG Closed	:	April 19, 2011
Number of Samples	:	Four (4)
Sample Type	:	Soil
SDG Number	:	J01093
Data Deliverable	:	15– Day / Summary

CASE NARRATIVE

I. Introduction

On April 19, 2011 four 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
J1H226	MG8L3	SOIL	4/19/11
J1H227	MG8L7	SOIL	4/19/11
J1H228	MG8L9	SOIL	4/19/11
J1H229	MG8MC	SOIL	4/19/11

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:

Gas Proportional Counting
Strontium-90 by method RL-GPC-003
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001

Liquid Scintillation Counting
Technetium-99 by method RL-LSC-013
Tritium by method RL-LSC-005
Carbon-14 by method RL-LSC-008
Nickel-63 by method RL-LCS-017
Chemical Analysis
Hexavalent Chromium by EPA method 7196A

IV. Quality Control

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

QC and sample results are reported in the same units.

V. Comments

Gas Proportional Counting
Strontium-90 by method RL-GPC-003:
The LCS, batch blank, samples and sample duplicate (J1H228) results are within contractual requirements.

Gamma Spectroscopy
Gamma Spec by method RL-GAM-001:
The CRDL was not met for some of the analytes. Except as noted, the LCS, batch blank, samples and sample duplicate (J1H227) results are within contractual requirements.

Liquid Scintillation Counting
Technetium-99 by method RL-LSC-013:
The LCS, batch blank, samples, sample duplicate (J1H228), and sample matrix spike (J1H228) results are within contractual requirements.

Tritium by method RL-LSC-005:
The LCS, batch blank, samples and sample duplicate (J1H226) results are within contractual requirements.

Carbon-14 by method RL-LSC-008:
In the original batch the instrument blank had inconsistent counts; the batch was recounted for acceptable results. Except as noted; the LCS, batch blank, samples and sample duplicate (B1H226) results are within contractual requirements.

Nickel-63 by method RL-LCS-017:
The sample and sample duplicate (J1H227) agreement is outside the acceptance limits. The batch was reanalyzed for acceptable results. Except as noted; the LCS, batch blank, sample and sample duplicate (J1H227) results are within contractual requirements.

Washington Closure Hanford
May 10, 2011

Chemical Analysis

Hexavalent Chromium by EPA method 7196A

The LCS, batch blank, samples, sample duplicate (J1H226), and sample matrix spike (J1H226) 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: 10-May-11

TestAmerica TARL

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

Report No. : 46534

SDG No: J01093

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1110185 GAMMA_GS									
J1H226									
	MG8L31AG	AMERICIUM 241	-3.21E-02 +- 7.2E-02	U	pCi/g		1.19E-01		
		CO-60	1.71E-02 +- 1.6E-02	U	pCi/g		3.05E-02	5.00E-02	
		CS-137	1.04E-02 +- 1.7E-02	U	pCi/g		2.97E-02	1.00E-01	
		EU-152	-3.76E-02 +- 7.4E-02	U	pCi/g		7.58E-02	1.00E-01	
		EU-154	-1.36E-02 +- 5.3E-02	U	pCi/g		9.08E-02	1.00E-01	
		EU-155	7.08E-02 +- 5.5E-02	U	pCi/g		9.50E-02	1.00E-01	
		RA-226	4.07E-01 +- 7.9E-02		pCi/g		4.94E-02		
J1H227									
	MG8L71AG	AMERICIUM 241	7.63E-03 +- 7.4E-02	U	pCi/g		1.25E-01		
		CO-60	-1.12E-02 +- 1.4E-02	U	pCi/g		2.20E-02	5.00E-02	
		CS-137	1.00E-02 +- 1.4E-02	U	pCi/g		2.53E-02	1.00E-01	
		EU-152	-3.23E-03 +- 2.9E-02	U	pCi/g		4.96E-02	1.00E-01	
		EU-154	-5.26E-03 +- 4.3E-02	U	pCi/g		7.46E-02	1.00E-01	
		EU-155	3.82E-03 +- 3.2E-02	U	pCi/g		5.55E-02	1.00E-01	
		RA-226	3.15E-01 +- 6.3E-02		pCi/g		3.66E-02		
J1H227 DUP									
	MG8L71AJ	AMERICIUM 241	-4.11E-02 +- 7.0E-02	U	pCi/g		1.16E-01		-291.3
		CO-60	1.92E-03 +- 1.5E-02	U	pCi/g		2.63E-02	5.00E-02	-283.0
		CS-137	1.39E-02 +- 1.7E-02	U	pCi/g		3.08E-02	1.00E-01	32.3
		EU-152	-3.68E-02 +- 6.9E-02	U	pCi/g		7.46E-02	1.00E-01	-167.7
		EU-154	-5.46E-02 +- 4.5E-02	U	pCi/g		6.98E-02	1.00E-01	-164.9
		EU-155	-2.68E-02 +- 5.2E-02	U	pCi/g		8.64E-02	1.00E-01	-266.5
		RA-226	2.93E-01 +- 6.4E-02		pCi/g		5.26E-02		7.5
J1H228									
	MG8L91AG	AMERICIUM 241	2.16E-02 +- 6.2E-02	U	pCi/g		1.07E-01		
		CO-60	-6.68E-03 +- 2.0E-02	U	pCi/g		3.54E-02	5.00E-02	
		CS-137	6.04E-02 +- 2.7E-02	U	pCi/g		4.55E-02	1.00E-01	
		EU-152	2.35E-03 +- 5.2E-02	U	pCi/g		9.01E-02	1.00E-01	
		EU-154	6.63E-02 +- 6.5E-02	U	pCi/g		1.25E-01	1.00E-01	
		EU-155	2.88E-02 +- 4.7E-02	U	pCi/g		8.37E-02	1.00E-01	
		RA-226	3.92E-01 +- 9.5E-02		pCi/g		5.76E-02		
J1H229									
	MG8MC1AG	AMERICIUM 241	-3.84E-02 +- 7.3E-02	U	pCi/g		1.21E-01		
		CO-60	1.35E-02 +- 1.7E-02	U	pCi/g		3.11E-02	5.00E-02	
		CS-137	1.81E-02 +- 1.7E-02	U	pCi/g		3.14E-02	1.00E-01	
		EU-152	-2.48E-02 +- 6.7E-02	U	pCi/g		7.83E-02	1.00E-01	
		EU-154	-8.58E-03 +- 5.2E-02	U	pCi/g		9.03E-02	1.00E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.14
A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

TestAmerica TARL

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

Date: 10-May-11

Report No. : 46534

SDG No: J01093

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1110185 GAMMA_GS									
J1H229									
	MG8MC1AG	EU-155	2.88E-02 +- 5.4E-02	U	pCi/g		9.37E-02	1.00E-01	
		RA-226	4.05E-01 +- 7.5E-02		pCi/g		5.43E-02		
1110192 SRTOT_SEP_PRECIP_GPC									
J1H226									
	MG8L31AC	STRONTIUM	1.30E-01 +- 9.0E-02	U	pCi/g	63%	1.64E-01		
J1H227									
	MG8L71AC	STRONTIUM	6.32E-02 +- 1.2E-01	U	pCi/g	38%	2.66E-01		
J1H228									
	MG8L91AC	STRONTIUM	6.59E-03 +- 7.0E-02	U	pCi/g	63%	1.65E-01		
J1H228 DUP									
	MG8L91AL	STRONTIUM	1.05E-02 +- 7.5E-02	U	pCi/g	61%	1.76E-01		46.2
J1H229									
	MG8MC1AC	STRONTIUM	6.66E-02 +- 8.3E-02	U	pCi/g	61%	1.74E-01		
1110186 906.0_H3_LSC									
J1H226									
	MG8L31AF	H-3	-3.72E-03 +- 2.1E-02	U	pCi/g	100%	4.57E-02	4.00E+02	
J1H226 DUP									
	MG8L31AJ	H-3	-7.75E-03 +- 1.9E-02	U	pCi/g	100%	4.23E-02	4.00E+02	-70.3
J1H227									
	MG8L71AF	H-3	-1.13E-02 +- 2.2E-02	U	pCi/g	100%	4.99E-02	4.00E+02	
J1H228									
	MG8L91AF	H-3	-3.30E-03 +- 1.7E-02	U	pCi/g	100%	3.60E-02	4.00E+02	
J1H229									
	MG8MC1AF	H-3	2.80E-02 +- 2.2E-02	U	pCi/g	100%	4.44E-02	4.00E+02	
1110189 TC99_ETVDSK_LSC									
J1H226									
	MG8L31AE	TC-99	-1.07E-01 +- 3.7E-01	U	pCi/g	100%	6.27E-01	1.50E+01	
J1H227									
	MG8L71AE	TC-99	-2.29E-02 +- 3.8E-01	U	pCi/g	100%	6.30E-01	1.50E+01	
J1H228									
	MG8L91AE	TC-99	1.51E-01 +- 3.8E-01	U	pCi/g	100%	6.28E-01	1.50E+01	
J1H228 DUP									
	MG8L91AK	TC-99	-1.43E-01 +- 3.7E-01	U	pCi/g	100%	6.32E-01	1.50E+01	7359.9
J1H229									
	MG8MC1AE	TC-99	2.54E-02 +- 3.7E-01	U	pCi/g	100%	6.19E-01	1.50E+01	
1112186 7196_CR6									
J1H226									
	MG8L31AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	

TestAmerica

rptSTLRchSaSummary2 V5.2.14 A2002

RPD - Relative Percent Difference.

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

Sample Results Summary

Date: 10-May-11

TestAmerica TARL

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

Report No. : 46534

SDG No: J01093

Batch	Client Id Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RPD
1112186 7196_CR6									
J1H226									
	MG8L31AN	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	3.50E-01	0.0
J1H227									
	MG8L71AA	HEXCHROME	5.75E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1H228									
	MG8L91AA	HEXCHROME	2.64E-01 +- 0.0E+00		mg/kg	N/A	1.55E-01	1.55E-01	
J1H229									
	MG8MC1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A	1.55E-01	1.55E-01	
1115334 C14_CHEM_LSC									
J1H226									
	MG8L32AH	C-14	3.66E-03 +- 2.1E-01	U	pCi/g	100%	4.54E-01	5.00E+01	
J1H226 DUP									
	MG8L32AK	C-14	-3.12E-02 +- 2.1E-01	U	pCi/g	100%	4.55E-01	5.00E+01	-253.1
J1H227									
	MG8L72AH	C-14	-7.52E-02 +- 2.1E-01	U	pCi/g	100%	4.54E-01	5.00E+01	
J1H228									
	MG8L92AH	C-14	-7.60E-02 +- 2.1E-01	U	pCi/g	100%	4.54E-01	5.00E+01	
J1H229									
	MG8MC2AH	C-14	8.05E-02 +- 2.2E-01	U	pCi/g	100%	4.55E-01	5.00E+01	
1117322 NI63_LSC									
J1H226									
	MG8L32AD	NI-63	-8.23E+00 +- 6.8E+00	U	pCi/g	86%	1.49E+01	3.00E+01	
J1H227									
	MG8L72AD	NI-63	-7.19E-01 +- 7.2E+00	U	pCi/g	86%	1.49E+01	3.00E+01	
J1H227 DUP									
	MG8L72AK	NI-63	-5.92E+00 +- 6.9E+00	U	pCi/g	90%	1.49E+01	3.00E+01	-156.7
J1H228									
	MG8L92AD	NI-63	-2.97E+00 +- 6.8E+00	U	pCi/g	87%	1.42E+01	3.00E+01	
J1H229									
	MG8MC2AD	NI-63	3.44E-02 +- 6.4E+00	U	pCi/g	91%	1.32E+01	3.00E+01	

No. of Results: 65

TestAmerica

rptSTLRchSaSummary2 V5.2.14
A2002

RPD - Relative Percent Difference.

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

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 10-May-11

Report No. : 46534

SDG No.: J01093

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
GAMMA_GS								
1110185 BLANK QC,								
MG8721AA	AMERICIUM 241	9.87E-02 +- 1.1E-01	U	pCi/g				2.06E-01
	CO-60	5.53E-03 +- 1.3E-02	U	pCi/g				2.45E-02
	CS-137	-4.96E-03 +- 1.2E-02	U	pCi/g				2.11E-02
	EU-152	2.22E-02 +- 3.7E-02	U	pCi/g				6.61E-02
	EU-154	2.25E-02 +- 4.2E-02	U	pCi/g				7.85E-02
	EU-155	2.70E-02 +- 3.9E-02	U	pCi/g				6.79E-02
	RA-226	1.14E-01 +- 5.8E-02		pCi/g				4.10E-02
1110185 LCS,								
MG8721AC	CS-137	1.10E+00 +- 1.5E-01		pCi/g		102%	0.0	4.00E-02
	RA-226	1.10E+00 +- 1.8E-01		pCi/g		97%	0.0	6.61E-02
	RA-228	9.32E-01 +- 2.1E-01		pCi/g		100%	0.0	1.32E-01
	U-238	1.04E+00 +- 1.7E-01		pCi/g		86%	-0.1	7.36E-02
SRTOT_SEP_PRECIP_GPC								
1110192 BLANK QC,								
MG88Q1AA	STRONTIUM	-3.10E-02 +- 5.2E-02	U	pCi/g	88%			1.33E-01
1110192 LCS,								
MG88Q1AC	STRONTIUM	8.67E-01 +- 2.6E-01		pCi/g	88%	77%	-0.2	1.34E-01
906.0_H3_LSC								
1110186 BLANK QC,								
MG88C1AA	H-3	1.38E-03 +- 1.8E-02	U	pCi/g	100%			3.78E-02
1110186 LCS,								
MG88C1AC	H-3	2.58E-01 +- 2.3E-02		pCi/g	100%	103%	0.0	3.10E-02
TC99_ETVDSK_LSC								
1110189 BLANK QC,								
MG88M1AA	TC-99	1.38E-01 +- 3.9E-01	U	pCi/g	100%			6.30E-01
1110189 LCS,								
MG88M1AC	TC-99	5.44E+01 +- 3.9E+00		pCi/g	100%	78%	-0.2	6.33E-01
1110189 MATRIX SPIKE, J1H228								
MG8L91AJ	TC-99	1.95E+02 +- 1.3E+01		pCi/g	100%	86%	-0.1	6.31E-01
7196_CR6								
1112186 MATRIX SPIKE, J1H226								
MG8L31AL	HEXCHROME	8.89E+00 +- 0.0E+00		mg/kg	N/A	87%	-0.1	1.55E-01
1112186 LCS,								
MHD6V1AC	HEXCHROME	1.91E+01 +- 0.0E+00		mg/kg	N/A	96%	0.0	1.55E-01
1112186 BLANK QC,								
MHD6V1AA	HEXCHROME	1.55E-01 +- 0.0E+00	U	mg/kg	N/A			1.55E-01
C14_CHEM_LSC								
1115334 BLANK QC,								
MG88J2AA	C-14	3.40E-03 +- 5.5E-03	U	pCi/g	100%			1.14E-02
1115334 LCS,								
MG88J2AC	C-14	7.88E+00 +- 5.5E-01		pCi/g	100%	105%	0.0	4.57E-01

TestAmerica rptSTLRchQcSummary V5.2.14 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.

QC Results Summary

TestAmerica TARL

Ordered by Method, Batch No, QC Type,.

Date: 10-May-11

Report No. : 46534

SDG No.: J01093

Batch Work Order	Parameter	Result +- Uncertainty (2s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
NI63_LSC								
1117322 BLANK QC, MHKV71AA	NI-63	-2.46E-01 +- 7.2E+00	U	pCi/g	81%			1.48E+01
1117322 LCS, MHKV71AC	NI-63	4.98E+02 +- 4.9E+01		pCi/g	87%	85%	-0.1	1.42E+01

No. of Results: 25

TestAmerica
rptSTLRchQcSummary V5.2.14
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: 10-May-11

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 10:50:00 AM
Lot-Sample No.:	J1D190621-1	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H226	**COC No. :**	RC-190-046	**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: 1110185	GAMMA_GS			**Work Order:** MG8L31AG			**Report DB ID:** 9MG8L310					
AMERICIUM 241	***-3.21E-02***	U	7.2E-02	7.2E-02	1.19E-01	pCi/g		*-0.27*	4/22/11 01:44 p		342.4	GER10$1
								-0.89			g	
CO-60	***1.71E-02***	U	1.6E-02	1.6E-02	3.05E-02	pCi/g		*0.56*	4/22/11 01:44 p		342.4	GER10$1
							5.00E-02	*(2.1)*			g	
CS-137	***1.04E-02***	U	1.7E-02	1.7E-02	2.97E-02	pCi/g		*0.35*	4/22/11 01:44 p		342.4	GER10$1
							1.00E-01	*(1.3)*			g	
EU-152	***-3.76E-02***	U	7.4E-02	7.4E-02	7.58E-02	pCi/g		*-0.5*	4/22/11 01:44 p		342.4	GER10$1
							1.00E-01	*-(1.)*			g	
EU-154	***-1.36E-02***	U	5.3E-02	5.3E-02	9.08E-02	pCi/g		*-0.15*	4/22/11 01:44 p		342.4	GER10$1
							1.00E-01	*-0.51*			g	
EU-155	***7.08E-02***	U	5.5E-02	5.5E-02	9.50E-02	pCi/g		*0.75*	4/22/11 01:44 p		342.4	GER10$1
							1.00E-01	*(2.6)*			g	
RA-226	***4.07E-01***		7.9E-02	7.9E-02	4.94E-02	pCi/g		*(8.2)*	4/22/11 01:44 p		342.4	GER10$1
								(10.3)			g	
Batch: 1110186	906.0_H3_LSC			**Work Order:** MG8L31AF			**Report DB ID:** 9MG8L310					
H-3	***-3.72E-03***	U	1.9E-02	2.1E-02	4.57E-02	pCi/g	100%	*-0.08*	4/23/11 09:55 a		85.2	LSC4
						2.18E-02	4.00E+02	*-0.35*			g	
Batch: 1110189	TC99_ETVDSK_LSC			**Work Order:** MG8L31AE			**Report DB ID:** 9MG8L310					
TC-99	***-1.07E-01***	U	2.5E-01	3.7E-01	6.27E-01	pCi/g	100%	*-0.17*	4/26/11 11:51 p		1.99	LSC6
						3.01E-01	1.50E+01	*-0.58*			g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			**Work Order:** MG8L31AC			**Report DB ID:** 9MG8L310					

TestAmerica
rptSTLRchSample
V5.2.14 A2002

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

SAMPLE RESULTS

Date: 10-May-11

Lab Name:	**TestAmerica**	**SDG:**	J01093	**Collection Date:**	4/19/2011 10:50:00 AM
Lot-Sample No.:	**J1D190621-1**	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	**J1H226**	**COC No. :**	RC-190-046	**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
STRONTIUM	***1.30E-01***	U	8.4E-02	9.0E-02	1.64E-01	pCi/g	63%	*0.8*	4/25/11 06:54 p		6.0	GPC27A
						7.60E-02		*(2.9)*			g	
Batch: 1112186	7196_CR6			**Work Order:**	MG8L31AA		**Report DB ID:**	9MG8L310				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	5/6/11 11:30 a		2.5	
							1.55E-01	*N/A*			g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:**	MG8L32AH		**Report DB ID:**	9MG8L320				
C-14	***3.66E-03***	U	1.8E-01	2.1E-01	4.54E-01	pCi/g	100%	*0.01*	4/27/11 06:57 a		5.034	LSC3
						2.14E-01	5.00E+01	*0.03*			g	
Batch: 1117322	NI63_LSC			**Work Order:**	MG8L32AD		**Report DB ID:**	9MG8L320				
NI-63	***-8.23E+00***	U	5.5E+00	6.8E+00	1.49E+01	pCi/g	86%	*-0.55*	4/30/11 11:11 a		0.25	LSC3
						6.99E+00	3.00E+01	*-(2.4)*			g	

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

TestAmerica
rptSTLRchSample
V5.2.14 A2002

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

SAMPLE RESULTS

Date: 10-May-11

Lab Name:	TestAmerica	SDG:	J01093	Collection Date:	4/19/2011 10:55:00 AM
Lot-Sample No.:	J1D190621-2	Report No. :	46534	Received Date:	4/19/2011 4:05:00 PM
Client Sample ID:	J1H227	COC No. :	RC-190-046	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: 1110185	GAMMA_GS			Work Order:	MG8L71AG		Report DB ID:	9MG8L710				
AMERICIUM 241	***7.63E-03***	U	7.4E-02	7.4E-02	1.25E-01	pCi/g		*0.06*	4/22/11 05:27 p		361.0	GER11$1
								0.21			g	
CO-60	***-1.12E-02***	U	1.4E-02	1.4E-02	2.20E-02	pCi/g		*-0.51*	4/22/11 05:27 p		361.0	GER11$1
							5.00E-02	*-(1.6)*			g	
CS-137	***1.00E-02***	U	1.4E-02	1.4E-02	2.53E-02	pCi/g		*0.4*	4/22/11 05:27 p		361.0	GER11$1
							1.00E-01	*(1.4)*			g	
EU-152	***-3.23E-03***	U	2.9E-02	2.9E-02	4.96E-02	pCi/g		*-0.07*	4/22/11 05:27 p		361.0	GER11$1
							1.00E-01	*-0.22*			g	
EU-154	***-5.26E-03***	U	4.3E-02	4.3E-02	7.46E-02	pCi/g		*-0.07*	4/22/11 05:27 p		361.0	GER11$1
							1.00E-01	*-0.25*			g	
EU-155	***3.82E-03***	U	3.2E-02	3.2E-02	5.55E-02	pCi/g		*0.07*	4/22/11 05:27 p		361.0	GER11$1
							1.00E-01	*0.24*			g	
RA-226	***3.15E-01***		6.3E-02	6.3E-02	3.66E-02	pCi/g		*(8.6)*	4/22/11 05:27 p		361.0	GER11$1
								(10.)			g	
Batch: 1110186	906.0_H3_LSC			Work Order:	MG8L71AF		Report DB ID:	9MG8L710				
H-3	***-1.13E-02***	U	2.0E-02	2.2E-02	4.99E-02	pCi/g	100%	*-0.23*	4/23/11 12:41 p		85.2	LSC4
						2.38E-02	4.00E+02	*-(1.)*			g	
Batch: 1110189	TC99_ETVDSK_LSC			Work Order:	MG8L71AE		Report DB ID:	9MG8L710				
TC-99	***-2.29E-02***	U	2.6E-01	3.8E-01	6.30E-01	pCi/g	100%	*-0.04*	4/27/11 12:53 a		1.99	LSC6
						3.02E-01	1.50E+01	*-0.12*			g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			Work Order:	MG8L71AC		Report DB ID:	9MG8L710				

TestAmerica
rptSTLRchSample
V5.2.14 A2002

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

SAMPLE RESULTS

Date: 10-May-11

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 10:55:00 AM
Lot-Sample No.:	J1D190621-2	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H227	**COC No. :**	RC-190-046	**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
STRONTIUM	***6.32E-02***	U	1.2E-01	1.2E-01	2.66E-01	pCi/g	38%	*0.24*	4/25/11 06:54 p		6.01	GPC27B
						1.24E-01		*(1.1)*			g	
Batch: 1112186	7196_CR6			**Work Order:**	MG8L71AA		**Report DB ID:**	9MG8L710				
HEXCHROME	***5.75E-01***			0.0E+00	1.55E-01	mg/kg	N/A	*(3.7)*	5/6/11 11:30 a		2.5	
							1.55E-01	*N/A*			g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:**	MG8L72AH		**Report DB ID:**	9MG8L720				
C-14	***-7.52E-02***	U	1.8E-01	2.1E-01	4.54E-01	pCi/g	100%	*-0.17*	4/27/11 07:43 a		5.027	LSC3
						2.14E-01	5.00E+01	*-0.72*			g	
Batch: 1117322	NI63_LSC			**Work Order:**	MG8L72AD		**Report DB ID:**	9MG8L720				
NI-63	***-7.19E-01***	U	5.9E+00	7.2E+00	1.49E+01	pCi/g	86%	*-0.05*	4/30/11 11:34 a		0.25	LSC3
						6.95E+00	3.00E+01	*-0.2*			g	

