0095872

SAF-RC-211
100-IU-2 & 100-IU-6 Miscellaneous Restoration Sites Near 100-F – Soil In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Kathy Wendt H4-21 KW 4/18/11
INITIAL/DATE

RECEIVED
APR 21 2011
EDMC

COMMENTS:

SDG J01048 SAF-RC-211

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location: 100-IU-2 600-319

TestAmerica

ANALYTICAL REPORT

Job Number: 280-13818-1

SDG Number: J01048

Job Description: SAF# RC-211

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
4/15/2011 3:08 PM

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

04/15/2011

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
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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Report Number: 280-13818-1

SDG #: J01048
SAF#: RC-211

Date SDG Closed: April 11, 2011
Data Deliverable: 15 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1FJL7	280-13818-1	6010/7471/1311-6010-7470/8270A	6010B/7471A/8270C/1311-6010B-7470A

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 sample was received on 3/23/2011; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 4.4 C.

Sample J1FJL7, requesting TCLP Metals 1311/6010B/7470A analyses, was leached and placed on hold, as instructed on the chain-of-custody. On 4/11/2011, the client instructed the laboratory to proceed with the requested TCLP Metals 1311/6010B/7470A analyses. Those results are included in this report.

GC/MS SEMIVOLATILES - SW846 8270C
Low levels of Bis(2-ethylhexyl) phthalate, a common laboratory contaminant, are present in the method blank associated with batch 280-59013. Because the concentration in the method blank is not present at a level greater than the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Serial dilution of a digestate in batch 280-59141 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

Low levels of Nickel and Silver are present in the method blank associated with batch 280-59141. Because the concentrations in the method blank are not present at levels greater than the reporting limits, 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 J1FJL7; therefore, control limits are not applicable.

The Matrix Spike performed on sample J1FJL7 exhibited percent recoveries outside the control limits for Silicon and Zinc, and the associated sample results have 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.

TCLP METALS - SW846 1311/6010B/7470A

Low levels of Barium are present in the method blank associated with batch 280-61711. 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.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Lab Section	Qualifier	Description
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.
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.
	N	Recovery exceeds upper or lower control limits
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
Metals (ICP)	TAL DEN	SW846 6010B	
Preparation, Metals	TAL DEN		SW846 3050B
TCLP Metals (ICP)	TAL DEN	SW846 6010B	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Total Metals	TAL DEN		SW846 3010A
TCLP Mercury	TAL DEN	SW846 7470A	
TCLP Extraction	TAL DEN		SW846 1311
Preparation, Mercury	TAL DEN		SW846 7470A
Mercury (CVAA)	TAL DEN	SW846 7471A	
Preparation, Mercury	TAL DEN		SW846 7471A
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

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: 280-13818-1
Sdg Number: J01048

Method	Analyst	Analyst ID
SW846 8270C	Kiekel, Daniel C	DCK
SW846 6010B	Harre, John K	JKH
SW846 7470A	Stoltz, Katie	KS
SW846 7471A	Stoltz, Katie	KS
ASTM D-2216	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-13818-1	J1FJL7	Solid	03/21/2011 0925	03/23/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Client Sample ID: **J1FJL7**

Lab Sample ID: 280-13818-1
Client Matrix: Solid

% Moisture: 6.2

Date Sampled: 03/21/2011 0925
Date Received: 03/23/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Prep Method:	3550C	Prep Batch:	280-59013	Lab File ID:	B3919.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	03/25/2011 2112			Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	340
Acenaphthylene		18	U	18	340
Anthracene		18	U	18	340
Benzo[a]anthracene		21	U	21	340
Benzo[a]pyrene		21	U	21	340
Benzo[b]fluoranthene		27	U	27	340
Benzo[ghi]perylene		17	U	17	340
Benzo[k]fluoranthene		42	U	42	340
Bis(2-chloroethoxy)methane		24	U	24	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		24	U	24	340
Bis(2-ethylhexyl) phthalate		48	U	48	340
4-Bromophenyl phenyl ether		20	U	20	340
Butyl benzyl phthalate		45	U	45	340
Carbazole		37	U	37	340
4-Chloroaniline		85	U	85	340
4-Chloro-3-methylphenol		69	U	69	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		22	U	22	340
4-Chlorophenyl phenyl ether		22	U	22	340
Chrysene		28	J	28	340
Dibenz(a,h)anthracene		20	U	20	340
Dibenzofuran		21	U	21	340
1,2-Dichlorobenzene		23	U	23	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		94	U	94	690
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		27	U	27	340
2,4-Dimethylphenol		69	U	69	340
Dimethyl phthalate		24	U	24	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	690
2,4-Dinitrophenol		350	U	350	860
2,4-Dinitrotoluene		69	U	69	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		19	U	19	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		52	U	52	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		23	U	23	340
Isophorone		18	U	18	340
2-Methylnaphthalene		20	U	20	340

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Client Sample ID: **J1FJL7**