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

TestAmerica
rptSTLRchSample
V5.2.14 A2002

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

SAMPLE RESULTS

Date: 10-May-11

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 11:05:00 AM
Lot-Sample No.:	J1D190621-3	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H228	**COC No. :**	RC-190-046	**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: 1110185	GAMMA_GS			**Work Order:** MG8L91AG			**Report DB ID:** 9MG8L910					
AMERICIUM 241	***2.16E-02***	U	6.2E-02	6.2E-02	1.07E-01	pCi/g		*0.2*	4/22/11 05:28 p		356.5	GER7$1
								0.69			g	
CO-60	***-6.68E-03***	U	2.0E-02	2.0E-02	3.54E-02	pCi/g		*-0.19*	4/22/11 05:28 p		356.5	GER7$1
							5.00E-02	*-0.66*			g	
CS-137	***6.04E-02***	U	2.7E-02	2.7E-02	4.55E-02	pCi/g		*(1.3)*	4/22/11 05:28 p		356.5	GER7$1
							1.00E-01	*(4.5)*			g	
EU-152	***2.35E-03***	U	5.2E-02	5.2E-02	9.01E-02	pCi/g		*0.03*	4/22/11 05:28 p		356.5	GER7$1
							1.00E-01	*0.09*			g	
EU-154	***6.63E-02***	U	6.5E-02	6.5E-02	1.25E-01	pCi/g		*0.53*	4/22/11 05:28 p		356.5	GER7$1
							1.00E-01	*(2.)*			g	
EU-155	***2.88E-02***	U	4.7E-02	4.7E-02	8.37E-02	pCi/g		*0.34*	4/22/11 05:28 p		356.5	GER7$1
							1.00E-01	*(1.2)*			g	
RA-226	***3.92E-01***		9.5E-02	9.5E-02	5.76E-02	pCi/g		*(6.8)*	4/22/11 05:28 p		356.5	GER7$1
								(8.3)			g	
Batch: 1110186	906.0_H3_LSC			**Work Order:** MG8L91AF			**Report DB ID:** 9MG8L910					
H-3	***-3.30E-03***	U	1.5E-02	1.7E-02	3.60E-02	pCi/g	100%	*-0.09*	4/23/11 02:04 p		107.9	LSC4
						1.72E-02	4.00E+02	*-0.4*			g	
Batch: 1110189	TC99_ETVDSK_LSC			**Work Order:** MG8L91AE			**Report DB ID:** 9MG8L910					
TC-99	***1.51E-01***	U	2.6E-01	3.8E-01	6.28E-01	pCi/g	100%	*0.24*	4/27/11 01:56 a		2.01	LSC6
						3.01E-01	1.50E+01	*0.79*			g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			**Work Order:** MG8L91AC			**Report DB ID:** 9MG8L910					

TestAmerica
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V5.2.14 A2002

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FORM I

SAMPLE RESULTS

Date: 10-May-11

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 11:05:00 AM
Lot-Sample No.:	J1D190621-3	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H228	**COC No. :**	RC-190-046	**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
STRONTIUM	***6.59E-03***	U	7.0E-02	7.0E-02	1.65E-01	pCi/g	63%	*0.04*	4/25/11 06:54 p		6.0	GPC27D
						7.68E-02		*0.19*			g	
Batch: 1112186	7196_CR6			**Work Order:**	MG8L91AA		**Report DB ID:**	9MG8L910				
HEXCHROME	***2.64E-01***			0.0E+00	1.55E-01	mg/kg	N/A	*(1.7)*	5/6/11 11:30 a		2.5	
							1.55E-01	*N/A*			g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:**	MG8L92AH		**Report DB ID:**	9MG8L920				
C-14	***-7.60E-02***	U	1.8E-01	2.1E-01	4.54E-01	pCi/g	100%	*-0.17*	4/27/11 08:06 a		5.024	LSC3
						2.14E-01	5.00E+01	*-0.73*			g	
Batch: 1117322	NI63_LSC			**Work Order:**	MG8L92AD		**Report DB ID:**	9MG8L920				
NI-63	***-2.97E+00***	U	5.5E+00	6.8E+00	1.42E+01	pCi/g	87%	*-0.21*	4/30/11 12:20 p		0.26	LSC3
						6.66E+00	3.00E+01	*-0.87*			g	

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

TestAmerica
rptSTLRchSample
V5.2.14 A2002

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FORM I

SAMPLE RESULTS

Date: 10-May-11

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 11:10:00 AM
Lot-Sample No.:	J1D190621-4	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H229	**COC No. :**	RC-190-046	**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: 1110185	GAMMA_GS			**Work Order:**	MG8MC1AG		**Report DB ID:**	9MG8MC10				
AMERICIUM 241	***-3.84E-02***	U	7.3E-02	7.3E-02	1.21E-01	pCi/g		*-0.32*	4/22/11 05:29 p		338.6	GER10$1
								-(1.)			g	
CO-60	***1.35E-02***	U	1.7E-02	1.7E-02	3.11E-02	pCi/g		*0.43*	4/22/11 05:29 p		338.6	GER10$1
							5.00E-02	*(1.6)*			g	
CS-137	***1.81E-02***	U	1.7E-02	1.7E-02	3.14E-02	pCi/g		*0.58*	4/22/11 05:29 p		338.6	GER10$1
							1.00E-01	*(2.1)*			g	
EU-152	***-2.48E-02***	U	6.7E-02	6.7E-02	7.83E-02	pCi/g		*-0.32*	4/22/11 05:29 p		338.6	GER10$1
							1.00E-01	*-0.74*			g	
EU-154	***-8.58E-03***	U	5.2E-02	5.2E-02	9.03E-02	pCi/g		*-0.1*	4/22/11 05:29 p		338.6	GER10$1
							1.00E-01	*-0.33*			g	
EU-155	***2.88E-02***	U	5.4E-02	5.4E-02	9.37E-02	pCi/g		*0.31*	4/22/11 05:29 p		338.6	GER10$1
							1.00E-01	*(1.1)*			g	
RA-226	***4.05E-01***		7.5E-02	7.5E-02	5.43E-02	pCi/g		*(7.5)*	4/22/11 05:29 p		338.6	GER10$1
								(10.8)			g	
Batch: 1110186	906.0_H3_LSC			**Work Order:**	MG8MC1AF		**Report DB ID:**	9MG8MC10				
H-3	***2.80E-02***	U	1.9E-02	2.2E-02	4.44E-02	pCi/g	100%	*0.63*	4/23/11 03:27 p		85.7	LSC4
						2.12E-02	4.00E+02	*(2.6)*			g	
Batch: 1110189	TC99_ETVDSK_LSC			**Work Order:**	MG8MC1AE		**Report DB ID:**	9MG8MC10				
TC-99	***2.54E-02***	U	2.5E-01	3.7E-01	6.19E-01	pCi/g	100%	*0.04*	4/27/11 05:04 a		2.02	LSC6
						2.97E-01	1.50E+01	*0.14*			g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MG8MC1AC		**Report DB ID:**	9MG8MC10				

TestAmerica
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V5.2.14 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: 10-May-11

Lab Name:	TestAmerica	SDG:	J01093	Collection Date:	4/19/2011 11:10:00 AM
Lot-Sample No.:	J1D190621-4	Report No. :	46534	Received Date:	4/19/2011 4:05:00 PM
Client Sample ID:	J1H229	COC No. :	RC-190-046	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
STRONTIUM	***6.66E-02***	U	8.1E-02	8.3E-02	1.74E-01	pCi/g	61%	*0.38*	4/25/11 06:54 p		6.02	GPC28D
						8.08E-02		*(1.6)*			g	
Batch: 1112186	7196_CR6			**Work Order:**	MG8MC1AA		**Report DB ID:**	9MG8MC10				
HEXCHROME	***1.55E-01***	U		0.0E+00	1.55E-01	mg/kg	N/A	*1.*	5/6/11 11:30 a		2.5	
							1.55E-01	*N/A*			g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:**	MG8MC2AH		**Report DB ID:**	9MG8MC20				
C-14	***8.05E-02***	U	1.9E-01	2.2E-01	4.55E-01	pCi/g	100%	*0.18*	4/27/11 08:29 a		5.016	LSC3
						2.14E-01	5.00E+01	*0.74*			g	
Batch: 1117322	NI63_LSC			**Work Order:**	MG8MC2AD		**Report DB ID:**	9MG8MC20				
NI-63	***3.44E-02***	U	5.3E+00	6.4E+00	1.32E+01	pCi/g	91%	*0.*	4/30/11 12:43 p		0.27	LSC3
						6.16E+00	3.00E+01	*0.01*			g	

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

TestAmerica
rptSTLRchSample
V5.2.14 A2002

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

Date: 10-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 10:50:00 AM
Lot-Sample No.:	J1D190621-1	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H226	**COC No. :**	RC-190-046	**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: 1112186	7196_CR6			**Work Order:** MG8L31AN		**Report DB ID:** MG8L31ER			**Orig Sa DB ID:** 9MG8L310			
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	5/6/11 11:30 a		2.5	
	1.55E-01	U	**RPD**	**0.0**		3.50E-01		N/A			g	

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

TestAmerica
rptSTLRchDupV5.2
.14 A2002

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

FORM II

Date: 10-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 10:50:00 AM
Lot-Sample No.:	J1D190621-1	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H226 DUP	**COC No. :**	RC-190-046	**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: 1110186	906.0_H3_LSC			**Work Order:** MG8L31AJ		**Report DB ID:** MG8L31JR			**Orig Sa DB ID:** 9MG8L310			
H-3	-7.75E-03	U	1.7E-02	1.9E-02	4.23E-02	pCi/g	100%	-0.18	4/23/11 11:18 a		92.0	LSC4
	-3.72E-03	U	**RPD**	**-70.3**		4.00E+02		-0.81			g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:** MG8L32AK		**Report DB ID:** MG8L32KR			**Orig Sa DB ID:** 9MG8L320			
C-14	-3.12E-02	U	1.8E-01	2.1E-01	4.55E-01	pCi/g	100%	-0.07	4/27/11 07:20 a		5.024	LSC3
	3.66E-03	U	**RPD**	**-253.1**		5.00E+01		-0.3			g	

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

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

FORM II

Date: 10-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 10:55:00 AM
Lot-Sample No.:	J1D190621-2	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H227 DUP	**COC No. :**	RC-190-046	**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: 1110185	GAMMA_GS			**Work Order:** MG8L71AJ		**Report DB ID:** MG8L71JR			**Orig Sa DB ID:** 9MG8L710			
AMERICIUM 241	-4.11E-02	U	7.0E-02	7.0E-02	1.16E-01	pCi/g		-0.35	4/23/11 03:31 a		361.0	GER10$1
	7.63E-03	U	**RPD**	**-291.3**				-(1.2)			g	
CO-60	1.92E-03	U	1.5E-02	1.5E-02	2.63E-02	pCi/g		0.07	4/23/11 03:31 a		361.0	GER10$1
	-1.12E-02	U	**RPD**	**-283.0**		5.00E-02		0.26			g	
CS-137	1.39E-02	U	1.7E-02	1.7E-02	3.08E-02	pCi/g		0.45	4/23/11 03:31 a		361.0	GER10$1
	1.00E-02	U	**RPD**	**32.3**		1.00E-01		(1.6)			g	
EU-152	-3.68E-02	U	6.9E-02	6.9E-02	7.46E-02	pCi/g		-0.49	4/23/11 03:31 a		361.0	GER10$1
	-3.23E-03	U	**RPD**	**-167.7**		1.00E-01		-(1.1)			g	
EU-154	-5.46E-02	U	4.5E-02	4.5E-02	6.98E-02	pCi/g		-0.78	4/23/11 03:31 a		361.0	GER10$1
	-5.26E-03	U	**RPD**	**-164.9**		1.00E-01		-(2.4)			g	
EU-155	-2.68E-02	U	5.2E-02	5.2E-02	8.64E-02	pCi/g		-0.31	4/23/11 03:31 a		361.0	GER10$1
	3.82E-03	U	**RPD**	**-266.5**		1.00E-01		-(1.)			g	
RA-226	2.93E-01		6.4E-02	6.4E-02	5.26E-02	pCi/g		(5.6)	4/23/11 03:31 a		361.0	GER10$1
	3.15E-01		**RPD**	**7.5**				(9.1)			g	
Batch: 1117322	NI63_LSC			**Work Order:** MG8L72AK		**Report DB ID:** MG8L72KR			**Orig Sa DB ID:** 9MG8L720			
NI-63	-5.92E+00	U	5.6E+00	6.9E+00	1.49E+01	pCi/g	90%	-0.4	4/30/11 11:57 a		0.24	LSC3
	-7.19E-01	U	**RPD**	**-156.7**		3.00E+01		-(1.7)			g	

No. of Results: 8 **Comments:**

TestAmerica
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.14 A2002

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

FORM II

Date: 10-May-11

DUPLICATE RESULTS

Lab Name:	TestAmerica	**SDG:**	J01093	**Collection Date:**	4/19/2011 11:05:00 AM
Lot-Sample No.:	J1D190621-3	**Report No. :**	46534	**Received Date:**	4/19/2011 4:05:00 PM
Client Sample ID:	J1H228 DUP	**COC No. :**	RC-190-046	**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: 1110189	TC99_ETVDSK_LSC			**Work Order:** MG8L91AK		**Report DB ID:** MG8L91KR			**Orig Sa DB ID:** 9MG8L910			
TC-99	-1.43E-01	U	2.5E-01	3.7E-01	6.32E-01	pCi/g	100%	-0.23	4/27/11 04:01 a		1.99	LSC6
	1.51E-01	U	**RPD**	**7359.9**		1.50E+01		-0.78			g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			**Work Order:** MG8L91AL		**Report DB ID:** MG8L91LR			**Orig Sa DB ID:** 9MG8L910			
STRONTIUM	1.05E-02	U	7.5E-02	7.5E-02	1.76E-01	pCi/g	61%	0.06	4/25/11 06:54 p		6.02	GPC28B
	6.59E-03	U	**RPD**	**46.2**				0.28			g	

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

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

FORM II

BLANK RESULTS

Date: 10-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01093

Report No. : 46534

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: 1112186	7196_CR6			**Work Order:**	MHD6V1AA		**Report DB ID:**	MHD6V1AB				
HEXCHROME	1.55E-01	U		0.0E+00	1.55E-01	mg/kg	N/A	1.	5/6/11 11:30 a		2.5	
						1.55E-01		N/A			g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:**	MG88J2AA		**Report DB ID:**	MG88J2AB				
C-14	3.40E-03	U	4.8E-03	5.5E-03	1.14E-02	pCi/g	100%	0.3	4/27/11 08:52 a		200.0	LSC3
					5.38E-03	5.00E+01		(1.2)			g	
Batch: 1117322	NI63_LSC			**Work Order:**	MHKV71AA		**Report DB ID:**	MHKV71AB				
NI-63	-2.46E-01	U	5.9E+00	7.2E+00	1.48E+01	pCi/g	81%	-0.02	4/30/11 01:06 p		0.27	LSC3
					6.93E+00	3.00E+01		-0.07			g	
Batch: 1110189	TC99_ETVDSK_LSC			**Work Order:**	MG88M1AA		**Report DB ID:**	MG88M1AB				
TC-99	1.38E-01	U	2.6E-01	3.9E-01	6.30E-01	pCi/g	100%	0.22	4/27/11 06:07 a		2.0	LSC6
					3.02E-01	1.50E+01		0.72			g	
Batch: 1110186	906.0_H3_LSC			**Work Order:**	MG88C1AA		**Report DB ID:**	MG88C1AB				
H-3	1.38E-03	U	1.6E-02	1.8E-02	3.78E-02	pCi/g	100%	0.04	4/23/11 04:49 p		89.4	LSC4
					1.81E-02	4.00E+02		0.16			g	
Batch: 1110185	GAMMA_GS			**Work Order:**	MG8721AA		**Report DB ID:**	MG8721AB				
AMERICIUM 241	9.87E-02	U	1.1E-01	1.1E-01	2.06E-01	pCi/g		0.48	4/22/11 05:29 p		348.0	GER13$1
								(1.7)			g	
CO-60	5.53E-03	U	1.3E-02	1.3E-02	2.45E-02	pCi/g		0.23	4/22/11 05:29 p		348.0	GER13$1
						5.00E-02		0.85			g	
CS-137	-4.96E-03	U	1.2E-02	1.2E-02	2.11E-02	pCi/g		-0.23	4/22/11 05:29 p		348.0	GER13$1
						1.00E-01		-0.81			g	

TestAmerica
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V5.2.14 A2002

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

BLANK RESULTS

Date: 10-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01093

Report No. : 46534

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
EU-152	2.22E-02	U	3.7E-02	3.7E-02	6.61E-02	pCi/g		0.34	4/22/11 05:29 p		348.0	GER13$1
						1.00E-01		(1.2)			g	
EU-154	2.25E-02	U	4.2E-02	4.2E-02	7.85E-02	pCi/g		0.29	4/22/11 05:29 p		348.0	GER13$1
						1.00E-01		(1.1)			g	
EU-155	2.70E-02	U	3.9E-02	3.9E-02	6.79E-02	pCi/g		0.4	4/22/11 05:29 p		348.0	GER13$1
						1.00E-01		(1.4)			g	
RA-226	1.14E-01		5.8E-02	5.8E-02	4.10E-02	pCi/g		(2.8)	4/22/11 05:29 p		348.0	GER13$1
								(3.9)			g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			**Work Order:**	MG88Q1AA		**Report DB ID:**	MG88Q1AB				
STRONTIUM	-3.10E-02	U	5.2E-02	5.2E-02	1.33E-01	pCi/g	88%	-0.23	4/25/11 06:54 p		6.0	GPC31A
					6.18E-02			-(1.2)			g	

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

TestAmerica
rptSTLRchBlank
V5.2.14 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: 10-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01093

Report No. : 46534

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: 1112186	7196_CR6			**Work Order:**	MHD6V1AC		**Report DB ID:**	MHD6V1AS					
HEXCHROME	1.91E+01			0.0E+00	1.55E-01	mg/kg	N/A	2.00E+01		96%	5/6/11 11:30 a	2.5	
							Rec Limits:	80	120	0.0		g	
Batch: 1115334	C14_CHEM_LSC			**Work Order:**	MG88J2AC		**Report DB ID:**	MG88J2CS					
C-14	7.88E+00		4.4E-01	5.5E-01	4.57E-01	pCi/g	100%	7.51E+00	1.2E-01	105%	4/27/11 09:15 a	5.0	LSC3
							Rec Limits:	70	130	0.0		g	
Batch: 1117322	NI63_LSC			**Work Order:**	MHKV71AC		**Report DB ID:**	MHKV71CS					
NI-63	4.98E+02		1.9E+01	4.9E+01	1.42E+01	pCi/g	87%	5.84E+02	9.8E+00	85%	4/30/11 01:29 p	0.26	LSC3
							Rec Limits:	70	130	-0.1		g	
Batch: 1110189	TC99_ETVDSK_LSC			**Work Order:**	MG88M1AC		**Report DB ID:**	MG88M1CS					
TC-99	5.44E+01		1.0E+00	3.9E+00	6.33E-01	pCi/g	100%	6.95E+01	3.1E-01	78%	4/27/11 07:10 a	1.99	LSC6
							Rec Limits:	70	130	-0.2		g	
Batch: 1110186	906.0_H3_LSC			**Work Order:**	MG88C1AC		**Report DB ID:**	MG88C1CS					
H-3	2.58E-01		2.1E-02	2.3E-02	3.10E-02	pCi/g	100%	2.50E-01	7.5E-03	103%	4/23/11 06:12 p	108.8	LSC4
							Rec Limits:	70	130	0.0		g	
Batch: 1110185	GAMMA_GS			**Work Order:**	MG8721AC		**Report DB ID:**	MG8721CS					
CS-137	1.10E+00		1.5E-01	1.5E-01	4.00E-02	pCi/g		1.08E+00	1.1E-02	102%	4/23/11 03:32 a	350.1	GER7$1
							Rec Limits:	70	130	0.0		g	
RA-226	1.10E+00		1.8E-01	1.8E-01	6.61E-02	pCi/g		1.14E+00	1.2E-02	97%	4/23/11 03:32 a	350.1	GER7$1
							Rec Limits:	70	130	0.0		g	
RA-228	9.32E-01		2.1E-01	2.1E-01	1.32E-01	pCi/g		9.34E-01	9.7E-03	100%	4/23/11 03:32 a	350.1	GER7$1
							Rec Limits:	70	130	0.0		g	

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

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V5.2.14 A2002

FORM II

LCS RESULTS

Date: 10-May-11

Lab Name: TestAmerica

Matrix: SOIL

SDG: J01093

Report No. : 46534

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
U-238	1.04E+00		1.7E-01	1.7E-01	7.36E-02	pCi/g		1.20E+00	1.2E-02	86%	4/23/11 03:32 a	350.1	GER7$1
							Rec Limits:	70	130	-0.1		g	
Batch: 1110192	SRTOT_SEP_PRECIP_GPC			Work Order:	MG88Q1AC		Report DB ID:	MG88Q1CS					
STRONTIUM	8.67E-01		1.2E-01	2.6E-01	1.34E-01	pCi/g	88%	1.12E+00	3.0E-02	77%	4/25/11 06:54 p	6.0	GPC31D
							Rec Limits:	70	130	-0.2		g	

No. of Results: 10 **Comments:**

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

rptSTLRchLcs
V5.2.14 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 10-May-11

Lab Name: TestAmerica **SDG:** J01093

Lot-Sample No.: J1D190621-1, J1H226 **Report No. :** 46534 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 1112186	Work Order: MG8L31AL			Report DB ID: MG8L31CW			Orig Sa DB ID: 9MG8L310					
HEXCHROME	8.89E+00			0.0E+00	1.55E-01	mg/kg	N/A	87.43%	1.02E+01	5/6/11 11:30 a	2.5	7196_CR6
	1.55E-01										g	

Number of Results: 1

Comments:

TestAmerica RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.

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

V5.2.14 A2002

FORM II

MATRIX SPIKE RESULTS

Date: 10-May-11

Lab Name: TestAmerica **SDG:** J01093

Lot-Sample No.: J1D190621-3, J1H228 **Report No. :** 46534 **Matrix:** SOIL

Parameter	SpikeResult, Orig Rst	Qual	Count Error (2 s)	Total Uncert(2 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 1110189	Work Order: MG8L91AJ			Report DB ID: MG8L91JW			Orig Sa DB ID: 9MG8L910					
TC-99	1.95E+02		1.9E+00	1.3E+01	6.31E-01	pCi/g	100%	86.18%	2.27E+02	4/27/11 02:59 a	1.99	TC99_ETVDSK_LSC
	1.51E-01								9.2E-01		g	LSC6

Number of Results: 1

Comments:

TestAmerica
rptSTLRchMs
V5.2.14 A2002

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/26/2011 10:05:00 AM

Lot No., Due Date: J1D190621; 05/10/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1110192; RSRTOT SrTot by GPC
SDG, Matrix: J01093; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Lisa Anderson Date 4/26/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 110192

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: 4/20/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/25/2011 1:09:04 PM

Lot No., Due Date: J1D190621; 05/10/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1110185; RGAMMA Gamma by GER
SDG, Matrix: J01093; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:
NCM 10-18215

First Level Lisa Gustafson Date 4/25/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1110185

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

Comments on any "No" response: CRDL = 0.1 pCi/g
See NCM #: 10-18215

Second Level Review: [signature] Date: 4/20/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18215
NCM Initiated By: Lisa Antonson
Date Opened: 04/25/2011
Date Closed:

Classification: Anomaly
Status: PMREVIEW
Production Area: Counting
Tests: Gamma by GER
Lot #'s (Sample #'s): J1D190621 (1,2,3,4), J1D200000 (185),
QC Batches: 1110185,

Nonconformance: MDA not met
Subcategory: Data accepted

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/25/2011	CRDL not met for all analytes due to reduced count time based on priority processing.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/25/2011	Data accepted.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 4/25/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/28/2011 1:00:42 PM

Lot No., Due Date: J1D190621; 05/10/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1110189; RTC99 Tc-99 by LSC
SDG, Matrix: J01093; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level [signature] Date 4/28/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1110189

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 = 15.0pci/L

Second Level Review: [signature] Date: 4/29/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/25/2011 11:50:37 AM

Lot No., Due Date: J1D190621; 05/10/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1110186; RTRITIUM H-3 by LSC
SDG, Matrix: J01093; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response:

First Level Tre Anderson **Date** 4/28/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1110286

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 = 10.0 pCi/g

Second Level Review: [signature] Date: 4/25/11

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

4/27/2011 1:15:41 PM

Lot No., Due Date: J1D190621; 05/10/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1115334; RC14 C-14 by LSC
SDG, Matrix: J01093; SOIL

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

2.0 QC Batch
2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A

2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A

2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A

2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples
3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A

3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A

3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A

3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A

3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data
4.1 Were results calculated in the correct units? Yes No N/A

4.2 Were analysis volumes entered correctly? Yes No N/A

4.3 Were Yields entered correctly? Yes No N/A

4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A

4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other
5.1 Are all nonconformances included and noted? Yes No N/A

5.2 Are all required forms filled out? Yes No N/A

5.3 Was the correct methodology used? Yes No N/A

5.4 Was transcription checked? Yes No N/A

5.5 Were all calculations checked at a minimum frequency? Yes No N/A

5.6 Are worksheet entries complete and correct? Yes No N/A

6.0 Comments on any No response: NCM 10-18235

First Level Lisa Antonson Date 4/27/11

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist

RADIOCHEMISTRY

Second Level Review

Batch Number: 1115334

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 = ~~50.0~~ 1.0 pCi/g RW 4/27/11
See NCM # 10-1835

Second Level Review: Rhonda W Jar Date: 4/27/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18235
NCM Initiated By: Lisa Antonson
Date Opened: 04/27/2011
Date Closed:

Classification: Anomaly
Status: PMREVIEW
Production Area: Counting
Tests: C-14 by LSC
Lot #'s (Sample #'s): J1D190621 (1,2,3,4), J1D200000 (187),
QC Batches: 1110187,

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	04/27/2011	In the original count, the Instrument blank had inconsistent counts of 14.6, 33.0, 29.2 and 21.8, causing all results to be negative. A recount was initiated on the entire batch to verify. The recount had good results.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	04/27/2011	The batch was recounted.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note	Response	Response Note

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 4/27/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review/Verification Checklist
RADIOCHEMISTRY, First Level Review

5/3/2011 4:29:59 PM

Lot No., Due Date: J1D190621; 05/10/2011
Client, Site: 127642; S00N063A00 HANFORD
QC Batch No., Method Test: 1117322; RNI63 Ni-63 by LSC
SDG, Matrix: J01093; SOIL

1.0 COC

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

2.0 QC Batch

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

3.0 QC & Samples

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

4.0 Raw Data

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

5.0 Other

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

6.0 Comments on any No response: NCM 10-18282

First Level Lisa Antonson Date 5/3/11

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1117322

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 = 30.0pCi/g
SCENCM#: 10-18282

Second Level Review: [signature] Date: 5/4/11

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

Clouseau
Nonconformance Memo

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

NCM #: 10-18282
NCM Initiated By: Lisa Antonson
Date Opened: 05/04/2011
Date Closed:

Classification: **Deficiency**
Status: **PMREVIEW**
Production Area: Environmental - Sep
Tests: Ni-63 by LSC
Lot #'s (Sample #'s): J1D190621 (1,2,3,4), J1D200000 (188),
QC Batches: 1110188,

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

Problem Description / Root Cause

Name	Date	Description
Lisa Antonson	05/04/2011	The dups were out in the original batch. Suspected switches between other batches run at the same time. Entire batch was rerun with good results.

Corrective Action

Name	Date	Corrective Action
Lisa Antonson	05/04/2011	The entire batch was rerun.

Client Notification Summary

Client	Project Manager	Notified	Response	How Notified	Note
	Response	Response Note			

Quality Assurance Verification

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

Approval History

Date Approved	Approved By	Position

Date Printed: 5/4/2011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Richland Laboratory
Data Review Check List
Hexavalent Chromium

Batch Number(s): 1112186

Lab Sample Numbers or SDG:J01093

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

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

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

Comments on any "No" response:

Analyst: _____ Date: 5/9/2011

Second-Level Review: _____ Date: 5/9/2011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-190-046	Page 1 of 2

Collector: BC Koelling	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 100N Field Remediation - Soil In-Process	Sampling Location: 124-N-4 Excavation		SAF No.: RC-190
Ice Chest No.: NA	Field Logbook No.: EL-1652-2	COA: R124N42000	Method of Shipment: HAND Delivery
Shipped To: TestAmerica Incorporated, Richland	Offsite Property No.: NA		Bill of Lading/Air Bill No.: NA

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 degrees C

J1D190621
JDG101093
DUE-5.10.11

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C
Type of Container	G/P	G/P	G/P	G	G	aG	aG	aG	aG	aG
No. of Container(s)	1	1	0	1	1	1	0	0	0	0
Volume	120mL	60mL	120mL	60mL	120mL	500mL	500mL	500mL	500mL	500mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196 (Hexavalent Chromium)	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)	PCBs - 8082	PAHs - 8310	Pesticides - 8081	Chloro-Herbicides - EPA8151

XMAD 4-7-11

Sample No.	Matrix *	Sample Date	Sample Time									
J1H226	SOIL	4-19-11	1050		✓	MG8L3						
J1H227	SOIL	4-19-11	1055		✓	MG8L1						
J1H228	SOIL	4-19-11	1105		✓	MG8L9						
J1H229	SOIL	4-19-11	1110		✓	MG8MC						

J1D190621

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

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Bailey Anthony Williams	1300 4/19/11	MA Bamberger MA Bamberger	1300 4/19/11
MA Bamberger MA Bamberger	1450 4/19/11	A. Freier A. Freier	1450 4-19-11
A. Freier A. Freier (WCH)	1605 4-19-11	Linda Garcia (TALR)	1605 4.19.11

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Vanadium, Zinc}; Mercury - 7471 - (CV) {Mercury}
(2) IC Anions - 9056 Modified {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate}; NO2/NO3 - 353.2 {Nitrogen in Nitrite and Nitrate}; pH (Soil) - 9045 {pH Measurement}

XMAD 4-7-11

REVIEWED BY JEB DATE 4-19-11

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

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

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-190-046	Page 2 of 2

Collector BC Koelling	Company Contact Joan Kessner	Telephone No. 375-4688	Project Coordinator KESSNER, JH
Project Designation 100N Field Remediation - Soil In-Process	Sampling Location 124-N-4 Excavation		SAF No. RC-190
Ice Chest No. NA	Field Logbook No. EL-1652-2	COA R124N42000	Method of Shipment Hand Delivery
Shipped To TestAmerica Incorporated, Richland	Offsite Property No. NA		Bill of Lading/Air Bill No. NA

Price Code 8L

Data Turnaround 21 Days

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

~~Cool 4 degrees C~~ NONE MAB 4-7-11

J1D190621

JDG001093

Preservation	None	None	None	None	None							
Type of Container	G/P	G/P	G/P	G/P	G/P							
No. of Container(s)	1	0	0	0	0							
Volume	500mL	500mL	500mL	500mL	500mL							
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Carbon-14 Low Level; Tritium - H3 Low Level Soil	Nickel-63	Strontium-89,90 -- Total Sr	Technetium-99							

J1D190621

Sample No.	Matrix *	Sample Date	Sample Time										
J1H226	SOIL	4-19-11	1050	✓	✓	✓	✓	✓					
J1H227	SOIL	4-19-11	1055	✓	✓	✓	✓	✓					
J1H228	SOIL	4-19-11	1105	✓	✓	✓	✓	✓					
J1H229	SOIL	4-19-11	1110	✓	✓	✓	✓	✓					

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Phillip Pentland / Koelling	4/19/11 1300	Received By/Stored In: MA Bamberger / MA Bamberger	4/19/11 1300
Relinquished By/Removed From: MA Bamberger / MA Bamberger	4/19/11 1450	Received By/Stored In: A. Freier / A. Freier	4-19-11 1450
Relinquished By/Removed From: WCH A. Freier / A. Freier	4-19-11 1450 1605	Received By/Stored In: TRR / Angel Lara / ANGEL	4/19/11 1605
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

(1) Gamma Spec (Client List) {Americium-241, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Radium-226}

REVIEWED BY JEK DATE 4-19-11

Matrix *

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

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

WCH-EE-011

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

J1D190621

WCH

Sample Check-in List

TAR

Date/Time Received: 4.19.11@1605 GM Screen Result (out) -4 (in) -7 Initials [✓]

Client: WCH SDG #: J01093 NA [ ] SAF #: RC-190 NA [ ]

Work Order Number: J1D190621 Chain of Custody # RC-190-046

Shipping Container ID: Hand Delivery ~~NA [ ]~~ Air Bill # ~~NA [ ]~~

Item 1 through 5 for shipping container only. Initial appropriate response.

1. Custody Seals on shipping container intact? Yes [✓] No [ ] No Custody Seal [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ] No Custody Seal [ ]
3. Chain of Custody record present? Yes [✓] No [ ]
4. Cooler temperature: on ice NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]

Item 6 through 10 for samples. Initial appropriate response.

6. Number of samples in shipping container (Each sample may contain multiple bottles): 4 @ 2 containers per sample
7. Sample holding times exceeded? NA [ ] Yes [ ] No [✓]
8. Samples have:
   - ✓ tape
   - ✓ custody seals
   - ✓ hazard labels
   - ✓ appropriate sample labels
9. Samples: (soil)
   - ✓ are in good condition
   - ____ are broken
   - ____ are leaking
   - ____ have air bubbles (Only for samples requiring no head space)
10. Sample pH appropriate for analysis requested Yes [ ] No [ ] N/A [✓] (Note discrepancies in #13)
    (If acidification necessary, then document sample ID, initial pH, amount of HNO_3 added and pH after addition)

    RPL ID # of preservative used : _____
11. Sample Location, Sample Collector Listed? * Yes [✓] No [ ]
    *For documentation only. No corrective action needed.
12. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
13. Description of anomalies (include sample numbers): NA [✓]

See other side for additional comments

Sample Custodian: Angela Garcia Date: 4.19.11@1605 TAR

Client Informed on _____ by _____ Person contacted _____

[✓] No action necessary; process as is

Project Manager [signature] Date 4/20/11

LS-023, Rev. 12, 10/10

4/21/2011 10:42:59 AM

Sample Preparation/Analysis

Balance Id:1120373922

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

CH Sr-Total Prp PRP003, Sep GPC003
TH Total Strontium by GPC
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech: 10:35 4/25/11 APA

Batch: 1110192 SOIL pCi/g
SEQ Batch, Test: None

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

Prep Tech: ,BouslaughP

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MG8L3-1-AC J1D190621-1-SAMP 04/19/2011 10:50		6.00g,in AmtRec: 1XJAR60MLG,1X500MLP	SRTA20863 03/29/11 #Containers: 2	1.5	1.4937g -1.4309g 62.8mg	50min	27A Scr:	1919 Alpha:	4/25/11 OA Beta:	
2 MG8L7-1-AC J1D190621-2-SAMP 04/19/2011 10:55		6.01g,in AmtRec: 1XJAR60MLG,1X500MLP	SRTA20864 03/29/11 #Containers: 2		1.4378g -1.4003g 37.5mg		27B Scr:	Alpha:	Beta:	
3 MG8L9-1-AC J1D190621-3-SAMP 04/19/2011 11:05		6.00g,in AmtRec: 1XJAR60MLG,1X500MLP	SRTA20865 03/29/11 #Containers: 2		1.4614g -1.3987g 62.7mg		27D Scr:	Alpha:	Beta:	
4 MG8L9-1-AL-X J1D190621-3-DUP 04/19/2011 11:05		6.02g,in AmtRec: 1XJAR60MLG,1X500MLP	SRTA20866 03/29/11 #Containers: 2		1.4745g -1.4139g 60.6mg		28B Scr:	Alpha:	Beta:	
5 MG8MC-1-AC J1D190621-4-SAMP 04/19/2011 11:10		6.02g,in AmtRec: 1XJAR60MLG,1X500MLP	SRTA20867 03/29/11 #Containers: 2		1.4710g -1.4096g 61.4mg		28D Scr:	Alpha:	Beta:	
6 MG88Q-1-AA-B J1D200000-192-BLK 04/20/2011 10:05 pd		6.00g,in AmtRec:	SRTA20868 03/29/11 #Containers: 1		1.5118g -1.4236g 88.2mg		31A Scr:	Alpha:	Beta:	
7 MG88Q-1-AC-C J1D200000-192-LCS 04/20/2011 10:05 pd		6.00g,in AmtRec:	STSB1560 03/10/11 #Containers: 1		1.5095g -1.4214g 88.1mg		31D Scr:	V Alpha:	! Beta:	

TestAmerica Laboratories, Inc.

4/21/2011 10:43:00 AM

Sample Preparation/Analysis

CH Sr-Total Prp PRP003, Sep GPC003
TH Total Strontium by GPC
5I CLIENT: HANFORD

Balance Id:1120373922

Pipet #: _____

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech:

Batch: 1110192 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	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:

Comments: ~~MG8L7-SAMP "Comments: Not enough sample for a gamma duplicate, please recount on a seperate detector. 4/21/11 tgw"~~ 4/25/11 APA

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

MG8L31AC-SAMP Constituent List:

Sr-90	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35
MG88Q1AA-BLK:					
Sr-90	RDL:1	pCi/g	LCL:	UCL:	RPD:
MG88Q1AC-LCS:					
Sr-90	RDL:1	pCi/g	LCL:70	UCL:130	RPD:35

MG8L31AC-SAMP Calc Info:

Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MG88Q1AA-BLK:					
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	
MG88Q1AC-LCS:					
Uncert Level (#s).: 2	Decay to SaDt: Y	Blk Subt.: N	Sci.Not.: Y	ODRs: B	

TestAmerica Laboratories, Inc.

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4/26/2011 10:04:15 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/26/2010, 5/1/2011, Batch: '1110192', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus		Accepting		Comments
1110192						
AC		Rev1C	**BouslaughP**	4/21/2011 10:30:23		
SC			Maucieris	IsBatched	4/20/2011 10:18:01 AM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	4/21/2011 10:30:23 AM	RL-PRP-003 REVISION 1
SC			WoodT	Prep1C	4/21/2011 11:11:39 PM	RL-PRP-003 REVISION 1
SC			AshworthA	Sep2C	4/25/2011 12:02:04 PM	RL-GPC-003 REVISION 1
SC			DawkinsO	CalcC	4/26/2011 12:03:28 AM	RL-CI-006 REVISION 1
SC			antonsonl	Rev1C	4/26/2011 10:04:08 AM	RL-DR-001 Rev 2
AC			**WoodT**	4/21/2011 11:11:39		
AC			**AshworthA**	4/25/2011 12:02:04		
AC			**DawkinsO**	4/26/2011 12:03:28		
AC			**antonsonl**	4/26/2011 10:04:08		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 5

ICOCFractions v4.8.44

4/21/2011 3:33:27 AM

Sample Preparation/Analysis

PRIORITY

Balance Id:1120421763

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

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

Pipet #:

AnalyDueDate: 05/10/2011 J01093

Sep1 DT/Tm Tech:

Batch: 1110185 SOIL pCi/g

PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech: ,WoodT

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MG8L3-1-AG J1D190621-1-SAMP 04/19/2011 10:50			342.40g,in AmtRec: 1XJAR60MLG,1X500MLP	342.40g #Containers: 2		S200	200	G10 Scr:	1764 Alpha:	4/22/11 m Beta:	
2 MG8L7-1-AG J1D190621-2-SAMP 04/19/2011 10:55			361.00g,in AmtRec: 1XJAR60MLG,1X500MLP	361.00g #Containers: 2				G11 Scr:	2047 Alpha:	4/22/11 OAL Beta:	
3 MG8L7-1-AJ-X J1D190621-2-DUP 04/19/2011 10:55		ISV	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				G10 Scr:	0657 Alpha:	4/22/11 Beta:	
4 MG8L9-1-AG J1D190621-3-SAMP 04/19/2011 11:05			356.50g,in AmtRec: 1XJAR60MLG,1X500MLP	356.50g #Containers: 2		S200		G7 Scr:	2048 Alpha:	4/22/11 OAL Beta:	
5 MG8MC-1-AG J1D190621-4-SAMP 04/19/2011 11:10			338.60g,in AmtRec: 1XJAR60MLG,1X500MLP	338.60g #Containers: 2				G10 Scr:	2049 Alpha:	Beta:	
6 MG872-1-AA-B J1D200000-185-BLK 04/20/2011 10:05 pd			348.00g,in AmtRec:	348.00g #Containers: 1	OSBK			G13 Scr:	2049 Alpha:	Beta:	
7 MG872-1-AC-C J1D200000-185-LCS 04/20/2011 10:05 pd			350.10g,in AmtRec:	350.10g #Containers: 1	QC20009 08/04/09,pd 09/01/09,r			G7 Scr:	0652 Alpha:	4/22/11 Beta:	

TestAmerica Laboratories, Inc.

TestAmerica Richland Wa.

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

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.49

4/21/2011 3:33:27 AM

Sample Preparation/Analysis

Balance Id:1120421763

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

Pipet #: _____

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech:

Batch: 1110185 pCi/g

SEQ Batch, Test: None

Sep2 DT/Tm Tech:

Prep Tech: ,WoodT

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

Comments: MG8L7-SAMP "Comments: Not enough sample for a gamma duplicate, please recount on a seperate detector. 4/21/11 tgw"

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

MG8L31AG-SAMP Constituent List:

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

MG8721AA-BLK:

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

MG8721AC-LCS:

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

MG8L31AG-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MG8721AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

MG8721AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

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4/25/2011 1:06:58 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/25/2010, 4/30/2011, Batch: '1110185', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1110185						
AC		Rev1C	WoodT	4/21/2011 3:06:26		
SC			Maucieris	IsBatched	4/20/2011 10:17:27 AM	ICOC_RADCALC v4.8.49
SC			WoodT	InPrep	4/21/2011 3:06:26 AM	rl-prp-003 revision 1
SC			WoodT	Prep1C	4/21/2011 3:33:38 AM	RL-PRP-003 REVISION 1
SC			WoodT	InPrep2	4/21/2011 3:33:51 AM	RL-GAM-001 REVISION 1
SC			WoodT	Prep2C	4/21/2011 3:34:09 AM	RL-GAM-001 REVISION 1
SC			BlackCL	InCnt1	4/21/2011 3:54:06 AM	RL-CI-007 REVISION 1
SC			BlackCL	CalcC	4/25/2011 7:02:40 AM	RL-CI-007 REVISION 1
SC			antonsonl	Rev1C	4/25/2011 1:06:23 PM	RL-DR-001 Rev 2
AC			**WoodT**	4/21/2011 3:33:38		
AC			**WoodT**	4/21/2011 3:33:51		
AC			**WoodT**	4/21/2011 3:34:09		
AC			**BlackCL**	4/21/2011 3:54:06		
AC			**BlackCL**	4/25/2011 7:02:40		
AC			**antonsonl**	4/25/2011 1:06:23 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Grp Rec Cnt: 7

ICOCFractions v4.8.44

4/21/2011 11:16:05 AM

Sample Preparation/Analysis

Balance Id:1120373922

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

AN Tc-99 Prp/Sep PRP003/LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech:

Batch: 1110189 **SOIL** **pCi/g** **PM, Quote: RW2, 27038**

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:
1 MG8L3-1-AE J1D190621-1-SAMP 04/19/2011 10:50		1.99g,in AmtRec: 1XJAR60MLG,1X500MLP #Containers: 2		60min		Scr:	Alpha:	Beta:
2 MG8L7-1-AE J1D190621-2-SAMP 04/19/2011 10:55		1.99g,in AmtRec: 1XJAR60MLG,1X500MLP #Containers: 2				Scr:	Alpha:	Beta:
3 MG8L9-1-AE J1D190621-3-SAMP 04/19/2011 11:05		2.01g,in AmtRec: 1XJAR60MLG,1X500MLP #Containers: 2				Scr:	Alpha:	Beta:
4 MG8L9-1-AJ-S J1D190621-3-MS 04/19/2011 11:05		1.99g,in AmtRec: 1XJAR60MLG,1X500MLP #Containers: 2	TCSG3104 12/21/10,pd 01/01/87,r			Scr:	Alpha:	Beta:
5 MG8L9-1-AK-X J1D190621-3-DUP 04/19/2011 11:05		1.99g,in AmtRec: 1XJAR60MLG,1X500MLP #Containers: 2				Scr:	Alpha:	Beta:
6 MG8MC-1-AE J1D190621-4-SAMP 04/19/2011 11:10		2.02g,in AmtRec: 1XJAR60MLG,1X500MLP #Containers: 2				Scr:	Alpha:	Beta:
7 MG88M-1-AA-B J1D200000-189-BLK 04/20/2011 10:05 pd		2.00g,in AmtRec: #Containers: 1				Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

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4/21/2011 11:16:06 AM

Sample Preparation/Analysis

Balance Id:1120373922

AN Tc-99 Prp/Sep PRP003/LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Pipet #: _____

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech:

Batch: 1110189 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

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:
8 MG88M-1-AC-C J1D200000-189-LCS 04/20/2011 10:05 pd		1.99g,in AmtRec:	TCSF2326 03/08/11,pd 01/01/67 r #Containers: 1	60 min		Scr:	Alpha:	Beta:
9 MG88M-1-AD-BN J1D200000-189-IBLK 04/20/2011 10:05 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments: MG8L7-SAMP "Comments: Not enough sample for a gamma duplicate, please recount on a seperate detector. 4/21/11 tgw"

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

MG8L31AE-SAMP Constituent List:
Tc-99 RDL:15 pCi/g LCL:70 UCL:130 RPD:35
MG8L91AJ-MS:

MG88M1AA-BLK:
Tc-99 RDL:15 pCi/g LCL: UCL: RPD:
MG88M1AC-LCS:
Tc-99 RDL:15 pCi/g LCL:70 UCL:130 RPD:35
MG88M1AD-IBLK:
Tc-99 RDL:15 pCi/g LCL: UCL: RPD:

MG8L31AE-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG8L91AJ-MS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88M1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88M1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88M1AD-IBLK:

TestAmerica Laboratories, Inc.

4/21/2011 11:16:06 AM

Sample Preparation/Analysis

AN Tc-99 Prp/Sep PRP003/LSC013
S5 Technetium-99 by Liquid Scint
5I CLIENT: HANFORD

Balance Id:

Pipet #:

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech:

Batch: 1110189 pCi/g

Sep2 DT/Tm Tech:

SEQ Batch, Test: None

Prep Tech:

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:

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

TestAmerica Laboratories, Inc.