Lab Sample ID: 280-13818-1
Client Matrix: Solid
% Moisture: 6.2

Date Sampled: 03/21/2011 0925
Date Received: 03/23/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Prep Method:	3550C	Prep Batch:	280-59013	Lab File ID:	B3919.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	03/25/2011 2112			Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		14	U	14	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		52	U	52	340
3-Nitroaniline		76	U	76	340
4-Nitroaniline		75	U	75	340
Nitrobenzene		23	U	23	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		100	U	100	690
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		22	U	22	340
Pentachlorophenol		340	U	340	690
Phenanthrene		18	U	18	340
Phenol		19	U	19	340
Pyrene		18	J	13	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	84		50 - 120
2-Fluorophenol	80		53 - 120
Nitrobenzene-d5	80		50 - 120
Phenol-d5	85		52 - 120
Terphenyl-d14	85		55 - 120
2,4,6-Tribromophenol	93		51 - 120

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Client Sample ID: **J1FJL7**

Lab Sample ID: 280-13818-1
Client Matrix: Solid % Moisture: 6.2

Date Sampled: 03/21/2011 0925
Date Received: 03/23/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Prep Method:	3550C	Prep Batch:	280-59013	Lab File ID:	B3919.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	03/25/2011 2112			Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	3.15	160	N J
2216-30-0	Heptane, 2,5-dimethyl-	3.28	140	N J
	Unknown	3.36	3900	N J
85-44-9	Phthalic anhydride	6.87	1600	N J
	Unknown	7.05	210	N J
	Unknown	7.93	140	N J
135-19-3	2-Naphthalenol	7.96	270	N J
	Unknown	8.04	180	N J
	Unknown	11.39	380	N J
	Unknown	11.48	560	N J
	Unknown	11.66	740	N J
	Unknown	12.01	520	N J
	Unknown	12.98	170	N J
	Unknown	13.98	270	N J

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Client Sample ID: J1FJL7

Lab Sample ID: 280-13818-1
Client Matrix: Solid
% Moisture: 6.2

Date Sampled: 03/21/2011 0925
Date Received: 03/23/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-60068	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-59141	Lab File ID:	25A2033011.asc
Dilution:	1.0			Initial Weight/Volume:	1.04 g
Analysis Date:	03/30/2011 1945			Final Weight/Volume:	100 mL
Prep Date:	03/30/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8840	X	1.6	5.1
Antimony		0.40	B	0.39	0.61
Arsenic		3.2		0.68	1.0
Barium		92.6	X	0.078	0.51
Beryllium		0.034	U	0.034	0.20
Boron		1.1	B	1.0	2.0
Cadmium		0.11	B	0.042	0.20
Calcium		3670	X	14.4	51.2
Chromium		31.5	X	0.059	0.20
Cobalt		11.4	X	0.10	1.0
Copper		16.6	X	0.22	1.0
Iron		25200	X	3.9	5.1
Lead		121	X	0.28	0.51
Magnesium		4360	X	3.8	20.5
Manganese		415	X	0.10	1.0
Molybdenum		0.77	B	0.27	2.0
Nickel		10.5	X	0.13	4.1
Potassium		1960		42.0	307
Selenium		0.88	U	0.88	1.0
Silicon		294	N	5.8	10.2
Silver		0.16	U	0.16	0.20
Sodium		200		60.5	123
Vanadium		66.3	X	0.096	2.0
Zinc		70.5	X N	0.41	1.0

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-62004	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-61711	Lab File ID:	25A7041211.asc
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	10 mL
Analysis Date:	04/13/2011 0800			Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1500				
Leach Date:	03/24/2011 1845				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.30	B	0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		0.048	B	0.0030	0.50
Lead		0.030	B	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Client Sample ID: **J1FJL7**

Lab Sample ID: 280-13818-1
Client Matrix: Solid

Date Sampled: 03/21/2011 0925
Date Received: 03/23/2011 0930

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-61981	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-61783	Lab File ID:	110412AB.txt
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	30 mL
Analysis Date:	04/13/2011 0645			Final Weight/Volume:	30 mL
Prep Date:	04/12/2011 1400				
Leach Date:	03/24/2011 1845				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Mercury		0.000030	U	0.000030	0.0020

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-60413	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-60122	Lab File ID:	110401AB.txt
Dilution:	1.0			Initial Weight/Volume:	0.62 g
Analysis Date:	04/01/2011 1428			Final Weight/Volume:	50 mL
Prep Date:	04/01/2011 1045				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.016	B	0.0057	0.018

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

General Chemistry

Client Sample ID: **J1FJL7**

Lab Sample ID: 280-13818-1
Client Matrix: Solid

Date Sampled: 03/21/2011 0925
Date Received: 03/23/2011 0930

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.2		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-59076 Analysis Date: 03/24/2011 0804 DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-59013					
LCS 280-59013/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-59013/1-A	Method Blank	T	Solid	3550C	
280-13818-1	J1FJL7	T	Solid	3550C	
280-13818-1MS	Matrix Spike	T	Solid	3550C	
280-13818-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-59570					
LCS 280-59013/2-A	Lab Control Sample	T	Solid	8270C	280-59013
MB 280-59013/1-A	Method Blank	T	Solid	8270C	280-59013
280-13818-1	J1FJL7	T	Solid	8270C	280-59013
280-13818-1MS	Matrix Spike	T	Solid	8270C	280-59013
280-13818-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-59013