4/28/2011 1:00:05 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/28/2010, 5/3/2011, Batch: '1110189', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1110189						
AC		Rev1C	BouslaughP	4/21/2011 11:04:27		
SC			Maucieris	IsBatched	4/20/2011 10:17:54 AM	ICOC_RADCALC v4.8.49
SC			BouslaughP	InPrep	4/21/2011 11:04:27 AM	RL-PRP-003 REVISION 1
SC			BouslaughP	Prep1C	4/21/2011 4:16:53 PM	RL-PRP-003 REVISION 1
SC			LuksicS	Sep2C	4/26/2011 1:50:59 PM	RL-LSC-013 REVISION 1
SC			BlackCL	InCnt1	4/26/2011 1:53:23 PM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	4/27/2011 1:19:32 PM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	4/28/2011 12:59:52 PM	RL-DR-001 Rev 2
AC			BouslaughP	4/21/2011 4:16:53 PM		
AC			LuksicS	4/26/2011 1:50:59 PM		
AC			BlackCL	4/26/2011 1:53:23 PM		
AC			ClarkR	4/27/2011 1:19:32 PM		
AC			antonsonl	4/28/2011 12:59:52		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 6

ICOCFractions v4.8.44

4/20/2011 10:05:41 AM

Sample Preparation/Analysis

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

AT H-3 Prp/Sep LSC002
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 05/10/2011

Batch: 1110186 SOIL pCi/g PM, Quote: RW2, 27038
SEQ Batch, Test: None

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 MG8L3-1-AF J1D190621-1-SAMP 04/19/2011 10:50	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
2 MG8L3-1-AJ-X J1D190621-1-DUP 04/19/2011 10:50	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
3 MG8L7-1-AF J1D190621-2-SAMP 04/19/2011 10:55	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
4 MG8L9-1-AF J1D190621-3-SAMP 04/19/2011 11:05	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
5 MG8MC-1-AF J1D190621-4-SAMP 04/19/2011 11:10	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
6 MG88C-1-AA-B J1D200000-186-BLK 04/20/2011 10:05 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
7 MG88C-1-AC-C J1D200000-186-LCS 04/20/2011 10:05 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

TestAmerica Laboratories, Inc.

4/20/2011 10:05:41 AM

Sample Preparation/Analysis

AT H-3 Prp/Sep LSC002
S6 Tritium by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 05/10/2011

Batch: 1110186 pCi/g
SEQ Batch, Test: None

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:
8 MG88C-1-AD-BN J1D200000-186-IBLK 04/20/2011 10:05 pd		AmtRec:	#Containers: 1			Scr:	Alpha:	Beta:

Comments:

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

MG8L31AF-SAMP Constituent List:
H-3 RDL:400 pCi/g LCL:70 UCL:130 RPD:35
MG88C1AA-BLK:

MG88C1AC-LCS:

MG88C1AD-IBLK:

MG8L31AF-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88C1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88C1AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88C1AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

4/25/2011 11:49:51 AM

ICOC Fraction Transfer/Status Report

ByDate: 4/25/2010, 4/30/2011, Batch: '1110186', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1110186						
AC		Rev1C	WagnerF	4/22/2011 12:43:50		
SC			Maucieris	IsBatched	4/20/2011 10:17:31 AM	ICOC_RADCALC v4.8.49
SC			WagnerF	Sep1C	4/22/2011 12:43:50 PM	RL-LSC-002 REVISION 1
SC			NyeP	Sep1C	4/22/2011 12:44:23 PM	RL-LSC-002 REVISION 1
SC			ClarkR	InCnt1	4/22/2011 1:56:21 PM	RL-CI-005 REVISION 1
SC			BlackCL	CalcC	4/25/2011 6:37:27 AM	RL-CI-006 REVISION 1
SC			antonsonl	Rev1C	4/25/2011 11:49:44 AM	RL-DR-001 Rev 2
AC			**NyeP**	4/22/2011 12:44:23		
AC			**ClarkR**	4/22/2011 1:56:21 PM		
AC			**BlackCL**	4/25/2011 6:37:27		
AC			**antonsonl**	4/25/2011 11:49:44		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 5

ICOCFractions v4.8.44

4/25/2011 4:02:39 PM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC , 5S C-14 Prp/Sep LSC008
Bechtel Hanford, Inc. S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

AnalyDueDate: 05/10/2011

Batch: 1115334 SOIL pCi/g PM, Quote: RW2, 27038
SEQ Batch, Test: None

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

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 MG8L3-2-AH J1D190621-1-SAMP 04/19/2011 10:50	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
2 MG8L3-2-AK-X J1D190621-1-DUP 04/19/2011 10:50	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
3 MG8L7-2-AH J1D190621-2-SAMP 04/19/2011 10:55	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
4 MG8L9-2-AH J1D190621-3-SAMP 04/19/2011 11:05	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
5 MG8MC-2-AH J1D190621-4-SAMP 04/19/2011 11:10	AmtRec: 1XJAR60MLG,1X500MLP	#Containers: 2				Scr:	Alpha:	Beta:
6 MG88J-2-AA-B J1D200000-187-BLK 04/25/2011 16:02 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:
7 MG88J-2-AC-C J1D200000-187-LCS 04/25/2011 16:02 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

4/25/2011 4:02:39 PM

Sample Preparation/Analysis

5S C-14 Prp/Sep LSC008
S3 Carbon-14 by Liquid Scint
5I CLIENT: HANFORD

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

AnalyDueDate: 05/10/2011

Batch: 1115334 pCi/g
SEQ Batch, Test: None

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:
8 MG88J-2-AD-BN J1D200000-187-IBLK 04/25/2011 16:02 pd	AmtRec:	#Containers: 1				Scr:	Alpha:	Beta:

Comments: MG8L7-SAMP "Comments: Not enough sample for a gamma duplicate, please recount on a seperate detector. 4/21/11 tgw"

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

MG8L32AH-SAMP Constituent List:

MG88J2AA-BLK:

MG88J2AC-LCS:

MG88J2AD-IBLK:

MG8L32AH-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88J2AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88J2AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG88J2AD-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica Laboratories, Inc.

*** RE-COUNT REQUEST ***

DUE DATE 5/10/11

CUSTOMER WCH

ANALYSIS C-14

MATRIX Soil

LOT NUMBER JID90021

SAMPLE DELIVERY GROUP

OLD BATCH NUMBER 1110187

NEW BATCH NUMBER 1115334

LAB SAMPLE ID	CLIENT ID	REASON FOR REQUEST & ANALYSIS COMMENTS
1) all		high BN counts ~~at~~ LMA 4/25/11
2)		negative results
3)		please shake well + recount
4)		
5)		
6)		
7)		
8)		
9)		
10)		
11)		
12)		
13)		
14)		
15)		
16)		
17)		
18)		
19)		
20)		

4/27/2011 1:14:49 PM

ICOC Fraction Transfer/Status Report

ByDate: 4/27/2010, 5/2/2011, Batch: '1115334', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			Comments
1115334						
AC		Rev1C	BlackCL	4/26/2011 9:56:53		
SC			BlackCL	InCnt1	4/26/2011 9:56:53 AM	RL-CI-005 REVISION 1
SC			ClarkR	CalcC	4/27/2011 11:53:49 AM	RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	4/27/2011 1:14:42 PM	RL-DR-001 Rev 2
AC			ClarkR	4/27/2011 11:53:49		
AC			antonsonl	4/27/2011 1:14:42 PM		

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

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Grp Rec Cnt: 3

ICOCFractions v4.8.44

4/27/2011 10:32:20 PM

Sample Preparation/Analysis

Balance Id:1120373922

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

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

Pipet #: _____

AnalyDueDate: 05/10/2011

Sep1 DT/Tm Tech:

Batch: 1117322 SOIL pCi/g PM, Quote: RW2, 27038

Sep2 DT/Tm Tech:

SEQ Batch, Test: None All Tests: 1110185 AXTA, 1110186 ATS6, 1110187 5SS3, 1110188 AFS4, 1110189 ANS5, 1110192 CHTH, 1112186 DWEA, 1115334 5SS3, 1117322 AFS4, 1117387 ANS5,

Prep Tech: ,WoodT

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MG8L3-2-AD J1D190621-1-SAMP 04/19/2011 10:50		AmtRec: 1XJAR60MLG,1X500MLP	0.25g,in	0.25g #Containers: 2	NITA4064 03/30/11	30	Scr:	Alpha:	Beta:	
2 MG8L7-2-AD J1D190621-2-SAMP 04/19/2011 10:55		AmtRec: 1XJAR60MLG,1X500MLP	0.25g,in	0.25g #Containers: 2	NITA4065 03/30/11		Scr:	Alpha:	Beta:	
3 MG8L7-2-AK-X J1D190621-2-DUP 04/19/2011 10:55		AmtRec: 1XJAR60MLG,1X500MLP	0.24g,in	0.24g #Containers: 2	NITA4066 03/30/11		Scr:	Alpha:	Beta:	
4 MG8L9-2-AD J1D190621-3-SAMP 04/19/2011 11:05		AmtRec: 1XJAR60MLG,1X500MLP	0.26g,in	0.26g #Containers: 2	NITA4067 03/30/11		Scr:	Alpha:	Beta:	
5 MG8MC-2-AD J1D190621-4-SAMP 04/19/2011 11:10		AmtRec: 1XJAR60MLG,1X500MLP	0.27g,in	0.27g #Containers: 2	NITA4068 03/30/11		Scr:	Alpha:	Beta:	
6 MHKV7-1-AA-B J1D270000-322-BLK 04/27/2011 13:55 pd		AmtRec:	0.27g,in	0.27g #Containers: 1	NITA4069 03/30/11		Scr:	Alpha:	Beta:	
7 MHKV7-1-AC-C J1D270000-322-LCS 04/27/2011 13:55 pd		AmtRec:	0.26g,in	0.26g #Containers: 1	NISA1406 04/05/11		Scr:	Alpha:	Beta:	

TestAmerica Richland Wa.

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

Page 1

ISV - Insufficient Volume for Analysis

WO Cnt: 7

Prep_SamplePrep v4.8.49

4/27/2011 10:32:22 PM

Sample Preparation/Analysis

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

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

AnalyDueDate: 05/10/2011

Batch: 1117322 pCi/g
SEQ Batch, Test: None

Work Order, Lot, Sample Date	Total Amt /Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MHKV7-1-AE-BN										
J1D270000-322-IBLK										
04/27/2011 17:10 pd		AmtRec:	#Containers: 1				Scr:	Alpha:		Beta:

Comments: MG8L7-SAMP "Comments: Not enough sample for a gamma duplicate, please recount on a seperate detector. 4/21/11 tgw"

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

MG8L32AD-SAMP Constituent List:

MHKV71AA-BLK:

MHKV71AC-LCS:

MHKV71AE-IBLK:

MG8L32AD-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHKV71AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHKV71AC-LCS:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHKV71AE-IBLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

5/3/2011 4:29:00 PM

ICOC Fraction Transfer/Status Report

ByDate: 5/3/2010, 5/8/2011, Batch: '1117322', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting				Comments
1117322							
AC		Rev1C	WoodT	4/27/2011 5:35:50 PM			
SC			WoodT	InPrep	4/27/2011 5:35:50 PM		RL-PRP-003 REVISION 1
SC			woodt	IsBatched	4/27/2011 5:36:58 PM		ICOC_RADCALC v4.8.49
SC			WoodT	Prep1C	4/27/2011 10:22:23 PM		RL-PRP-003 REVISION 1
SC			BouslaughP	Prep1C	4/28/2011 7:00:14 AM		RL-PRP-003 REVISION 1
SC			ClarkR	InCnt1	4/29/2011 11:44:51 AM		RL-CI-005 REVISION 1
SC			ClarkR	CalcC	5/2/2011 3:16:51 PM		RL-CI-005 REVISION 1
SC			antonsonl	Rev1C	5/3/2011 4:28:52 PM		RL-DR-001 Rev 2
AC			**WoodT**	4/27/2011 10:22:23			
AC			**BouslaughP**	4/28/2011 7:00:14			
AC			**ClarkR**	4/29/2011 11:44:51			
AC			**ClarkR**	5/2/2011 3:16:51 PM			
AC			**antonsonl**	5/3/2011 4:28:52 PM			

AC: Accepting Entry; SC: Status Change

TestAmerica Richland

Richland Wa.

Page 1

Grp Rec Cnt: 6

ICOCFractions v4.8.44

4/25/2011 8:01:03 AM

Sample Preparation/Analysis

127642, Washington Closure Hanford LLC
Bechtel Hanford, Inc.

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

AnalyDueDate: 05/10/2011

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

Batch: 1112186 SOIL mg/kg PM, Quote: RW2, 27038
SEQ Batch, Test: None All Tests: 1110185 AXTA, 1110186 ATS6, 1110187 5SS3, 1110188 AFS4, 1110189 ANS5, 1110192 CHTH, 1112186
DWEA,

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
1 MG8L3-1-AA J1D190621-1-SAMP 04/19/2011 10:50		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:
2 MG8L3-1-AL-S J1D190621-1-MS 04/19/2011 10:50		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:
3 MG8L3-1-AM-D J1D190621-1-MSD 04/19/2011 10:50		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:
4 MG8L3-1-AN-X J1D190621-1-DUP 04/19/2011 10:50		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:
5 MG8L7-1-AA J1D190621-2-SAMP 04/19/2011 10:55		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:
6 MG8L9-1-AA J1D190621-3-SAMP 04/19/2011 11:05		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:
7 MG8MC-1-AA J1D190621-4-SAMP 04/19/2011 11:10		AmtRec: 1XJAR60MLG,1X500MLP		#Containers: 2			Scr:	Alpha:		Beta:

Test America Laboratories, Inc.

4/25/2011 8:01:04 AM

Sample Preparation/Analysis

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

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

AnalyDueDate: 05/10/2011

Batch: 1112186 mg/kg
SEQ Batch, Test: None

Work Order, Lot, Sample DateTime	Total Amt/Unit	Initial Aliquot Amt/Unit	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On | Off (24hr) Circle	CR Analyst, Init/Date	Comments:
8 MHD6V-1-AA-B J1D220000-186-BLK 04/25/2011 08:02 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:
9 MHD6V-1-AC-C J1D220000-186-LCS 04/25/2011 08:02 pd		AmtRec:	#Containers: 1					Scr:	Alpha:	Beta:

Comments: MG8L7-SAMP "Comments: Not enough sample for a gamma duplicate, please recount on a seperate detector. 4/21/11 tgw"

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

MG8L31AA-SAMP Constituent List:
HEXCHROME RDL:0.1548 mg/kg LCL:80 UCL:120 RPD:20
MG8L31AL-MS Constituent List:
HEXCHROME RDL:0.35 mg/kg LCL:75 UCL:125 RPD:20
MG8L31AM-MSD:
HEXCHROME RDL:0.35 mg/kg LCL:75 UCL:125 RPD:20
MHD6V1AA-BLK:
HEXCHROME RDL:0.1548 mg/kg LCL: UCL: RPD:
MHD6V1AC-LCS:
HEXCHROME RDL:0.35 mg/kg LCL:80 UCL:120 RPD:20

MG8L31AA-SAMP Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG8L31AL-MS Calc Info:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MG8L31AM-MSD:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHD6V1AA-BLK:
Uncert Level (#s).: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B
MHD6V1AC-LCS:

TestAmerica Laboratories, Inc.

Sample Preparation/Analysis

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

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

AnalyDueDate: 05/10/2011

Batch: 1112186 mg/kg
SEQ Batch, Test: None

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

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

TestAmerica Laboratories, Inc.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-14883-1

SDG Number: J01093

Job Description: SAF# RC-190

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

Attention: Joan H Kessner

Approved for release
Kae E Yoder
Project Manager II
5/12/2011 12:27 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com

05/12/2011

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: 280-14883-1

SDG #: J01093
SAF#: RC-190

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

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H226	280-14883-1	6010/7471/9056M/353.2/9045/WTPH-D+/ 8260A/8270A/8082/8310/8081/8151	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ 8260B/8270C/8082/8310/8081A/8151A
J1H227	280-14883-2	6010/7471/9056M/353.2/9045/WTPH-D+/ 8260A/8270A/8082/8310/8081/8151	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ 8260B/8270C/8082/8310/8081A/8151A
J1H228	280-14883-3	6010/7471/9056M/353.2/9045/WTPH-D+/ 8260A/8270A/8082/8310/8081/8151	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ 8260B/8270C/8082/8310/8081A/8151A
J1H229	280-14883-4	6010/7471/9056M/353.2/9045/WTPH-D+/ 8260A/8270A/8082/8310/8081/8151	6010B/7471A/9056M/353.2/9045C/NWTPH-Dx/ 8260B/8270C/8082/8310/8081A/8151A

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 4/21/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.5 C.

GC/MS VOLATILES - SW846 8260B
No anomalies were encountered.

GC/MS SEMIVOLATILES - SW846 8270C
No anomalies were encountered.

GC SEMIVOLATILES - SW846 8081A - PESTICIDEs
The RPD between the primary and confirmation columns exceeded 40% for analytes in sample J1H227. 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.

GC SEMIVOLATILES - SW846 8082 - PCBs
The RPD between the primary and confirmation columns exceeded 25% for Aroclor 1260 in sample J1H227. The result has been flagged with a "P".

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8151A - HERBICIDEs
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to the nature of the sample matrix, sample J1H228 had to be analyzed at a dilution, and the associated results have been flagged with a "D". The reporting limits have been adjusted relative to the dilution required.

The surrogate recovery has been "D" flagged in sample J1H228, as the recovery obtained is calculated from a diluted sample and is not considered reliable.

In some cases, the RPD between the primary and confirmation columns exceeded 40%. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

Low levels of Dinoseb are present in the method blank associated with batch 280-63901. 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".

The LCS associated with batch 280-63901 exhibited percent recoveries outside the control limits, biased high, for 2,4-Dichlorophenoxyacetic acid and Dicamba, and the associated sample results have been flagged "N". In addition, the MSD aliquot of the MS/MSD performed on sample J1H226 in batch 280-63901 also exhibited percent recoveries outside the control limits, biased high, for 2,4-Dichlorophenoxyacetic acid and Dicamba. This is an indicator that data may be biased high. As no detectable concentrations of 2,4-Dichlorophenoxyacetic acid and Dicamba are present in associated samples, corrective action is deemed unnecessary.

The MS/MSD performed on sample J1H226 exhibited spike compound recoveries outside the control limits, and the associated sample results have been flagged "N". In addition, RPD limits were exceeded. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

Continuing Calibration Verification (CCV) standards exhibited %Difference (%D) values >15%, biased low, for 2,4-DB (-17%, -16%). The overall mean %D is ≤15%; therefore, method criteria have been met and corrective action is deemed unnecessary.

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 Acenaphthene in samples J1H227, J1H228 and J1H229. 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 280-63706 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

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

Low levels of Zinc are present in the method blank associated with batch 280-63706. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1H226; therefore, control limits are not applicable.

No other anomalies were encountered.

GENERAL CHEMISTRY - MCAWW 353.2 - NITRATE+NITRITE
The Matrix Spike performed on sample J1H226 exhibited the percent recovery outside the control limits, and the associated sample result has been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, the Sulfate analysis of sample J1H228 had to be performed at a dilution, and the associated result has been flagged with a "D". The reporting limit has been adjusted relative to the dilution required.

Low levels of Nitrate as N are present in the method blank associated with batch 280-63808. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9045C - PH

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	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/MS Semi VOA		
	U	Analyzed for but not detected.
	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		
	B	Analyte was found in the associated method blank as well as in the sample.
	U	Analyzed for but not detected.
	N	LCS, LCSD: Recovery exceeds upper or lower control limits.
	X	More than 40% difference between columns, lower result reported.
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	*	MS/MSD RPD exceeded the control limit
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	*	Surrogate exceeds the control limit
	D	The reported value is from a dilution.
	P	This flag is used for an aroclor target analyte where there is greater than 25% difference for detected concentrations between the two GC columns

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Section	Qualifier	Description
Metals		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
General Chemistry		
	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	N	MS, MSD: Spike recovery exceeds upper or lower control limits.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
	C	The analyte was detected in both the sample and the assoicated QC blank, and the sample concentration was </= 5X the blank concentration.
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: 280-14883-1
Sdg Number: J01093

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B	
Purge and Trap	TAL DEN		SW846 5030B
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Organochlorine Pesticides (GC)	TAL DEN	SW846 8081A	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL DEN	SW846 8082	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Herbicides (GC)	TAL DEN	SW846 8151A	
Extraction (Herbicides)	TAL DEN		SW846 8151A
Northwest - Semi-Volatile Petroleum Products (GC)	TAL DEN	NWTPH NWTPH-Dx	
Ultrasonic Extraction	TAL DEN		SW846 3550C
PAHs (HPLC)	TAL DEN	SW846 8310	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
pH	TAL DEN	SW846 9045C	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
Anions, Ion Chromatography	TAL DEN	SW846 9056M	
Deionized Water Leaching Procedure	TAL DEN		ASTM DI Leach
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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

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: 280-14883-1
Sdg Number: J01093

Method	Analyst	Analyst ID
SW846 8260B	Reinhardt, Jason	JR
SW846 8270C	Kiekel, Daniel C	DCK
SW846 8081A	Ream, Brian E	BER
SW846 8082	Jackson, Todd D	TDJ
SW846 8151A	Wells, David	DW
NWTPH NWTPH-Dx	Birdsell, Matthew R	MRB
SW846 6010B	Harre, John K	JKH
SW846 7471A	Niman, Katie M	KMN
MCAWW 353.2	Stosak, Lara E	LES
SW846 9045C	Ayala, Delaina	DA
SW846 9056M	Phan, Thu L	TLP
ASTM D-2216	Gilbert, Bryan M	BMG
SW846 8310	Hall, Koley J	KJH

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-14883-1	J1H226	Solid	04/19/2011 1050	04/21/2011 0930
280-14883-2	J1H227	Solid	04/19/2011 1055	04/21/2011 0930
280-14883-3	J1H228	Solid	04/19/2011 1105	04/21/2011 0930
280-14883-4	J1H229	Solid	04/19/2011 1110	04/21/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6146.D
Dilution:	1.0			Initial Weight/Volume:	5.225 g
Analysis Date:	04/22/2011 1555			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		7.2	J	5.2	19
Benzene		0.46	U	0.46	4.9
Bromodichloromethane		0.21	U	0.21	4.9
Bromoform		0.22	U	0.22	4.9
Bromomethane		0.49	U	0.49	9.7
2-Butanone (MEK)		1.8	U	1.8	9.7
Carbon disulfide		0.41	U	0.41	4.9
Carbon tetrachloride		0.61	U	0.61	4.9
Chlorobenzene		0.53	U	0.53	4.9
Dibromochloromethane		0.56	U	0.56	4.9
Chloroethane		0.87	U	0.87	9.7
Chloroform		0.28	U	0.28	4.9
Chloromethane		0.75	U	0.75	9.7
1,1-Dichloroethane		0.20	U	0.20	4.9
1,2-Dichloroethane		0.68	U	0.68	4.9
1,1-Dichloroethene		0.58	U	0.58	4.9
1,2-Dichloroethene, Total		0.38	U	0.38	4.9
1,2-Dichloropropane		0.54	U	0.54	4.9
cis-1,3-Dichloropropene		1.3	U	1.3	4.9
trans-1,3-Dichloropropene		0.65	U	0.65	4.9
Ethylbenzene		0.65	U	0.65	4.9
2-Hexanone		4.8	U	4.8	19
Methylene Chloride		0.73	U	0.73	4.9
4-Methyl-2-pentanone (MIBK)		4.3	U	4.3	9.7
Styrene		0.61	U	0.61	4.9
1,1,2,2-Tetrachloroethane		0.59	U	0.59	4.9
Tetrachloroethene		0.58	U	0.58	4.9
Toluene		0.67	U	0.67	4.9
1,1,1-Trichloroethane		0.51	U	0.51	4.9
1,1,2-Trichloroethane		0.86	U	0.86	4.9
Trichloroethene		0.22	U	0.22	4.9
Vinyl chloride		1.3	U	1.3	4.9
Xylenes, Total		0.59	U	0.59	4.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		58 - 140
Toluene-d8 (Surr)	107		80 - 126
4-Bromofluorobenzene (Surr)	102		76 - 127
Dibromofluoromethane (Surr)	106		75 - 121

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6146.D
Dilution:	1.0			Initial Weight/Volume:	5.225 g
Analysis Date:	04/22/2011 1555			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6147.D
Dilution:	1.0			Initial Weight/Volume:	5.508 g
Analysis Date:	04/22/2011 1618			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.1	U	5.1	19
Benzene		0.44	U	0.44	4.7
Bromodichloromethane		0.21	U	0.21	4.7
Bromoform		0.22	U	0.22	4.7
Bromomethane		0.47	U	0.47	9.4
2-Butanone (MEK)		1.7	U	1.7	9.4
Carbon disulfide		0.40	U	0.40	4.7
Carbon tetrachloride		0.59	U	0.59	4.7
Chlorobenzene		0.51	U	0.51	4.7
Dibromochloromethane		0.54	U	0.54	4.7
Chloroethane		0.84	U	0.84	9.4
Chloroform		0.27	U	0.27	4.7
Chloromethane		0.73	U	0.73	9.4
1,1-Dichloroethane		0.20	U	0.20	4.7
1,2-Dichloroethane		0.66	U	0.66	4.7
1,1-Dichloroethene		0.56	U	0.56	4.7
1,2-Dichloroethene, Total		0.37	U	0.37	4.7
1,2-Dichloropropane		0.52	U	0.52	4.7
cis-1,3-Dichloropropene		1.2	U	1.2	4.7
trans-1,3-Dichloropropene		0.63	U	0.63	4.7
Ethylbenzene		0.63	U	0.63	4.7
2-Hexanone		4.6	U	4.6	19
Methylene Chloride		0.71	U	0.71	4.7
4-Methyl-2-pentanone (MIBK)		4.1	U	4.1	9.4
Styrene		0.59	U	0.59	4.7
1,1,2,2-Tetrachloroethane		0.57	U	0.57	4.7
Tetrachloroethene		0.56	U	0.56	4.7
Toluene		0.65	U	0.65	4.7
1,1,1-Trichloroethane		0.49	U	0.49	4.7
1,1,2-Trichloroethane		0.83	U	0.83	4.7
Trichloroethene		0.22	U	0.22	4.7
Vinyl chloride		1.3	U	1.3	4.7
Xylenes, Total		0.57	U	0.57	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		58 - 140
Toluene-d8 (Surr)	107		80 - 126
4-Bromofluorobenzene (Surr)	107		76 - 127
Dibromofluoromethane (Surr)	105		75 - 121

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid

% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6147.D
Dilution:	1.0			Initial Weight/Volume:	5.508 g
Analysis Date:	04/22/2011 1618			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6148.D
Dilution:	1.0			Initial Weight/Volume:	6.012 g
Analysis Date:	04/22/2011 1641			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		7.0	J	4.6	17
Benzene		0.40	U	0.40	4.2
Bromodichloromethane		0.19	U	0.19	4.2
Bromoform		0.19	U	0.19	4.2
Bromomethane		0.42	U	0.42	8.5
2-Butanone (MEK)		1.6	U	1.6	8.5
Carbon disulfide		0.36	U	0.36	4.2
Carbon tetrachloride		0.53	U	0.53	4.2
Chlorobenzene		0.46	U	0.46	4.2
Dibromochloromethane		0.48	U	0.48	4.2
Chloroethane		0.75	U	0.75	8.5
Chloroform		0.25	U	0.25	4.2
Chloromethane		0.65	U	0.65	8.5
1,1-Dichloroethane		0.18	U	0.18	4.2
1,2-Dichloroethane		0.59	U	0.59	4.2
1,1-Dichloroethene		0.50	U	0.50	4.2
1,2-Dichloroethene, Total		0.33	U	0.33	4.2
1,2-Dichloropropane		0.47	U	0.47	4.2
cis-1,3-Dichloropropene		1.1	U	1.1	4.2
trans-1,3-Dichloropropene		0.57	U	0.57	4.2
Ethylbenzene		0.57	U	0.57	4.2
2-Hexanone		4.1	U	4.1	17
Methylene Chloride		0.64	U	0.64	4.2
4-Methyl-2-pentanone (MIBK)		3.7	U	3.7	8.5
Styrene		0.53	U	0.53	4.2
1,1,2,2-Tetrachloroethane		0.52	U	0.52	4.2
Tetrachloroethene		0.50	U	0.50	4.2
Toluene		0.58	U	0.58	4.2
1,1,1-Trichloroethane		0.44	U	0.44	4.2
1,1,2-Trichloroethane		0.75	U	0.75	4.2
Trichloroethene		0.19	U	0.19	4.2
Vinyl chloride		1.1	U	1.1	4.2
Xylenes, Total		0.52	U	0.52	4.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		58 - 140
Toluene-d8 (Surr)	108		80 - 126
4-Bromofluorobenzene (Surr)	102		76 - 127
Dibromofluoromethane (Surr)	107		75 - 121

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6148.D
Dilution:	1.0			Initial Weight/Volume:	6.012 g
Analysis Date:	04/22/2011 1641			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6149.D
Dilution:	1.0			Initial Weight/Volume:	5.097 g
Analysis Date:	04/22/2011 1703			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acetone		5.4	U	5.4	20
Benzene		0.48	U	0.48	5.1
Bromodichloromethane		0.22	U	0.22	5.1
Bromoform		0.23	U	0.23	5.1
Bromomethane		0.51	U	0.51	10
2-Butanone (MEK)		1.9	U	1.9	10
Carbon disulfide		0.42	U	0.42	5.1
Carbon tetrachloride		0.64	U	0.64	5.1
Chlorobenzene		0.55	U	0.55	5.1
Dibromochloromethane		0.58	U	0.58	5.1
Chloroethane		0.90	U	0.90	10
Chloroform		0.29	U	0.29	5.1
Chloromethane		0.78	U	0.78	10
1,1-Dichloroethane		0.21	U	0.21	5.1
1,2-Dichloroethane		0.71	U	0.71	5.1
1,1-Dichloroethene		0.60	U	0.60	5.1
1,2-Dichloroethene, Total		0.39	U	0.39	5.1
1,2-Dichloropropane		0.56	U	0.56	5.1
cis-1,3-Dichloropropene		1.3	U	1.3	5.1
trans-1,3-Dichloropropene		0.68	U	0.68	5.1
Ethylbenzene		0.68	U	0.68	5.1
2-Hexanone		4.9	U	4.9	20
Methylene Chloride		0.76	U	0.76	5.1
4-Methyl-2-pentanone (MIBK)		4.4	U	4.4	10
Styrene		0.64	U	0.64	5.1
1,1,2,2-Tetrachloroethane		0.62	U	0.62	5.1
Tetrachloroethene		0.60	U	0.60	5.1
Toluene		0.70	U	0.70	5.1
1,1,1-Trichloroethane		0.53	U	0.53	5.1
1,1,2-Trichloroethane		0.89	U	0.89	5.1
Trichloroethene		0.23	U	0.23	5.1
Vinyl chloride		1.4	U	1.4	5.1
Xylenes, Total		0.62	U	0.62	5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	111		58 - 140
Toluene-d8 (Surr)	109		80 - 126
4-Bromofluorobenzene (Surr)	106		76 - 127
Dibromofluoromethane (Surr)	109		75 - 121

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid

% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Prep Method:	5030B	Prep Batch:	280-63667	Lab File ID:	J6149.D
Dilution:	1.0			Initial Weight/Volume:	5.097 g
Analysis Date:	04/22/2011 1703			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1210				

Tentatively Identified Compounds **Number TIC's Found:** **0**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Tentatively Identified Compound		None	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0187.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2011 2107			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		16	U	16	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		45	U	45	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		81	U	81	330
4-Chloro-3-methylphenol		65	U	65	330
2-Chloronaphthalene		9.9	U	9.9	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		13	U	13	330
3,3'-Dichlorobenzidine		89	U	89	650
2,4-Dichlorophenol		9.9	U	9.9	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		65	U	65	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	650
2,4-Dinitrophenol		330	U	330	820
2,4-Dinitrotoluene		65	U	65	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		9.9	U	9.9	330
Hexachlorocyclopentadiene		49	U	49	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0187.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2011 2107			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		49	U	49	330
3-Nitroaniline		72	U	72	330
4-Nitroaniline		72	U	72	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		9.9	U	9.9	330
4-Nitrophenol		96	U	96	650
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	650
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	J	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		9.9	U	9.9	330
2,4,6-Trichlorophenol		9.9	U	9.9	330

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	74		50 - 120
2-Fluorophenol	77		53 - 120
Nitrobenzene-d5	75		50 - 120
Phenol-d5	80		52 - 120
Terphenyl-d14	80		55 - 120
2,4,6-Tribromophenol	84		51 - 120

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0187.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2011 2107			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
2216-30-0	Heptane, 2,5-dimethyl-	2.90	140	N J
	Unknown	2.98	2900	N J
	Unknown	10.18	140	N J

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0188.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2011 2127			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		61	J	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		83	U	83	330
4-Chloro-3-methylphenol		67	U	67	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		91	U	91	670
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		67	U	67	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	670
2,4-Dinitrophenol		340	U	340	830
2,4-Dinitrotoluene		67	U	67	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		15	U	15	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0188.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2011 2127			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		74	U	74	330
4-Nitroaniline		73	U	73	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		98	U	98	670
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	670
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	71		50 - 120
2-Fluorophenol	72		53 - 120
Nitrobenzene-d5	71		50 - 120
Phenol-d5	76		52 - 120
Terphenyl-d14	80		55 - 120
2,4,6-Tribromophenol	85		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0188.D
Dilution:	1.0			Initial Weight/Volume:	30.9 g
Analysis Date:	05/04/2011 2127			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
2213-23-2	Heptane, 2,4-dimethyl-	2.78	150	N J
2216-30-0	Heptane, 2,5-dimethyl-	2.90	140	N J
	Unknown	2.98	3500	N J

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0189.D
Dilution:	1.0			Initial Weight/Volume:	32.0 g
Analysis Date:	05/04/2011 2147			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	320
Acenaphthylene		16	U	16	320
Anthracene		16	U	16	320
Benzo[a]anthracene		19	U	19	320
Benzo[a]pyrene		19	U	19	320
Benzo[b]fluoranthene		25	U	25	320
Benzo[ghi]perylene		15	U	15	320
Benzo[k]fluoranthene		38	U	38	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		44	U	44	320
4-Bromophenyl phenyl ether		18	U	18	320
Butyl benzyl phthalate		41	U	41	320
Carbazole		34	U	34	320
4-Chloroaniline		78	U	78	320
4-Chloro-3-methylphenol		63	U	63	320
2-Chloronaphthalene		9.5	U	9.5	320
2-Chlorophenol		20	U	20	320
4-Chlorophenyl phenyl ether		20	U	20	320
Chrysene		26	U	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		11	U	11	320
1,4-Dichlorobenzene		13	U	13	320
3,3'-Dichlorobenzidine		86	U	86	630
2,4-Dichlorophenol		9.5	U	9.5	320
Diethyl phthalate		25	U	25	320
2,4-Dimethylphenol		63	U	63	320
Dimethyl phthalate		22	U	22	320
Di-n-butyl phthalate		28	U	28	320
4,6-Dinitro-2-methylphenol		320	U	320	630
2,4-Dinitrophenol		320	U	320	790
2,4-Dinitrotoluene		63	U	63	320
2,6-Dinitrotoluene		27	U	27	320
Di-n-octyl phthalate		55	J	14	320
Fluoranthene		34	U	34	320
Fluorene		17	U	17	320
Hexachlorobenzene		28	U	28	320
Hexachlorobutadiene		9.5	U	9.5	320
Hexachlorocyclopentadiene		48	U	48	320
Hexachloroethane		20	U	20	320
Indeno[1,2,3-cd]pyrene		21	U	21	320
Isophorone		16	U	16	320
2-Methylnaphthalene		18	U	18	320

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0189.D
Dilution:	1.0			Initial Weight/Volume:	32.0 g
Analysis Date:	05/04/2011 2147			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		12	U	12	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		69	U	69	320
Nitrobenzene		21	U	21	320
2-Nitrophenol		9.5	U	9.5	320
4-Nitrophenol		93	U	93	630
N-Nitrosodi-n-propylamine		30	U	30	320
N-Nitrosodiphenylamine		20	U	20	320
Pentachlorophenol		320	U	320	630
Phenanthrene		16	U	16	320
Phenol		17	U	17	320
Pyrene		12	U	12	320
1,2,4-Trichlorobenzene		27	U	27	320
2,4,5-Trichlorophenol		9.5	U	9.5	320
2,4,6-Trichlorophenol		9.5	U	9.5	320

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	72		50 - 120
2-Fluorophenol	73		53 - 120
Nitrobenzene-d5	72		50 - 120
Phenol-d5	77		52 - 120
Terphenyl-d14	78		55 - 120
2,4,6-Tribromophenol	79		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0189.D
Dilution:	1.0			Initial Weight/Volume:	32.0 g
Analysis Date:	05/04/2011 2147			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.78	130	N J
2216-30-0	Heptane, 2,5-dimethyl-	2.90	140	N J
	Unknown	2.99	4400	N J

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0192.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Analysis Date:	05/04/2011 2248			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	340
Acenaphthylene		17	U	17	340
Anthracene		17	U	17	340
Benzo[a]anthracene		20	U	20	340
Benzo[a]pyrene		20	U	20	340
Benzo[b]fluoranthene		27	U	27	340
Benzo[ghi]perylene		16	U	16	340
Benzo[k]fluoranthene		41	U	41	340
Bis(2-chloroethoxy)methane		23	U	23	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		23	U	23	340
Bis(2-ethylhexyl) phthalate		51	J	47	340
4-Bromophenyl phenyl ether		19	U	19	340
Butyl benzyl phthalate		44	U	44	340
Carbazole		37	U	37	340
4-Chloroaniline		84	U	84	340
4-Chloro-3-methylphenol		67	U	67	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		21	U	21	340
4-Chlorophenyl phenyl ether		21	U	21	340
Chrysene		28	U	28	340
Dibenz(a,h)anthracene		19	U	19	340
Dibenzofuran		20	U	20	340
1,2-Dichlorobenzene		22	U	22	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		92	U	92	670
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		27	U	27	340
2,4-Dimethylphenol		67	U	67	340
Dimethyl phthalate		23	U	23	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	670
2,4-Dinitrophenol		340	U	340	840
2,4-Dinitrotoluene		67	U	67	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		18	U	18	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		51	U	51	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		22	U	22	340
Isophorone		17	U	17	340
2-Methylnaphthalene		19	U	19	340

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0192.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Analysis Date:	05/04/2011 2248			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		51	U	51	340
3-Nitroaniline		75	U	75	340
4-Nitroaniline		74	U	74	340
Nitrobenzene		22	U	22	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		99	U	99	670
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		21	U	21	340
Pentachlorophenol		340	U	340	670
Phenanthrene		17	U	17	340
Phenol		18	U	18	340
Pyrene		18	J	12	340
1,2,4-Trichlorobenzene		29	U	29	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	74		50 - 120
2-Fluorophenol	77		53 - 120
Nitrobenzene-d5	76		50 - 120
Phenol-d5	80		52 - 120
Terphenyl-d14	82		55 - 120
2,4,6-Tribromophenol	85		51 - 120

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-63738	Lab File ID:	K0192.D
Dilution:	1.0			Initial Weight/Volume:	30.3 g
Analysis Date:	05/04/2011 2248			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **5**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.72	140	N J
2213-23-2	Heptane, 2,4-dimethyl-	2.78	140	N J
2216-30-0	Heptane, 2,5-dimethyl-	2.90	150	N J
	Unknown	2.98	4000	N J
301-02-0	9-Octadecenamide, (Z)-	10.18	190	N J

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-63748	Initial Weight/Volume:	30.9 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/07/2011 0300			Injection Volume:	1 uL
Prep Date:	04/22/2011 1940			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.54	U	0.54	1.7
4,4'-DDE		0.24	U	0.24	1.7
4,4'-DDT		0.58	U	0.58	1.7
Aldrin		0.25	U	0.25	1.6
alpha-BHC		0.21	U	0.21	1.6
beta-BHC		0.66	U	0.66	1.6
delta-BHC		0.40	U	0.40	1.6
gamma-BHC (Lindane)		0.46	U	0.46	1.6
Heptachlor		0.21	U	0.21	1.6
Heptachlor epoxide		0.42	U	0.42	1.6
Endosulfan I		0.17	U	0.17	1.6
Endosulfan II		0.28	U	0.28	1.7
Endosulfan sulfate		0.27	U	0.27	1.7
Endrin		0.30	U	0.30	1.7
Endrin aldehyde		0.17	U	0.17	1.7
Endrin ketone		0.48	U	0.48	1.7
gamma-Chlordane		0.26	U	0.26	1.7
Methoxychlor		0.45	U	0.45	3.3
alpha-Chlordane		0.32	U	0.32	1.7
Dieldrin		0.21	U	0.21	1.7
Toxaphene		16	U	16	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	72		59 - 115
Decachlorobiphenyl	100		63 - 124

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-63748	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/07/2011 0317			Injection Volume:	1 uL
Prep Date:	04/22/2011 1940			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.55	U	0.55	1.7
4,4'-DDE		2.0		0.24	1.7
4,4'-DDT		0.60	U	0.60	1.7
Aldrin		0.25	U	0.25	1.7
alpha-BHC		0.22	U	0.22	1.7
beta-BHC		0.67	U	0.67	1.7
delta-BHC		0.41	U	0.41	1.7
gamma-BHC (Lindane)		0.47	U	0.47	1.7
Heptachlor		0.22	U	0.22	1.7
Heptachlor epoxide		0.43	U	0.43	1.7
Endosulfan I		0.18	U	0.18	1.7
Endosulfan II		0.29	U	0.29	1.7
Endosulfan sulfate		0.28	U	0.28	1.7
Endrin		0.31	U	0.31	1.7
Endrin aldehyde		0.17	U	0.17	1.7
Endrin ketone		0.50	U	0.50	1.7
gamma-Chlordane		2.5	X	0.27	1.7
Methoxychlor		0.46	U	0.46	3.3
alpha-Chlordane		1.3	J X	0.33	1.7
Dieldrin		17		0.21	1.7
Toxaphene		16	U	16	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	66		59 - 115
Decachlorobiphenyl	93		63 - 124

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-63748	Initial Weight/Volume:	32.6 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/07/2011 0334			Injection Volume:	1 uL
Prep Date:	04/22/2011 1940			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.51	U	0.51	1.6
4,4'-DDE		0.22	U	0.22	1.6
4,4'-DDT		0.55	U	0.55	1.6
Aldrin		0.24	U	0.24	1.5
alpha-BHC		0.20	U	0.20	1.5
beta-BHC		0.62	U	0.62	1.5
delta-BHC		0.38	U	0.38	1.5
gamma-BHC (Lindane)		0.43	U	0.43	1.5
Heptachlor		0.20	U	0.20	1.5
Heptachlor epoxide		0.40	U	0.40	1.5
Endosulfan I		0.16	U	0.16	1.5
Endosulfan II		0.27	U	0.27	1.6
Endosulfan sulfate		0.26	U	0.26	1.6
Endrin		0.29	U	0.29	1.6
Endrin aldehyde		0.16	U	0.16	1.6
Endrin ketone		0.46	U	0.46	1.6
gamma-Chlordane		0.25	U	0.25	1.6
Methoxychlor		0.42	U	0.42	3.1
alpha-Chlordane		0.30	U	0.30	1.6
Dieldrin		0.75	J	0.20	1.6
Toxaphene		15	U	15	150

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	69		59 - 115
Decachlorobiphenyl	93		63 - 124

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-63748	Initial Weight/Volume:	32.8 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	05/07/2011 0350			Injection Volume:	1 uL
Prep Date:	04/22/2011 1940			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		0.51	U	0.51	1.6
4,4'-DDE		0.22	U	0.22	1.6
4,4'-DDT		0.56	U	0.56	1.6
Aldrin		0.24	U	0.24	1.6
alpha-BHC		0.20	U	0.20	1.6
beta-BHC		0.63	U	0.63	1.6
delta-BHC		0.38	U	0.38	1.6
gamma-BHC (Lindane)		0.44	U	0.44	1.6
Heptachlor		0.20	U	0.20	1.6
Heptachlor epoxide		0.40	U	0.40	1.6
Endosulfan I		0.17	U	0.17	1.6
Endosulfan II		0.27	U	0.27	1.6
Endosulfan sulfate		0.26	U	0.26	1.6
Endrin		0.29	U	0.29	1.6
Endrin aldehyde		0.16	U	0.16	1.6
Endrin ketone		0.46	U	0.46	1.6
gamma-Chlordane		0.25	U	0.25	1.6
Methoxychlor		0.42	U	0.42	3.1
alpha-Chlordane		0.30	U	0.30	1.6
Dieldrin		0.20	U	0.20	1.6
Toxaphene		15	U	15	160

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	70		59 - 115
Decachlorobiphenyl	96		63 - 124

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-63760	Initial Weight/Volume:	31.7 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/29/2011 2308			Injection Volume:	1 uL
Prep Date:	04/22/2011 1948			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.6
Aroclor 1221		7.7	U	7.7	16
Aroclor 1232		1.9	U	1.9	9.6
Aroclor 1242		4.5	U	4.5	9.6
Aroclor 1248		4.5	U	4.5	9.6
Aroclor 1254		2.5	U	2.5	9.6
Aroclor 1260		2.5	U	2.5	9.6

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	91		59 - 130
Tetrachloro-m-xylene	104		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-63760	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/29/2011 2340			Injection Volume:	1 uL
Prep Date:	04/22/2011 1948			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		26		2.6	10
Aroclor 1260		9.5	J P	2.6	10

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	90		59 - 130
Tetrachloro-m-xylene	102		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-63760	Initial Weight/Volume:	30.3 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/30/2011 0115			Injection Volume:	1 uL
Prep Date:	04/22/2011 1948			Result Type:	PRIMARY

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

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	83		59 - 130
Tetrachloro-m-xylene	102		53 - 128

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-63760	Initial Weight/Volume:	33.0 g
Dilution:	1.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/30/2011 0147			Injection Volume:	1 uL
Prep Date:	04/22/2011 1948			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.6	U	2.6	9.4
Aroclor 1221		7.5	U	7.5	15
Aroclor 1232		1.9	U	1.9	9.4
Aroclor 1242		4.4	U	4.4	9.4
Aroclor 1248		4.4	U	4.4	9.4
Aroclor 1254		2.4	U	2.4	9.4
Aroclor 1260		2.4	U	2.4	9.4

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	91		59 - 130
Tetrachloro-m-xylene	107		53 - 128

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-63901	Initial Weight/Volume:	52.0 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/28/2011 1510			Injection Volume:	1 uL
Prep Date:	04/25/2011 1130			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U N	14	78
2,4-DB		3.1	J N X	2.7	78
Dalapon		1.4	U	1.4	39
Dicamba		1.4	U N	1.4	39
Dichlorprop		3.1	U	3.1	78
Dinoseb		1.4	J B N	1.4	12
MCPA		2000	U	2000	7800
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	7800

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	86		31 - 105

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid

% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-63901	Initial Weight/Volume:	50.9 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/28/2011 1616			Injection Volume:	1 uL
Prep Date:	04/25/2011 1130			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U N	14	82
2,4-DB		3.9	J	2.9	82
Dalapon		1.4	U	1.4	41
Dicamba		1.4	U N	1.4	41
Dichlorprop		3.3	U	3.3	82
Dinoseb		2.3	J B X	1.4	12
MCPA		2000	U	2000	8200
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	8200

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	61		31 - 105

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-63901	Initial Weight/Volume:	51.8 g
Dilution:	5.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/28/2011 1637			Injection Volume:	1 uL
Prep Date:	04/25/2011 1130			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		13	J D	11	98
2,4-Dichlorophenoxyacetic acid		69	U D N	69	390
2,4-DB		14	U D	14	390
Dalapon		6.9	U D	6.9	200
Dicamba		6.9	U D N	6.9	200
Dichlorprop		16	U D	16	390
Dinoseb		25	J B D X	6.9	59
MCPA		9800	U D	9800	39000
2,4,5-TP (Silvex)		6.9	U D	6.9	98
MCPP		9800	U D	9800	39000

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	27	D	31 - 105

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8151A Herbicides (GC)

Analysis Method:	8151A	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Prep Method:	8151A	Prep Batch:	280-63901	Initial Weight/Volume:	51.1 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/28/2011 1659			Injection Volume:	1 uL
Prep Date:	04/25/2011 1130			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2,4,5-T		2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid		14	U N	14	81
2,4-DB		6.7	J X	2.8	81
Dalapon		1.4	U	1.4	40
Dicamba		1.4	U N	1.4	40
Dichlorprop		5.1	J X	3.2	81
Dinoseb		3.3	J B	1.4	12
MCPA		2000	U	2000	8100
2,4,5-TP (Silvex)		1.4	U	1.4	20
MCPP		2000	U	2000	8100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCAA	73		31 - 105

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-63763	Lab File ID:	009B0901.D
Dilution:	1.0			Initial Weight/Volume:	31.1 g
Analysis Date:	05/02/2011 1735			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		1900	J	980	3900
C10-C28		1000	J	670	3900

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	80		49 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid

% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-63763	Lab File ID:	010B1001.D
Dilution:	1.0			Initial Weight/Volume:	31.5 g
Analysis Date:	05/02/2011 1802			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		21000		990	4000
C10-C28		11000		670	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	86		49 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-63763	Lab File ID:	011B1101.D
Dilution:	1.0			Initial Weight/Volume:	31.8 g
Analysis Date:	05/02/2011 1830			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		6500		960	3800
C10-C28		3400	J	650	3800

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

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

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

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Prep Method:	3550C	Prep Batch:	280-63763	Lab File ID:	012B1201.D
Dilution:	1.0			Initial Weight/Volume:	31.3 g
Analysis Date:	05/02/2011 1858			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		4500		990	4000
C10-C28		2000	J	670	4000

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	79		49 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid % Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-63754	Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	05/06/2011 1352			Injection Volume:	20 uL
Prep Date:	04/22/2011 1842			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	100
Acenaphthylene		9.1	U	9.1	100
Anthracene		3.1	U	3.1	20
Benzo[a]anthracene		3.2	U	3.2	15
Benzo[a]pyrene		6.5	U	6.5	15
Benzo[b]fluoranthene		4.3	U	4.3	15
Benzo[g,h,i]perylene		7.3	U	7.3	30
Benzo[k]fluoranthene		4.0	U	4.0	15
Chrysene		4.9	U	4.9	40
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	40
Fluorene		5.3	U	5.3	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	100
Phenanthrene		12	U	12	40
Pyrene		12	U	12	40

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	97		72 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-63754	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	05/06/2011 1633			Injection Volume:	20 uL
Prep Date:	04/22/2011 1842			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		140	X	10	100
Acenaphthylene		9.1	U	9.1	100
Anthracene		3.1	U	3.1	20
Benzo[a]anthracene		3.2	U	3.2	15
Benzo[a]pyrene		6.5	U	6.5	15
Benzo[b]fluoranthene		4.2	U	4.2	15
Benzo[g,h,i]perylene		7.3	U	7.3	30
Benzo[k]fluoranthene		4.0	U	4.0	15
Chrysene		4.9	U	4.9	40
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		13	U	13	40
Fluorene		5.3	U	5.3	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	100
Phenanthrene		12	U	12	40
Pyrene		12	U	12	40

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	95		72 - 115

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-63754	Initial Weight/Volume:	32.2 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	05/06/2011 1704			Injection Volume:	20 uL
Prep Date:	04/22/2011 1842			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		92	J X	9.5	95
Acenaphthylene		8.5	U	8.5	95
Anthracene		2.9	U	2.9	19
Benzo[a]anthracene		3.0	U	3.0	14
Benzo[a]pyrene		6.1	U	6.1	14
Benzo[b]fluoranthene		4.0	U	4.0	14
Benzo[g,h,i]perylene		6.8	U	6.8	28
Benzo[k]fluoranthene		3.7	U	3.7	14
Chrysene		4.6	U	4.6	38
Dibenzo(a,h)anthracene		10	U	10	28
Fluoranthene		12	U	12	38
Fluorene		5.0	U	5.0	28
Indeno[1,2,3-cd]pyrene		11	U	11	28
Naphthalene		11	U	11	95
Phenanthrene		11	U	11	38
Pyrene		11	U	11	38

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	100		72 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

8310 PAHs (HPLC)

Analysis Method:	8310	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Prep Method:	3550C	Prep Batch:	280-63754	Initial Weight/Volume:	31.1 g
Dilution:	1.0			Final Weight/Volume:	4000 uL
Analysis Date:	05/06/2011 1734			Injection Volume:	20 uL
Prep Date:	04/22/2011 1842			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		150	X	9.9	99
Acenaphthylene		8.9	U	8.9	99
Anthracene		3.0	U	3.0	20
Benzo[a]anthracene		3.2	U	3.2	15
Benzo[a]pyrene		19		6.4	15
Benzo[b]fluoranthene		7.1	J	4.2	15
Benzo[g,h,i]perylene		7.2	U	7.2	30
Benzo[k]fluoranthene		3.9	U	3.9	15
Chrysene		12	J	4.8	40
Dibenzo(a,h)anthracene		11	U	11	30
Fluoranthene		22	J	13	40
Fluorene		5.3	U	5.3	30
Indeno[1,2,3-cd]pyrene		12	U	12	30
Naphthalene		12	U	12	99
Phenanthrene		16	J	12	40
Pyrene		29	J	12	40

Surrogate	%Rec	Qualifier	Acceptance Limits
Terphenyl-d14 (SUR)	101		72 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid

% Moisture: 1.8

Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-64499	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0			Initial Weight/Volume:	1.17 g
Analysis Date:	04/27/2011 2101			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

DryWt Corrected: Y

Analyte	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum	4860	X	1.3	4.4
Antimony	0.33	U	0.33	0.52
Arsenic	1.7		0.57	0.87
Barium	61.0	X	0.066	0.44
Boron	0.85	U	0.85	1.7
Cadmium	0.036	U	0.036	0.17
Calcium	5200	X	12.3	43.5
Chromium	5.4	X	0.051	0.17
Iron	27400	X	3.3	4.4
Magnesium	4660	X	3.2	17.4
Manganese	344	X	0.087	0.87
Molybdenum	0.26	B	0.23	1.7
Nickel	9.2	X	0.11	3.5
Potassium	700		35.7	261
Selenium	0.75	U	0.75	0.87
Silicon	196		4.9	8.7
Silver	0.14	U	0.14	0.17
Sodium	301		51.4	104
Zinc	48.2	X	0.35	0.87

Analysis Method:	6010B	Analysis Batch:	280-64725	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	5.0			Initial Weight/Volume:	1.17 g
Analysis Date:	04/28/2011 0947			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

DryWt Corrected: Y

Analyte	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium	0.14	U	0.14	0.87
Cobalt	13.4		0.44	4.4
Copper	16.6		0.94	4.4
Lead	4.0		1.2	2.2
Vanadium	89.4		0.41	8.7

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	04/28/2011 1835			Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				

DryWt Corrected: Y

Analyte	Result (mg/Kg)	Qualifier	MDL	RL
Mercury	0.0051	U	0.0051	0.016

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-64499	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0			Initial Weight/Volume:	1.15 g
Analysis Date:	04/27/2011 2111			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4840	X	1.4	4.5
Antimony		0.34	U	0.34	0.54
Arsenic		1.3		0.60	0.90
Barium		47.9	X	0.069	0.45
Boron		0.88	U	0.88	1.8
Cadmium		0.068	B	0.037	0.18
Calcium		4300	X	12.7	45.1
Chromium		4.6	X	0.052	0.18
Iron		34300	X	3.4	4.5
Magnesium		3910	X	3.3	18.0
Manganese		268	X	0.090	0.90
Molybdenum		0.44	B	0.23	1.8
Nickel		6.0	X	0.11	3.6
Potassium		502		37.0	271
Selenium		0.78	U	0.78	0.90
Silicon		177		5.1	9.0
Silver		0.40		0.14	0.18
Sodium		312		53.2	108
Zinc		75.0	X	0.36	0.90

Analysis Method:	6010B	Analysis Batch:	280-64725	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	5.0			Initial Weight/Volume:	1.15 g
Analysis Date:	04/28/2011 0956			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.15	U	0.15	0.90
Cobalt		12.0		0.45	4.5
Copper		18.2		0.98	4.5
Lead		4.2		1.2	2.3
Vanadium		107		0.42	9.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.66 g
Analysis Date:	04/28/2011 1837			Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.044		0.0052	0.016

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-64499	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0			Initial Weight/Volume:	1.13 g
Analysis Date:	04/27/2011 2113			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4140	X	1.4	4.5
Antimony		0.34	U	0.34	0.54
Arsenic		1.2		0.59	0.90
Barium		52.4	X	0.069	0.45
Boron		0.88	U	0.88	1.8
Cadmium		0.037	U	0.037	0.18
Calcium		4880	X	12.7	45.1
Chromium		4.0	X	0.052	0.18
Iron		27500	X	3.4	4.5
Magnesium		3810	X	3.3	18.0
Manganese		317	X	0.090	0.90
Molybdenum		0.29	B	0.23	1.8
Nickel		7.4	X	0.11	3.6
Potassium		550		37.0	270
Selenium		0.78	U	0.78	0.90
Silicon		204		5.1	9.0
Silver		0.14	U	0.14	0.18
Sodium		295		53.2	108
Zinc		51.6	X	0.36	0.90

Analysis Method:	6010B	Analysis Batch:	280-64725	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	5.0			Initial Weight/Volume:	1.13 g
Analysis Date:	04/28/2011 0958			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.15	U	0.15	0.90
Cobalt		13.4		0.45	4.5
Copper		16.8		0.98	4.5
Lead		3.7		1.2	2.3
Vanadium		91.7		0.42	9.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	04/28/2011 1840			Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				

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

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-64499	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0			Initial Weight/Volume:	1.14 g
Analysis Date:	04/27/2011 2116			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4770	X	1.4	4.5
Antimony		0.34	U	0.34	0.54
Arsenic		1.6		0.60	0.90
Barium		61.3	X	0.069	0.45
Boron		0.89	U	0.89	1.8
Cadmium		0.059	B	0.037	0.18
Calcium		4920	X	12.8	45.2
Chromium		5.4	X	0.052	0.18
Iron		28600	X	3.4	4.5
Magnesium		4490	X	3.3	18.1
Manganese		389	X	0.090	0.90
Molybdenum		0.29	B	0.24	1.8
Nickel		9.2	X	0.11	3.6
Potassium		651		37.1	271
Selenium		0.78	U	0.78	0.90
Silicon		228		5.1	9.0
Silver		0.14	U	0.14	0.18
Sodium		292		53.4	109
Zinc		56.4	X	0.36	0.90

Analysis Method:	6010B	Analysis Batch:	280-64725	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	5.0			Initial Weight/Volume:	1.14 g
Analysis Date:	04/28/2011 1001			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.15	U	0.15	0.90
Cobalt		16.7		0.45	4.5
Copper		19.1		0.98	4.5
Lead		4.6		1.2	2.3
Vanadium		92.3		0.43	9.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	04/28/2011 1847			Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				

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

General Chemistry

Client Sample ID: **J1H226**

Lab Sample ID: 280-14883-1
Client Matrix: Solid
% Moisture: 1.8
Date Sampled: 04/19/2011 1050
Date Received: 04/21/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.35	U N	mg/Kg	0.35	0.73	1.0	353.2
Analysis Batch: 280-64536		Analysis Date: 04/27/2011 1338					DryWt Corrected: Y
Chloride-Soluble	1.9	U	mg/Kg	1.9	4.9	1.0	9056M
Analysis Batch: 280-63809		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y
Nitrate as N-Soluble	0.42	B C	mg/Kg	0.30	2.4	1.0	9056M
Analysis Batch: 280-63808		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y
Bromide-Soluble	0.38	U	mg/Kg	0.38	1.9	1.0	9056M
Analysis Batch: 280-63809		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y
Nitrite as N-Soluble	0.33	U	mg/Kg	0.33	2.4	1.0	9056M
Analysis Batch: 280-63808		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	4.9	1.0	9056M
Analysis Batch: 280-63808		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y
Sulfate-Soluble	6.7		mg/Kg	1.7	4.9	1.0	9056M
Analysis Batch: 280-63809		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y
Fluoride-Soluble	0.80	U	mg/Kg	0.80	4.9	1.0	9056M
Analysis Batch: 280-63809		Analysis Date: 04/23/2011 0022					DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.76		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-63801		Analysis Date: 04/22/2011 1418					DryWt Corrected: N
Percent Moisture	1.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-63625		Analysis Date: 04/22/2011 1020					DryWt Corrected: N

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

General Chemistry

Client Sample ID: **J1H227**

Lab Sample ID: 280-14883-2
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 04/19/2011 1055
Date Received: 04/21/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	91.4		mg/Kg	0.37	0.78	1.0	353.2
Analysis Batch: 280-64536	Analysis Date: 04/27/2011 1343						DryWt Corrected: Y
Chloride-Soluble	6.5		mg/Kg	2.0	5.2	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y
Nitrate as N-Soluble	78.9		mg/Kg	0.33	2.6	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y
Sulfate-Soluble	197		mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y
Fluoride-Soluble	0.85	U	mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0112						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	4.56		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-63801	Analysis Date: 04/22/2011 1431						DryWt Corrected: N
Percent Moisture	3.6		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-63625	Analysis Date: 04/22/2011 1020						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1H228**

Lab Sample ID: 280-14883-3
Client Matrix: Solid
% Moisture: 1.8

Date Sampled: 04/19/2011 1105
Date Received: 04/21/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	1.5		mg/Kg	0.35	0.73	1.0	353.2
Analysis Batch: 280-64536	Analysis Date: 04/27/2011 1344						DryWt Corrected: Y
Chloride-Soluble	1.9	U	mg/Kg	1.9	4.9	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0129						DryWt Corrected: Y
Nitrate as N-Soluble	1.1	B C	mg/Kg	0.31	2.4	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0129						DryWt Corrected: Y
Bromide-Soluble	0.38	U	mg/Kg	0.38	2.0	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0129						DryWt Corrected: Y
Nitrite as N-Soluble	0.33	U	mg/Kg	0.33	2.4	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0129						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.2	U	mg/Kg	1.2	4.9	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0129						DryWt Corrected: Y
Sulfate-Soluble	1440	D	mg/Kg	8.5	24.5	5.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0826						DryWt Corrected: Y
Fluoride-Soluble	1.4	B	mg/Kg	0.81	4.9	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0129						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	6.69		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-63801	Analysis Date: 04/22/2011 1437						DryWt Corrected: N
Percent Moisture	1.8		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-63625	Analysis Date: 04/22/2011 1020						DryWt Corrected: N

General Chemistry

Client Sample ID: **J1H229**

Lab Sample ID: 280-14883-4
Client Matrix: Solid
% Moisture: 3.0

Date Sampled: 04/19/2011 1110
Date Received: 04/21/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	1.2		mg/Kg	0.37	0.77	1.0	353.2
Analysis Batch: 280-64536	Analysis Date: 04/27/2011 1355						DryWt Corrected: Y
Chloride-Soluble	2.0	U	mg/Kg	2.0	5.2	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y
Nitrate as N-Soluble	0.92	B C	mg/Kg	0.32	2.6	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y
Bromide-Soluble	0.40	U	mg/Kg	0.40	2.1	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y
Nitrite as N-Soluble	0.35	U	mg/Kg	0.35	2.6	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y
Orthophosphate as P-Soluble	1.3	U	mg/Kg	1.3	5.2	1.0	9056M
Analysis Batch: 280-63808	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y
Sulfate-Soluble	15.9		mg/Kg	1.8	5.2	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y
Fluoride-Soluble	1.3	B	mg/Kg	0.85	5.2	1.0	9056M
Analysis Batch: 280-63809	Analysis Date: 04/23/2011 0219						DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	6.59		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-63801	Analysis Date: 04/22/2011 1440						DryWt Corrected: N
Percent Moisture	3.0		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-63625	Analysis Date: 04/22/2011 1020						DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 280-63667					
LCS 280-63667/2-A	Lab Control Sample	T	Solid	5030B	
MB 280-63667/1-A	Method Blank	T	Solid	5030B	
280-14883-1	J1H226	T	Solid	5030B	
280-14883-2	J1H227	T	Solid	5030B	
280-14883-3	J1H228	T	Solid	5030B	
280-14883-4	J1H229	T	Solid	5030B	
280-14883-4MS	Matrix Spike	T	Solid	5030B	
280-14883-4MSD	Matrix Spike Duplicate	T	Solid	5030B	
Analysis Batch:280-64074					
LCS 280-63667/2-A	Lab Control Sample	T	Solid	8260B	280-63667
MB 280-63667/1-A	Method Blank	T	Solid	8260B	280-63667
280-14883-1	J1H226	T	Solid	8260B	280-63667
280-14883-2	J1H227	T	Solid	8260B	280-63667
280-14883-3	J1H228	T	Solid	8260B	280-63667
280-14883-4	J1H229	T	Solid	8260B	280-63667
280-14883-4MS	Matrix Spike	T	Solid	8260B	280-63667
280-14883-4MSD	Matrix Spike Duplicate	T	Solid	8260B	280-63667

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-63738					
LCS 280-63738/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-63738/1-A	Method Blank	T	Solid	3550C	
280-14883-1	J1H226	T	Solid	3550C	
280-14883-2	J1H227	T	Solid	3550C	
280-14883-3	J1H228	T	Solid	3550C	
280-14883-3MS	Matrix Spike	T	Solid	3550C	
280-14883-3MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-14883-4	J1H229	T	Solid	3550C	
Analysis Batch:280-65697					
LCS 280-63738/2-A	Lab Control Sample	T	Solid	8270C	280-63738
MB 280-63738/1-A	Method Blank	T	Solid	8270C	280-63738
280-14883-1	J1H226	T	Solid	8270C	280-63738
280-14883-2	J1H227	T	Solid	8270C	280-63738
280-14883-3	J1H228	T	Solid	8270C	280-63738
280-14883-3MS	Matrix Spike	T	Solid	8270C	280-63738
280-14883-3MSD	Matrix Spike Duplicate	T	Solid	8270C	280-63738
280-14883-4	J1H229	T	Solid	8270C	280-63738

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-63748					
LCS 280-63748/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-63748/1-A	Method Blank	T	Solid	3550C	
280-14883-1	J1H226	T	Solid	3550C	
280-14883-2	J1H227	T	Solid	3550C	
280-14883-3	J1H228	T	Solid	3550C	
280-14883-4	J1H229	T	Solid	3550C	
280-14883-4MS	Matrix Spike	T	Solid	3550C	
280-14883-4MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-63760					
LCS 280-63760/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-63760/1-A	Method Blank	T	Solid	3550C	
280-14883-1	J1H226	T	Solid	3550C	
280-14883-2	J1H227	T	Solid	3550C	
280-14883-2MS	Matrix Spike	T	Solid	3550C	
280-14883-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-14883-3	J1H228	T	Solid	3550C	
280-14883-4	J1H229	T	Solid	3550C	
Prep Batch: 280-63763					
LCS 280-63763/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-63763/1-A	Method Blank	T	Solid	3550C	
280-14883-1	J1H226	T	Solid	3550C	
280-14883-2	J1H227	T	Solid	3550C	
280-14883-3	J1H228	T	Solid	3550C	
280-14883-4	J1H229	T	Solid	3550C	
280-14883-4MS	Matrix Spike	T	Solid	3550C	
280-14883-4MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-63901					
LCS 280-63901/2-A	Lab Control Sample	T	Solid	8151A	
MB 280-63901/1-A	Method Blank	T	Solid	8151A	
280-14883-1	J1H226	T	Solid	8151A	
280-14883-1MS	Matrix Spike	T	Solid	8151A	
280-14883-1MSD	Matrix Spike Duplicate	T	Solid	8151A	
280-14883-2	J1H227	T	Solid	8151A	
280-14883-3	J1H228	T	Solid	8151A	
280-14883-4	J1H229	T	Solid	8151A	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-64779					
LCS 280-63901/2-A	Lab Control Sample	T	Solid	8151A	280-63901
MB 280-63901/1-A	Method Blank	T	Solid	8151A	280-63901
280-14883-1	J1H226	T	Solid	8151A	280-63901
280-14883-1MS	Matrix Spike	T	Solid	8151A	280-63901
280-14883-1MSD	Matrix Spike Duplicate	T	Solid	8151A	280-63901
280-14883-2	J1H227	T	Solid	8151A	280-63901
280-14883-3	J1H228	T	Solid	8151A	280-63901
280-14883-4	J1H229	T	Solid	8151A	280-63901
Analysis Batch:280-65261					
LCS 280-63760/2-A	Lab Control Sample	T	Solid	8082	280-63760
MB 280-63760/1-A	Method Blank	T	Solid	8082	280-63760
280-14883-1	J1H226	T	Solid	8082	280-63760
280-14883-2	J1H227	T	Solid	8082	280-63760
280-14883-2MS	Matrix Spike	T	Solid	8082	280-63760
280-14883-2MSD	Matrix Spike Duplicate	T	Solid	8082	280-63760
280-14883-3	J1H228	T	Solid	8082	280-63760
280-14883-4	J1H229	T	Solid	8082	280-63760
Analysis Batch:280-65311					
LCS 280-63763/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-63763
MB 280-63763/1-A	Method Blank	T	Solid	NWTPH-Dx	280-63763
280-14883-1	J1H226	T	Solid	NWTPH-Dx	280-63763
280-14883-2	J1H227	T	Solid	NWTPH-Dx	280-63763
280-14883-3	J1H228	T	Solid	NWTPH-Dx	280-63763
280-14883-4	J1H229	T	Solid	NWTPH-Dx	280-63763
280-14883-4MS	Matrix Spike	T	Solid	NWTPH-Dx	280-63763
280-14883-4MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-63763
Analysis Batch:280-66281					
LCS 280-63748/2-A	Lab Control Sample	T	Solid	8081A	280-63748
MB 280-63748/1-A	Method Blank	T	Solid	8081A	280-63748
280-14883-1	J1H226	T	Solid	8081A	280-63748
280-14883-2	J1H227	T	Solid	8081A	280-63748
280-14883-3	J1H228	T	Solid	8081A	280-63748
280-14883-4	J1H229	T	Solid	8081A	280-63748
280-14883-4MS	Matrix Spike	T	Solid	8081A	280-63748
280-14883-4MSD	Matrix Spike Duplicate	T	Solid	8081A	280-63748

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-63706					
LCS 280-63706/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-63706/1-A	Method Blank	T	Solid	3050B	
280-14883-1	J1H226	T	Solid	3050B	
280-14883-1DU	Duplicate	T	Solid	3050B	
280-14883-1MS	Matrix Spike	T	Solid	3050B	
280-14883-2	J1H227	T	Solid	3050B	
280-14883-3	J1H228	T	Solid	3050B	
280-14883-4	J1H229	T	Solid	3050B	
Prep Batch: 280-63745					
LCS 280-63745/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-63745/1-A	Method Blank	T	Solid	7471A	
280-14883-1	J1H226	T	Solid	7471A	
280-14883-2	J1H227	T	Solid	7471A	
280-14883-3	J1H228	T	Solid	7471A	
280-14883-3DU	Duplicate	T	Solid	7471A	
280-14883-3MS	Matrix Spike	T	Solid	7471A	
280-14883-4	J1H229	T	Solid	7471A	
Analysis Batch:280-64499					
LCS 280-63706/2-A	Lab Control Sample	T	Solid	6010B	280-63706
MB 280-63706/1-A	Method Blank	T	Solid	6010B	280-63706
280-14883-1	J1H226	T	Solid	6010B	280-63706
280-14883-1DU	Duplicate	T	Solid	6010B	280-63706
280-14883-1MS	Matrix Spike	T	Solid	6010B	280-63706
280-14883-2	J1H227	T	Solid	6010B	280-63706
280-14883-3	J1H228	T	Solid	6010B	280-63706
280-14883-4	J1H229	T	Solid	6010B	280-63706
Analysis Batch:280-64725					
LCS 280-63706/2-A	Lab Control Sample	T	Solid	6010B	280-63706
MB 280-63706/1-A	Method Blank	T	Solid	6010B	280-63706
280-14883-1	J1H226	T	Solid	6010B	280-63706
280-14883-1DU	Duplicate	T	Solid	6010B	280-63706
280-14883-1MS	Matrix Spike	T	Solid	6010B	280-63706
280-14883-2	J1H227	T	Solid	6010B	280-63706
280-14883-3	J1H228	T	Solid	6010B	280-63706
280-14883-4	J1H229	T	Solid	6010B	280-63706

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-64749					
LCS 280-63745/2-A	Lab Control Sample	T	Solid	7471A	280-63745
MB 280-63745/1-A	Method Blank	T	Solid	7471A	280-63745
280-14883-1	J1H226	T	Solid	7471A	280-63745
280-14883-2	J1H227	T	Solid	7471A	280-63745
280-14883-3	J1H228	T	Solid	7471A	280-63745
280-14883-3DU	Duplicate	T	Solid	7471A	280-63745
280-14883-3MS	Matrix Spike	T	Solid	7471A	280-63745
280-14883-4	J1H229	T	Solid	7471A	280-63745

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-63625					
280-14883-1	J1H226	T	Solid	D-2216	
280-14883-1DU	Duplicate	T	Solid	D-2216	
280-14883-2	J1H227	T	Solid	D-2216	
280-14883-3	J1H228	T	Solid	D-2216	
280-14883-4	J1H229	T	Solid	D-2216	
Prep Batch: 280-63629					
280-14883-1	J1H226	S	Solid	DI Leach	
280-14883-1DU	Duplicate	S	Solid	DI Leach	
280-14883-2	J1H227	S	Solid	DI Leach	
280-14883-3	J1H228	S	Solid	DI Leach	
280-14883-4	J1H229	S	Solid	DI Leach	
Prep Batch: 280-63713					
LCS 280-63713/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-63713/1-A	Method Blank	S	Solid	DI Leach	
280-14883-1	J1H226	S	Solid	DI Leach	
280-14883-1DU	Duplicate	S	Solid	DI Leach	
280-14883-1MS	Matrix Spike	S	Solid	DI Leach	
280-14883-2	J1H227	S	Solid	DI Leach	
280-14883-3	J1H228	S	Solid	DI Leach	
280-14883-4	J1H229	S	Solid	DI Leach	
Prep Batch: 280-63723					
LCS 280-63723/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-63723/1-A	Method Blank	S	Solid	DI Leach	
280-14883-1	J1H226	S	Solid	DI Leach	
280-14883-1DU	Duplicate	S	Solid	DI Leach	
280-14883-1MS	Matrix Spike	S	Solid	DI Leach	
280-14883-2	J1H227	S	Solid	DI Leach	
280-14883-3	J1H228	S	Solid	DI Leach	
280-14883-4	J1H229	S	Solid	DI Leach	
Analysis Batch:280-63801					
LCS 280-63801/4	Lab Control Sample	T	Water	9045C	
LCSD 280-63801/5	Lab Control Sample Duplicate	T	Water	9045C	
280-14883-1	J1H226	S	Solid	9045C	
280-14883-1DU	Duplicate	S	Solid	9045C	
280-14883-2	J1H227	S	Solid	9045C	
280-14883-3	J1H228	S	Solid	9045C	
280-14883-4	J1H229	S	Solid	9045C	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-63808					
LCS 280-63713/2-A	Lab Control Sample	S	Solid	9056M	
MB 280-63713/1-A	Method Blank	S	Solid	9056M	
280-14883-1	J1H226	S	Solid	9056M	
280-14883-1DU	Duplicate	S	Solid	9056M	
280-14883-1MS	Matrix Spike	S	Solid	9056M	
280-14883-2	J1H227	S	Solid	9056M	
280-14883-3	J1H228	S	Solid	9056M	
280-14883-4	J1H229	S	Solid	9056M	
Analysis Batch:280-63809					
LCS 280-63713/2-A	Lab Control Sample	S	Solid	9056M	
MB 280-63713/1-A	Method Blank	S	Solid	9056M	
280-14883-1	J1H226	S	Solid	9056M	
280-14883-1DU	Duplicate	S	Solid	9056M	
280-14883-1MS	Matrix Spike	S	Solid	9056M	
280-14883-2	J1H227	S	Solid	9056M	
280-14883-3	J1H228	S	Solid	9056M	
280-14883-4	J1H229	S	Solid	9056M	
Analysis Batch:280-64536					
LCS 280-63723/2-A	Lab Control Sample	S	Solid	353.2	
MB 280-63723/1-A	Method Blank	S	Solid	353.2	
280-14883-1	J1H226	S	Solid	353.2	
280-14883-1DU	Duplicate	S	Solid	353.2	
280-14883-1MS	Matrix Spike	S	Solid	353.2	
280-14883-2	J1H227	S	Solid	353.2	
280-14883-3	J1H228	S	Solid	353.2	
280-14883-4	J1H229	S	Solid	353.2	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 280-63754					
LCS 280-63754/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-63754/1-A	Method Blank	T	Solid	3550C	
280-14883-1	J1H226	T	Solid	3550C	
280-14883-1MS	Matrix Spike	T	Solid	3550C	
280-14883-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-14883-2	J1H227	T	Solid	3550C	
280-14883-3	J1H228	T	Solid	3550C	
280-14883-4	J1H229	T	Solid	3550C	
Analysis Batch:280-65940					
LCS 280-63754/2-A	Lab Control Sample	T	Solid	8310	280-63754
MB 280-63754/1-A	Method Blank	T	Solid	8310	280-63754
280-14883-1	J1H226	T	Solid	8310	280-63754
280-14883-1MS	Matrix Spike	T	Solid	8310	280-63754
280-14883-1MSD	Matrix Spike Duplicate	T	Solid	8310	280-63754
280-14883-2	J1H227	T	Solid	8310	280-63754
280-14883-3	J1H228	T	Solid	8310	280-63754
280-14883-4	J1H229	T	Solid	8310	280-63754

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63667

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 280-63667/1-A	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-63667	Lab File ID:	J6136.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.06 g
Analysis Date:	04/22/2011 1159	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 0600				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acetone	5.3	U	5.3	20
Benzene	0.46	U	0.46	4.9
Bromodichloromethane	0.22	U	0.22	4.9
Bromoform	0.23	U	0.23	4.9
Bromomethane	0.49	U	0.49	9.9
2-Butanone (MEK)	1.8	U	1.8	9.9
Carbon disulfide	0.42	U	0.42	4.9
Carbon tetrachloride	0.62	U	0.62	4.9
Chlorobenzene	0.53	U	0.53	4.9
Dibromochloromethane	0.56	U	0.56	4.9
Chloroethane	0.88	U	0.88	9.9
Chloroform	0.29	U	0.29	4.9
Chloromethane	0.76	U	0.76	9.9
1,3-Dichlorobenzene	0.47	U	0.47	4.9
1,1-Dichloroethane	0.21	U	0.21	4.9
1,2-Dichloroethane	0.69	U	0.69	4.9
trans-1,2-Dichloroethene	0.39	U	0.39	2.5
1,1-Dichloroethene	0.58	U	0.58	4.9
1,2-Dichloroethene, Total	0.39	U	0.39	4.9
1,2-Dichloropropane	0.54	U	0.54	4.9
cis-1,3-Dichloropropene	1.3	U	1.3	4.9
trans-1,3-Dichloropropene	0.66	U	0.66	4.9
Ethylbenzene	0.66	U	0.66	4.9
2-Hexanone	4.8	U	4.8	20
Methylene Chloride	0.74	U	0.74	4.9
4-Methyl-2-pentanone (MIBK)	4.3	U	4.3	9.9
Styrene	0.62	U	0.62	4.9
1,1,2,2-Tetrachloroethane	0.60	U	0.60	4.9
Tetrachloroethene	0.58	U	0.58	4.9
Toluene	0.68	U	0.68	4.9
1,1,1-Trichloroethane	0.51	U	0.51	4.9
1,1,2-Trichloroethane	0.87	U	0.87	4.9
Trichloroethene	0.23	U	0.23	4.9
Vinyl chloride	1.3	U	1.3	4.9
Xylenes, Total	0.60	U	0.60	4.9

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110	58 - 140
Toluene-d8 (Surr)	105	80 - 126
4-Bromofluorobenzene (Surr)	99	76 - 127
Dibromofluoromethane (Surr)	109	75 - 121

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank TICs- Batch: 280-63667

Cas Number	Analyte	RT	Est. Result	Qual
87-61-6	1,2,3-Trichlorobenzene	15.91	0.947	J N J
120-82-1	1,2,4-Trichlorobenzene	15.32	0.763	J N J
91-20-3	Naphthalene	15.59	0.742	J N J
	Unknown	16.05	13.4	N J

Lab Control Sample - Batch: 280-63667

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 280-63667/2-A	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-63667	Lab File ID:	J6131.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/22/2011 0925	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 0600				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	50.0	52.9	106	76 - 120	
Bromodichloromethane	50.0	53.5	107	74 - 125	
Carbon tetrachloride	50.0	54.7	109	69 - 147	
Chlorobenzene	50.0	51.5	103	74 - 120	
Chloroform	50.0	51.8	104	77 - 125	
1,3-Dichlorobenzene	50.0	54.8	110	74 - 120	
1,1-Dichloroethane	50.0	49.1	98	74 - 120	
trans-1,2-Dichloroethene	50.0	49.0	98	80 - 127	
1,1-Dichloroethene	50.0	52.9	106	77 - 143	
1,2-Dichloropropane	50.0	51.4	103	74 - 120	
Ethylbenzene	50.0	51.9	104	78 - 120	
Methylene Chloride	50.0	51.4	103	76 - 137	
Tetrachloroethene	50.0	53.1	106	71 - 120	
Toluene	50.0	52.0	104	72 - 120	
1,1,1-Trichloroethane	50.0	53.4	107	67 - 143	
Trichloroethene	50.0	53.7	107	78 - 120	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107	58 - 140
Toluene-d8 (Surr)	108	80 - 126
4-Bromofluorobenzene (Surr)	97	76 - 127
Dibromofluoromethane (Surr)	103	75 - 121

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63667

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	280-14883-4	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-63667	Lab File ID:	J6150.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.400 g
Analysis Date:	04/22/2011 1726			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1304				
Leach Date:	N/A				

MSD Lab Sample ID:	280-14883-4	Analysis Batch:	280-64074	Instrument ID:	MSV_J
Client Matrix:	Solid	Prep Batch:	280-63667	Lab File ID:	J6151.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5.909 g
Analysis Date:	04/22/2011 1749			Final Weight/Volume:	5 mL
Prep Date:	04/22/2011 1304				
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	93	91	76 - 120	11	20		
Bromodichloromethane	101	102	74 - 125	8	20		
Carbon tetrachloride	105	103	69 - 147	11	20		
Chlorobenzene	98	91	74 - 120	16	20		
Chloroform	95	95	77 - 125	10	20		
1,3-Dichlorobenzene	94	84	74 - 120	19	20		
1,1-Dichloroethane	88	85	74 - 120	13	20		
trans-1,2-Dichloroethene	86	84	80 - 127	11	20		
1,1-Dichloroethene	92	91	77 - 143	9	20		
1,2-Dichloropropane	90	91	74 - 120	7	20		
Ethylbenzene	95	88	78 - 120	17	20		
Methylene Chloride	89	89	76 - 137	8	21		
Tetrachloroethene	99	93	71 - 120	15	20		
Toluene	96	90	72 - 120	15	20		
1,1,1-Trichloroethane	102	100	67 - 143	11	20		
Trichloroethene	97	95	78 - 120	11	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	113	113	58 - 140
Toluene-d8 (Surr)	110	108	80 - 126
4-Bromofluorobenzene (Surr)	102	99	76 - 127
Dibromofluoromethane (Surr)	102	100	75 - 121

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63738

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-63738/1-A	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-63738	Lab File ID:	K0170.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	05/04/2011 1525	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.7	U	9.7	310
Acenaphthylene	16	U	16	310
Anthracene	16	U	16	310
Benzo[a]anthracene	19	U	19	310
Benzo[a]pyrene	19	U	19	310
Benzo[b]fluoranthene	25	U	25	310
Benzo[ghi]perylene	15	U	15	310
Benzo[k]fluoranthene	38	U	38	310
Bis(2-chloroethoxy)methane	22	U	22	310
Bis(2-chloroethyl)ether	16	U	16	310
bis (2-chloroisopropyl) ether	22	U	22	310
Bis(2-ethylhexyl) phthalate	43	U	43	310
4-Bromophenyl phenyl ether	18	U	18	310
Butyl benzyl phthalate	40	U	40	310
Carbazole	34	U	34	310
4-Chloroaniline	77	U	77	310
4-Chloro-3-methylphenol	62	U	62	310
2-Chloronaphthalene	9.4	U	9.4	310
2-Chlorophenol	20	U	20	310
4-Chlorophenyl phenyl ether	20	U	20	310
Chrysene	25	U	25	310
Dibenz(a,h)anthracene	18	U	18	310
Dibenzofuran	19	U	19	310
1,2-Dichlorobenzene	21	U	21	310
1,3-Dichlorobenzene	11	U	11	310
1,4-Dichlorobenzene	13	U	13	310
3,3'-Dichlorobenzidine	84	U	84	620
2,4-Dichlorophenol	9.4	U	9.4	310
Diethyl phthalate	24	U	24	310
2,4-Dimethylphenol	62	U	62	310
Dimethyl phthalate	22	U	22	310
Di-n-butyl phthalate	27	U	27	310
4,6-Dinitro-2-methylphenol	310	U	310	620
2,4-Dinitrophenol	310	U	310	770
2,4-Dinitrotoluene	62	U	62	310
2,6-Dinitrotoluene	26	U	26	310
Di-n-octyl phthalate	14	U	14	310
Fluoranthene	34	U	34	310
Fluorene	17	U	17	310
Hexachlorobenzene	27	U	27	310
Hexachlorobutadiene	9.4	U	9.4	310
Hexachlorocyclopentadiene	47	U	47	310
Hexachloroethane	20	U	20	310
Indeno[1,2,3-cd]pyrene	21	U	21	310
Isophorone	16	U	16	310

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63738

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-63738/1-A	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-63738	Lab File ID:	K0170.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	05/04/2011 1525	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	18	U	18	310
2-Methylphenol	12	U	12	310
3 & 4 Methylphenol	31	U	31	310
Naphthalene	29	U	29	310
2-Nitroaniline	47	U	47	310
3-Nitroaniline	68	U	68	310
4-Nitroaniline	68	U	68	310
Nitrobenzene	21	U	21	310
2-Nitrophenol	9.4	U	9.4	310
4-Nitrophenol	91	U	91	620
N-Nitrosodi-n-propylamine	29	U	29	310
N-Nitrosodiphenylamine	20	U	20	310
Pentachlorophenol	310	U	310	620
Phenanthrene	16	U	16	310
Phenol	17	U	17	310
Pyrene	11	U	11	310
1,2,4-Trichlorobenzene	26	U	26	310
2,4,5-Trichlorophenol	9.4	U	9.4	310
2,4,6-Trichlorophenol	9.4	U	9.4	310

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	77	50 - 120
2-Fluorophenol	81	53 - 120
Nitrobenzene-d5	79	50 - 120
Phenol-d5	84	52 - 120
Terphenyl-d14	82	55 - 120
2,4,6-Tribromophenol	82	51 - 120

Method Blank TICs- Batch: 280-63738

Cas Number	Analyte	RT	Est. Result	Qual
2213-23-2	Heptane, 2,4-dimethyl-	2.78	143	N J
2216-30-0	Heptane, 2,5-dimethyl-	2.90	154	N J
	Unknown	2.72	134	N J
	Unknown	2.98	3260	N J

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Control Sample - Batch: 280-63738

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-63738/2-A	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-63738	Lab File ID:	K0171.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	05/04/2011 1545	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2540	1940	76	52 - 120	
Anthracene	2540	2090	82	57 - 120	
Carbazole	2540	2080	82	54 - 120	
4-Chloro-3-methylphenol	2540	2090	82	57 - 120	
2-Chlorophenol	2540	2010	79	53 - 120	
1,4-Dichlorobenzene	2540	1820	72	46 - 120	
2,4-Dinitrotoluene	2540	2210	87	53 - 120	
2-Methylnaphthalene	2540	1920	76	55 - 120	
2-Methylphenol	2540	1960	77	51 - 120	
4-Nitrophenol	2540	2030	80	41 - 120	
N-Nitrosodi-n-propylamine	2540	1900	75	51 - 120	
Pentachlorophenol	2540	2040	80	30 - 120	
Phenol	2540	2000	79	54 - 120	
Pyrene	2540	2070	81	50 - 120	
1,2,4-Trichlorobenzene	2540	1770	70	50 - 120	
2,4,6-Trichlorophenol	2540	2160	85	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	76	50 - 120
2-Fluorophenol	75	53 - 120
Nitrobenzene-d5	74	50 - 120
Phenol-d5	78	52 - 120
Terphenyl-d14	81	55 - 120
2,4,6-Tribromophenol	88	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63738

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-14883-3	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-63738	Lab File ID:	K0190.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/04/2011 2208			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14883-3	Analysis Batch:	280-65697	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-63738	Lab File ID:	K0191.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.0 g
Analysis Date:	05/04/2011 2228			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 1837			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	78	79	52 - 120	3	30		
Anthracene	83	86	57 - 120	5	30		
Carbazole	82	88	54 - 120	8	30		
4-Chloro-3-methylphenol	85	85	57 - 120	2	30		
2-Chlorophenol	80	80	53 - 120	2	30		
1,4-Dichlorobenzene	71	71	46 - 120	3	30		
2,4-Dinitrotoluene	88	92	53 - 120	7	30		
2-Methylnaphthalene	76	77	55 - 120	3	30		
2-Methylphenol	78	79	51 - 120	3	30		
4-Nitrophenol	78	84	41 - 120	9	30		
N-Nitrosodi-n-propylamine	74	75	51 - 120	4	30		
Pentachlorophenol	76	82	30 - 120	10	30		
Phenol	79	79	54 - 120	2	30		
Pyrene	86	89	50 - 120	5	38		
1,2,4-Trichlorobenzene	71	72	50 - 120	3	30		
2,4,6-Trichlorophenol	86	87	50 - 120	4	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	76	77	50 - 120
2-Fluorophenol	75	77	53 - 120
Nitrobenzene-d5	75	76	50 - 120
Phenol-d5	79	80	52 - 120
Terphenyl-d14	84	88	55 - 120
2,4,6-Tribromophenol	86	90	51 - 120

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63748

Method: 8081A
Preparation: 3550C

Lab Sample ID:	MB 280-63748/1-A	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-63748	Lab File ID:	039F3901.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.8 g
Analysis Date:	05/07/2011 0440	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/22/2011 1940			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.52	U	0.52	1.6
4,4'-DDE	0.22	U	0.22	1.6
4,4'-DDT	0.56	U	0.56	1.6
Aldrin	0.24	U	0.24	1.6
alpha-BHC	0.20	U	0.20	1.6
beta-BHC	0.63	U	0.63	1.6
delta-BHC	0.38	U	0.38	1.6
gamma-BHC (Lindane)	0.44	U	0.44	1.6
Heptachlor	0.20	U	0.20	1.6
Heptachlor epoxide	0.40	U	0.40	1.6
Endosulfan I	0.17	U	0.17	1.6
Endosulfan II	0.27	U	0.27	1.6
Endosulfan sulfate	0.26	U	0.26	1.6
Endrin	0.29	U	0.29	1.6
Endrin aldehyde	0.16	U	0.16	1.6
Endrin ketone	0.46	U	0.46	1.6
gamma-Chlordane	0.25	U	0.25	1.6
Methoxychlor	0.42	U	0.42	3.1
alpha-Chlordane	0.30	U	0.30	1.6
Dieldrin	0.20	U	0.20	1.6
Toxaphene	15	U	15	160

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	67	59 - 115
Decachlorobiphenyl	89	63 - 124

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Control Sample - Batch: 280-63748

Method: 8081A
Preparation: 3550C

Lab Sample ID:	LCS 280-63748/2-A	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-63748	Lab File ID:	032F3201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/07/2011 0244	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/22/2011 1940			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	16.3	10.4	63	57 - 118	
4,4'-DDE	16.3	11.2	69	61 - 115	
4,4'-DDT	16.3	11.7	72	53 - 125	
Aldrin	16.3	13.3	82	60 - 115	
alpha-BHC	16.3	13.2	81	54 - 115	
beta-BHC	16.3	14.2	87	58 - 115	
delta-BHC	16.3	15.0	92	62 - 115	
gamma-BHC (Lindane)	16.3	13.6	83	59 - 115	
Heptachlor	16.3	14.5	89	61 - 115	
Heptachlor epoxide	16.3	14.5	89	62 - 112	
Endosulfan I	16.3	13.9	85	55 - 115	
Endosulfan II	16.3	15.9	97	60 - 115	
Endosulfan sulfate	16.3	15.2	93	58 - 118	
Endrin	16.3	17.6	108	61 - 121	
Endrin aldehyde	16.3	12.4	76	54 - 115	
Endrin ketone	16.3	14.2	87	61 - 118	
gamma-Chlordane	16.3	14.1	86	60 - 115	
Methoxychlor	16.3	13.4	82	52 - 123	
alpha-Chlordane	16.3	14.0	86	60 - 115	
Dieldrin	16.3	15.7	96	63 - 117	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	72	59 - 115
Decachlorobiphenyl	101	63 - 124

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63748

Method: 8081A
Preparation: 3550C

MS Lab Sample ID:	280-14883-4	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-63748	Lab File ID:	037F3701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	05/07/2011 0407			Final Weight/Volume:	10000 uL
Prep Date:	04/22/2011 1940			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14883-4	Analysis Batch:	280-66281	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-63748	Lab File ID:	038F3801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.6 g
Analysis Date:	05/07/2011 0423			Final Weight/Volume:	10000 uL
Prep Date:	04/22/2011 1940			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	62	65	57 - 118	5	20		
4,4'-DDE	63	65	61 - 115	3	15		
4,4'-DDT	72	74	53 - 125	3	29		
Aldrin	80	85	60 - 115	5	50		
alpha-BHC	78	85	54 - 115	7	17		
beta-BHC	82	87	58 - 115	5	17		
delta-BHC	89	95	62 - 115	5	19		
gamma-BHC (Lindane)	81	86	59 - 115	5	24		
Heptachlor	84	88	61 - 115	6	18		
Heptachlor epoxide	85	90	62 - 112	4	18		
Endosulfan I	82	85	55 - 115	4	26		
Endosulfan II	92	98	60 - 115	5	20		
Endosulfan sulfate	86	92	58 - 118	7	22		
Endrin	107	112	61 - 121	4	30		
Endrin aldehyde	79	85	54 - 115	6	29		
Endrin ketone	84	89	61 - 118	5	20		
gamma-Chlordane	87	89	60 - 115	5	21		
Methoxychlor	74	77	52 - 123	3	23		
alpha-Chlordane	81	83	60 - 115	5	18		
Dieldrin	95	97	63 - 117	4	25		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	67	76	59 - 115
Decachlorobiphenyl	96	99	63 - 124

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63760

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-63760/1-A	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-63760	Lab File ID:	027F2701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.9 g
Analysis Date:	04/29/2011 2205	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/22/2011 1948			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.5	U	2.5	9.1
Aroclor 1221	7.3	U	7.3	15
Aroclor 1232	1.8	U	1.8	9.1
Aroclor 1242	4.2	U	4.2	9.1
Aroclor 1248	4.2	U	4.2	9.1
Aroclor 1254	2.4	U	2.4	9.1
Aroclor 1260	2.4	U	2.4	9.1

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	99	59 - 130
Tetrachloro-m-xylene	108	53 - 128

Lab Control Sample - Batch: 280-63760

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-63760/2-A	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-63760	Lab File ID:	028F2801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.4 g
Analysis Date:	04/29/2011 2236	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/22/2011 1948			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	31.8	38.2	120	54 - 132	
Aroclor 1260	31.8	35.2	110	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	99	59 - 130
Tetrachloro-m-xylene	108	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63760

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-14883-2	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-63760	Lab File ID:	031F3101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.5 g
Analysis Date:	04/30/2011 0011			Final Weight/Volume:	5000 uL
Prep Date:	04/22/2011 1948			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14883-2	Analysis Batch:	280-65261	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-63760	Lab File ID:	032F3201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.4 g
Analysis Date:	04/30/2011 0043			Final Weight/Volume:	5000 uL
Prep Date:	04/22/2011 1948			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	95	100	54 - 132	5	26		
Aroclor 1260	104	101	62 - 129	2	26		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Decachlorobiphenyl	95	94	59 - 130
Tetrachloro-m-xylene	102	103	53 - 128

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63901

Method: 8151A
Preparation: 8151A

Lab Sample ID:	MB 280-63901/1-A	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-63901	Lab File ID:	018B1801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.5 g
Analysis Date:	04/28/2011 1721	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/25/2011 1130			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
2,4,5-T	2.3	U	2.3	20
2,4-Dichlorophenoxyacetic acid	14	U	14	79
2,4-DB	2.8	U	2.8	79
Dalapon	1.4	U	1.4	40
Dicamba	1.4	U	1.4	40
Dichlorprop	3.2	U	3.2	79
Dinoseb	1.42	J	1.4	12
MCPA	2000	U	2000	7900
2,4,5-TP (Silvex)	1.4	U	1.4	20
MCPP	2000	U	2000	7900

Surrogate	% Rec	Acceptance Limits
DCAA	90	31 - 105

Lab Control Sample - Batch: 280-63901

Method: 8151A
Preparation: 8151A

Lab Sample ID:	LCS 280-63901/2-A	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-63901	Lab File ID:	011B1101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.4 g
Analysis Date:	04/28/2011 1448	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/25/2011 1130			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4,5-T	95.2	88.0	92	24 - 98	
2,4-Dichlorophenoxyacetic acid	91.3	104	113	32 - 97	N
2,4-DB	99.2	87.5	88	37 - 119	
Dalapon	103	83.7	81	11 - 87	
Dicamba	91.3	83.1	91	11 - 87	N
Dichlorprop	91.3	75.3	83	35 - 115	J
Dinoseb	91.3	9.91	11	5 - 166	J
MCPA	9250	8590	93	37 - 115	
2,4,5-TP (Silvex)	91.3	85.5	94	53 - 134	
MCPP	9260	9750	105	48 - 132	

Surrogate	% Rec	Acceptance Limits
DCAA	84	31 - 105

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63901

Method: 8151A
Preparation: 8151A

MS Lab Sample ID:	280-14883-1	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-63901	Lab File ID:	013B1301.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.9 g
Analysis Date:	04/28/2011 1532			Final Weight/Volume:	10000 uL
Prep Date:	04/25/2011 1130			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14883-1	Analysis Batch:	280-64779	Instrument ID:	GCS_M
Client Matrix:	Solid	Prep Batch:	280-63901	Lab File ID:	014B1401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	51.2 g
Analysis Date:	04/28/2011 1554			Final Weight/Volume:	10000 uL
Prep Date:	04/25/2011 1130			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4,5-T	61	90	24 - 98	38	40		
2,4-Dichlorophenoxyacetic acid	73	109	32 - 97	39	40	J	N
2,4-DB	8	43	37 - 119	108	50	J N	J *
Dalapon	51	78	11 - 87	42	50		
Dicamba	63	91	11 - 87	36	50		N
Dichlorprop	56	89	35 - 115	45	50	J	
Dinoseb	-0.5	0.4	5 - 166	15	50	J N	J N
MCPA	58	88	37 - 115	39	50	J	
2,4,5-TP (Silvex)	59	90	53 - 134	41	40		*
MCPP	53	88	48 - 132	49	50	J	

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
DCAA	30	*	75	31 - 105

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63763

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-63763/1-A	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-63763	Lab File ID:	007B0701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	05/02/2011 1639	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	990	U	990	4000
C10-C28	670	U	670	4000

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	78	49 - 115

Lab Control Sample - Batch: 280-63763

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	LCS 280-63763/2-A	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-63763	Lab File ID:	008B0801.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	05/02/2011 1707	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
C10-C36	64500	62000	96	57 - 115	
C10-C28	64500	62000	96	53 - 115	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	85	49 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63763

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID:	280-14883-4	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-63763	Lab File ID:	013B1301.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	05/02/2011 1926			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-14883-4	Analysis Batch:	280-65311	Instrument ID:	GCS_U
Client Matrix:	Solid	Prep Batch:	280-63763	Lab File ID:	014B1401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.9 g
Analysis Date:	05/02/2011 1953			Final Weight/Volume:	1000 uL
Prep Date:	04/22/2011 2145			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
C10-C36	102	95	57 - 115	15	23		
C10-C28	101	93	56 - 115	17	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	81	79	49 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63754

Method: 8310
Preparation: 3550C

Lab Sample ID:	MB 280-63754/1-A	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-63754	Lab File ID:	G0506008.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	05/06/2011 1251	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	04/22/2011 1842			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.6	U	9.6	96
Acenaphthylene	8.7	U	8.7	96
Anthracene	2.9	U	2.9	19
Benzo[a]anthracene	3.1	U	3.1	14
Benzo[a]pyrene	6.2	U	6.2	14
Benzo[b]fluoranthene	4.0	U	4.0	14
Benzo[g,h,i]perylene	6.9	U	6.9	29
Benzo[k]fluoranthene	3.8	U	3.8	14
Chrysene	4.7	U	4.7	38
Dibenzo(a,h)anthracene	11	U	11	29
Fluoranthene	13	U	13	38
Fluorene	5.1	U	5.1	29
Indeno[1,2,3-cd]pyrene	12	U	12	29
Naphthalene	12	U	12	96
Phenanthrene	12	U	12	38
Pyrene	12	U	12	38

Surrogate	% Rec	Acceptance Limits
Terphenyl-d14 (SUR)	95	72 - 115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Control Sample - Batch: 280-63754

Method: 8310
Preparation: 3550C

Lab Sample ID:	LCS 280-63754/2-A	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-63754	Lab File ID:	G0506009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.1 g
Analysis Date:	05/06/2011 1321	Units:	ug/Kg	Final Weight/Volume:	4000 uL
Prep Date:	04/22/2011 1842			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1930	2060	107	72 - 115	
Acenaphthylene	1930	1880	98	60 - 115	
Anthracene	1930	1730	90	61 - 115	
Benzo[a]anthracene	1930	2130	111	76 - 115	
Benzo[a]pyrene	1930	1740	90	69 - 115	
Benzo[b]fluoranthene	1930	2080	108	81 - 115	
Benzo[g,h,i]perylene	1930	2000	104	71 - 115	
Benzo[k]fluoranthene	1930	1920	99	85 - 115	
Chrysene	1930	1980	103	70 - 115	
Dibenzo(a,h)anthracene	1930	1990	103	79 - 115	
Fluoranthene	1930	1930	100	67 - 115	
Fluorene	1930	1910	99	72 - 115	
Indeno[1,2,3-cd]pyrene	1930	2150	111	76 - 115	
Naphthalene	1930	1930	100	77 - 115	
Phenanthrene	1930	1950	101	79 - 115	
Pyrene	1930	1940	100	77 - 115	

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

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-63754

Method: 8310
Preparation: 3550C

MS Lab Sample ID:	280-14883-1	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-63754	Lab File ID:	G0506011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.0 g
Analysis Date:	05/06/2011 1422			Final Weight/Volume:	4000 uL
Prep Date:	04/22/2011 1842			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-14883-1	Analysis Batch:	280-65940	Instrument ID:	CHHPLC_G
Client Matrix:	Solid	Prep Batch:	280-63754	Lab File ID:	G0506012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	05/06/2011 1453			Final Weight/Volume:	4000 uL
Prep Date:	04/22/2011 1842			Injection Volume:	20 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	104	106	72 - 115	6	20		
Acenaphthylene	94	97	60 - 115	7	21		
Anthracene	88	89	61 - 115	5	20		
Benzo[a]anthracene	107	109	76 - 115	5	20		
Benzo[a]pyrene	89	89	69 - 115	3	20		
Benzo[b]fluoranthene	105	106	81 - 115	5	20		
Benzo[g,h,i]perylene	102	101	71 - 115	3	20		
Benzo[k]fluoranthene	98	98	85 - 115	3	20		
Chrysene	100	101	70 - 115	5	20		
Dibenzo(a,h)anthracene	102	101	79 - 115	3	20		
Fluoranthene	99	98	67 - 115	3	20		
Fluorene	95	97	72 - 115	7	20		
Indeno[1,2,3-cd]pyrene	110	109	76 - 115	2	20		
Naphthalene	95	99	77 - 115	8	20		
Phenanthrene	98	99	79 - 115	5	20		
Pyrene	99	99	77 - 115	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Terphenyl-d14 (SUR)	96	97	72 - 115

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-63706/1-A	Analysis Batch:	280-64499	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/27/2011 2057	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.076	U	0.076	0.50
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.058	U	0.058	0.20
Iron	3.8	U	3.8	5.0
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
Zinc	0.449	B	0.40	1.0

Method Blank - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-63706/1-A	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/28/2011 0942	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Beryllium	0.033	U	0.033	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Lead	0.27	U	0.27	0.50
Vanadium	0.094	U	0.094	2.0

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Control Sample - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-63706/2-A	Analysis Batch:	280-64499	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/27/2011 2059	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	194.5	97	82 - 116	
Antimony	50.0	48.64	97	82 - 110	
Arsenic	100	99.49	99	85 - 110	
Barium	200	203.4	102	87 - 112	
Boron	100	96.96	97	81 - 110	
Cadmium	10.0	10.36	104	87 - 110	
Calcium	5000	5067	101	82 - 114	
Chromium	20.0	20.29	101	84 - 114	
Iron	100	105.2	105	87 - 120	
Magnesium	5000	4890	98	90 - 110	
Manganese	50.0	50.05	100	88 - 110	
Molybdenum	100	102.5	102	86 - 110	
Nickel	50.0	49.65	99	87 - 110	
Potassium	5000	5164	103	89 - 110	
Selenium	200	196.1	98	83 - 110	
Silicon	1000	220.5	22	10 - 70	
Silver	5.00	5.06	101	87 - 114	
Sodium	5000	5208	104	90 - 112	
Zinc	50.0	49.41	99	76 - 114	

Lab Control Sample - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-63706/2-A	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	04/28/2011 0945	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	5.00	5.02	100	84 - 114	
Cobalt	50.0	50.28	101	87 - 110	
Copper	25.0	25.46	102	88 - 110	
Lead	50.0	51.07	102	86 - 110	
Vanadium	50.0	51.30	103	88 - 110	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14883-1	Analysis Batch:	280-64499	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.05 g
Analysis Date:	04/27/2011 2108	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	4860		194	6224	702	50 - 200	4
Antimony	0.33	U	48.5	25.59	53	20 - 200	
Arsenic	1.7		97.0	76.64	77	76 - 111	
Barium	61.0		194	221.7	83	52 - 159	
Boron	0.85	U	97.0	74.08	76	75 - 107	
Cadmium	0.036	U	9.70	8.10	83	40 - 130	
Calcium	5200		4850	11110	122	43 - 165	
Chromium	5.4		19.4	20.75	79	70 - 200	
Iron	27400		97.0	29890	2566	70 - 200	4
Magnesium	4660		4850	9089	91	64 - 145	
Manganese	344		48.5	446.2	210	40 - 200	4
Molybdenum	0.26	B	97.0	76.64	79	75 - 103	
Nickel	9.2		48.5	46.65	77	61 - 126	
Potassium	700		4850	4843	85	56 - 172	
Selenium	0.75	U	194	150.2	77	76 - 104	
Silicon	196		970	450.8	26	20 - 200	
Silver	0.14	U	4.85	3.93	81	75 - 141	
Sodium	301		4850	4733	91	78 - 111	
Zinc	48.2		48.5	88.43	83	70 - 200	

Matrix Spike - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14883-1	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.05 g
Analysis Date:	04/28/2011 0954	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	0.14	U	4.85	4.19	86	72 - 105	
Cobalt	13.4		48.5	60.23	96	72 - 106	
Copper	16.6		24.3	39.77	96	37 - 187	
Lead	4.0		48.5	49.32	93	70 - 200	
Vanadium	89.4		48.5	148.4	122	50 - 169	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Duplicate - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14883-1	Analysis Batch:	280-64499	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A4042711.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.09 g
Analysis Date:	04/27/2011 2106	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	4860		4917	1	40	
Antimony	0.33	U	0.36	NC	40	U
Arsenic	1.7		2.09	18	30	
Barium	61.0		63.23	4	30	
Boron	0.85	U	0.92	NC	30	U
Cadmium	0.036	U	0.0449	NC	30	B
Calcium	5200		5461	5	30	
Chromium	5.4		5.48	2	40	
Iron	27400		29020	6	40	
Magnesium	4660		4873	5	30	
Manganese	344		361.6	5	40	
Molybdenum	0.26	B	0.281	6	30	B
Nickel	9.2		9.91	7	30	
Potassium	700		654.1	7	40	
Selenium	0.75	U	0.80	NC	30	U
Silicon	196		190.7	3	40	
Silver	0.14	U	0.15	NC	30	U
Sodium	301		319.6	6	30	
Zinc	48.2		50.55	5	40	

Duplicate - Batch: 280-63706

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-14883-1	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-63706	Lab File ID:	25A1042811.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.09 g
Analysis Date:	04/28/2011 0952	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 0830				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Beryllium	0.14	U	0.15	NC	30	U
Cobalt	13.4		14.67	9	30	
Copper	16.6		16.97	2	30	
Lead	4.0		3.94	0.8	40	
Vanadium	89.4		95.72	7	30	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63745

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-63745/1-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1826	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-63745

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-63745/2-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1828	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.374	90	87 - 111	

Matrix Spike - Batch: 280-63745

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14883-3	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1842	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0055	U	0.424	0.391	92	87 - 111	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Duplicate - Batch: 280-63745

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-14883-3	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-63745	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.69 g
Analysis Date:	04/28/2011 1844	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0055	U	0.00627	NC	20	B

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-64536

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-63723/1-A	Analysis Batch:	280-64536	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0427ANXN
Dilution:	1.0	Leach Batch:	280-63723	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/27/2011 1335	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1135				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.35	U	0.35	0.73

Method Reporting Limit Check - Batch: 280-64536

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-64536/17	Analysis Batch:	280-64536	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0427ANXN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/27/2011 1054	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.100	0.0909	91	50 - 150	B

Lab Control Sample - Batch: 280-64536

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-63723/2-A	Analysis Batch:	280-64536	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0427ANXN
Dilution:	1.0	Leach Batch:	280-63723	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/27/2011 1337	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1135				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	48.1	50.64	105	90 - 110	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike - Batch: 280-64536

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-64536	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0427ANXN
Dilution:	1.0	Leach Batch:	280-63723	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/27/2011 1341	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1135				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.35	U	40.7	46.05	113	90 - 110	N

Duplicate - Batch: 280-64536

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-64536	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0427ANXN
Dilution:	1.0	Leach Batch:	280-63723	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/27/2011 1340	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1135				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	0.35	U	0.421	NC	10	B

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-63801

Method: 9045C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-63801/4	Analysis Batch:	280-63801	Instrument ID:	WC_pH Probe
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:	04/22/2011 1252	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-63801/5	Analysis Batch:	280-63801	Instrument ID:	WC_pH Probe
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:	04/22/2011 1253	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: 280-63801

Method: 9045C
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-63801	Instrument ID:	WC_pH Probe
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-63629	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/22/2011 1423	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1032				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	8.76	8.750	0.1	5	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63808

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-63713/1-A	Analysis Batch:	280-63808	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	154.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/23/2011 0005	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Result	Qual	MDL	RL
Nitrate as N-Soluble	0.301	B	0.30	2.4
Nitrite as N-Soluble	0.33	U	0.33	2.4
Orthophosphate as P-Soluble	1.2	U	1.2	4.9

Method Reporting Limit Check - Batch: 280-63808

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-63808/11	Analysis Batch:	280-63808	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	110.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/22/2011 1036	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.200	0.191	96	50 - 150	B
Nitrite as N-Soluble	0.200	0.197	98	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.203	102	50 - 150	B

Lab Control Sample - Batch: 280-63808

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-63713/2-A	Analysis Batch:	280-63808	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	153.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/22/2011 2348	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	49.0	49.89	102	90 - 110	
Nitrite as N-Soluble	49.0	49.86	102	90 - 110	
Orthophosphate as P-Soluble	49.0	47.72	97	90 - 110	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike - Batch: 280-63808

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-63808	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	157.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/23/2011 0055	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.42	B	49.0	49.84	101	80 - 120	
Nitrite as N-Soluble	0.33	U	49.0	50.09	102	80 - 120	
Orthophosphate as P-Soluble	1.2	U	49.0	49.08	100	80 - 120	

Duplicate - Batch: 280-63808

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-63808	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	156.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/23/2011 0038	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	0.42	B	0.429	3	15	B C
Nitrite as N-Soluble	0.33	U	0.34	NC	15	U
Orthophosphate as P-Soluble	1.2	U	1.2	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Method Blank - Batch: 280-63809

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-63713/1-A	Analysis Batch:	280-63809	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	154.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/23/2011 0005	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Result	Qual	MDL	RL
Chloride-Soluble	1.9	U	1.9	4.9
Bromide-Soluble	0.38	U	0.38	1.9
Sulfate-Soluble	1.7	U	1.7	4.9
Fluoride-Soluble	0.80	U	0.80	4.9

Method Reporting Limit Check - Batch: 280-63809

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-63809/11	Analysis Batch:	280-63809	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	110.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/22/2011 1036	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1.00	0.916	92	50 - 150	B
Bromide-Soluble	0.200	0.200	100	50 - 150	B
Sulfate-Soluble	1.00	0.954	95	50 - 150	B
Fluoride-Soluble	0.200	0.198	99	50 - 150	B

Lab Control Sample - Batch: 280-63809

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-63713/2-A	Analysis Batch:	280-63809	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	153.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/22/2011 2348	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	245	250.9	102	90 - 110	
Bromide-Soluble	49.0	49.61	101	90 - 110	
Sulfate-Soluble	245	251.4	103	90 - 110	
Fluoride-Soluble	49.0	50.34	103	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Matrix Spike - Batch: 280-63809

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-63809	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	157.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/23/2011 0055	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	1.9	U	245	260.2	106	80 - 120	
Bromide-Soluble	0.38	U	49.0	49.34	101	80 - 120	
Sulfate-Soluble	6.7		245	263.1	105	80 - 120	
Fluoride-Soluble	0.80	U	49.0	46.71	95	80 - 120	

Duplicate - Batch: 280-63809

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-63809	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	156.TXT
Dilution:	1.0	Leach Batch:	280-63713	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/23/2011 0038	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/22/2011 1421				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	1.9	U	2.0	NC	15	U
Bromide-Soluble	0.38	U	0.39	NC	15	U
Sulfate-Soluble	6.7		6.88	3	15	
Fluoride-Soluble	0.80	U	0.82	NC	15	U

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-14883-1
Sdg Number: J01093

Duplicate - Batch: 280-63625

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-14883-1	Analysis Batch:	280-63625	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:	04/22/2011 1020	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	1.8	1.7	6	20	

3.5 ic

Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-190-046

 MAB 4-7-11

Collector: BC Koelling	Company Contact: Joan Kessner	Telephone No.: 375-4688	Project Coordinator: KESSNER, JH
Price Code: 8L	Data Turnaround: 21 Days		
Project Designation: 100N Field Remediation - Soil In-Process	Sampling Location: 124-N-4 Excavation		SAF No.: RC-190
Ice Chest No.: WCH-11-035	Field Logbook No.: EL-1652-2	COA: R124N42000	Method of Shipment: Fed Ex
Shipped To: TestAmerica Incorporated, ~~Richland~~ Denver MAB 4-7-11	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 7946 7155 0960

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 degrees C

Preservation	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C
Type of Container	G/P	G/P	G/P	G	G	aG	aG	aG	aG	aG
No. of Container(s)	1	1	0	1	1	1	0	0	0	0
Volume	120mL	60mL	120mL	60mL	120mL	500mL	500mL	500mL	500mL	500mL
SAMPLE ANALYSIS	See item (1) in Special Instructions.	Chromium Hex - 7196 (Hexavalent Chromium)	See item (2) in Special Instructions.	TPH-Diesel Range - WTPH-D +	VOA - 8260A (TCL)	Semi-VOA - 8270A (TCL)	PCBs - 8082	PAHs - 8310	Pesticides - 8081	Chloro-Herbicides - EPA8151

MAB 4-7-11

Sample No.	Matrix *	Sample Date	Sample Time										
J1H226	SOIL	4-19-11	1050	✓		✓	✓	✓	✓	✓	✓	✓	✓
J1H227	SOIL	4-19-11	1055	✓		✓	✓	✓	✓	✓	✓	✓	✓
J1H228	SOIL	4-19-11	1105	✓		✓	✓	✓	✓	✓	✓	✓	✓
J1H229	SOIL	4-19-11	1110	✓		✓	✓	✓	✓	✓	✓	✓	✓
		4-19-11	JEB 4-19-11										

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Phillip Brittany Koelling	1300 4/19/11	MA Bamberger MA Bamberger	1300 4/19/11
MA Bamberger MA Bamberger	1450 4/19/11	A. Freier A. Freier	4-19-11 1450
A. Freier A. Freier (WCH)	0940 4-20-11	FED EX	
		~~Received By/Stored In~~	4/21/11 938

SPECIAL INSTRUCTIONS

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

(2) IC Anions - 9056 Modified {Bromide, Chloride, Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate}; NO2/NO3 - 353.2 {Nitrogen in Nitrite and Nitrate}; pH (Soil) - 9045 {pH Measurement}

J01093

REVIEWED BY JEB DATE 4-20-11

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 - 6010TR Solid

Analytical Due:

Report Due: 5/13/11

Sample Check-in List

Date/Time Received: 4/21/11 930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: J01093 NA[ ] SAF #: RC-190 NA [ ]

Job Number: 14883 Chain of Custody # RC-190-046

Shipping Container ID: WCH-11-035 Air Bill # 7946715509 60

1. Custody Seals on shipping container intact? NA [ ] Yes [✓] No [ ]
2. Custody Seals dated and signed? NA [ ] Yes [✓] No [ ]
3. Chain of Custody record present? NA [ ] Yes [✓] No [ ]
4. Cooler Temperature °C: 3.5 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 4
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: 4/21/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[ ] No action necessary; process as is.

Project Manager [signature] Date 04/21/11

LS-023, Rev. 7, 1/08

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

RICHLAND, WA 99354

FedEx Express

J11151102250225

Ship Date: 20APR11
ActWgt: 58.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

Ref #
Invoice #
PO #
Dept #

THU - 21 APR A1
PRIORITY OVERNIGHT

TRK# 7946 7155 0960
0201

80002
CO-US
DEN

XH WHHA

50DG3/26A8/7EEB

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