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-59141					
LCS 280-59141/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-59141/1-A	Method Blank	T	Solid	3050B	
280-13818-1	J1FJL7	T	Solid	3050B	
280-13818-1DU	Duplicate	T	Solid	3050B	
280-13818-1MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 280-59214					
LCS 280-59214/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-59214/2-C	Lab Control Sample	P	Solid	1311	
LB 280-59214/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-59214/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-13818-1	J1FJL7	P	Solid	1311	
280-13818-1DU	Duplicate	P	Solid	1311	
280-13818-1MS	Matrix Spike	P	Solid	1311	
Analysis Batch:280-60068					
LCS 280-59141/2-A	Lab Control Sample	T	Solid	6010B	280-59141
MB 280-59141/1-A	Method Blank	T	Solid	6010B	280-59141
280-13818-1	J1FJL7	T	Solid	6010B	280-59141
280-13818-1DU	Duplicate	T	Solid	6010B	280-59141
280-13818-1MS	Matrix Spike	T	Solid	6010B	280-59141
Prep Batch: 280-60122					
LCS 280-60122/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-60122/1-A	Method Blank	T	Solid	7471A	
280-13818-1	J1FJL7	T	Solid	7471A	
280-13818-1DU	Duplicate	T	Solid	7471A	
280-13818-1MS	Matrix Spike	T	Solid	7471A	
Analysis Batch:280-60413					
LCS 280-60122/2-A	Lab Control Sample	T	Solid	7471A	280-60122
MB 280-60122/1-A	Method Blank	T	Solid	7471A	280-60122
280-13818-1	J1FJL7	T	Solid	7471A	280-60122
280-13818-1DU	Duplicate	T	Solid	7471A	280-60122
280-13818-1MS	Matrix Spike	T	Solid	7471A	280-60122
Prep Batch: 280-61711					
LCS 280-59214/2-B	Lab Control Sample	P	Solid	3010A	280-59214
LB 280-59214/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-59214
280-13818-1	J1FJL7	P	Solid	3010A	280-59214
280-13818-1DU	Duplicate	P	Solid	3010A	280-59214
280-13818-1MS	Matrix Spike	P	Solid	3010A	280-59214

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-61783					
LCS 280-59214/2-C	Lab Control Sample	P	Solid	7470A	280-59214
LB 280-59214/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-59214
280-13818-1	J1FJL7	P	Solid	7470A	280-59214
280-13818-1DU	Duplicate	P	Solid	7470A	280-59214
280-13818-1MS	Matrix Spike	P	Solid	7470A	280-59214
Analysis Batch:280-61981					
LCS 280-59214/2-C	Lab Control Sample	P	Solid	7470A	280-61783
LB 280-59214/1-C	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-61783
280-13818-1	J1FJL7	P	Solid	7470A	280-61783
280-13818-1DU	Duplicate	P	Solid	7470A	280-61783
280-13818-1MS	Matrix Spike	P	Solid	7470A	280-61783
Analysis Batch:280-62004					
LCS 280-59214/2-B	Lab Control Sample	P	Solid	6010B	280-61711
LB 280-59214/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-61711
280-13818-1	J1FJL7	P	Solid	6010B	280-61711
280-13818-1DU	Duplicate	P	Solid	6010B	280-61711
280-13818-1MS	Matrix Spike	P	Solid	6010B	280-61711

Report Basis
P = TCLP
T = Total

General Chemistry

Analysis Batch:280-59076					
280-13818-1	J1FJL7	T	Solid	D-2216	
280-13818-1DU	Duplicate	T	Solid	D-2216	

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Method Blank - Batch: 280-59013

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-59013/1-A	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-59013	Lab File ID:	B3913.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	03/25/2011 1915	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	9.9	U	9.9	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	78.1	J	44	320
4-Bromophenyl phenyl ether	18	U	18	320
Butyl benzyl phthalate	41	U	41	320
Carbazole	35	U	35	320
4-Chloroaniline	79	U	79	320
4-Chloro-3-methylphenol	63	U	63	320
2-Chloronaphthalene	9.6	U	9.6	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	12	U	12	320
1,4-Dichlorobenzene	13	U	13	320
3,3'-Dichlorobenzidine	87	U	87	630
2,4-Dichlorophenol	9.6	U	9.6	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	14	U	14	320
Fluoranthene	35	U	35	320
Fluorene	17	U	17	320
Hexachlorobenzene	28	U	28	320
Hexachlorobutadiene	9.6	U	9.6	320
Hexachlorocyclopentadiene	48	U	48	320
Hexachloroethane	20	U	20	320
Indeno[1,2,3-cd]pyrene	21	U	21	320
Isophorone	16	U	16	320

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Method Blank - Batch: 280-59013

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-59013/1-A	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-59013	Lab File ID:	B3913.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.2 g
Analysis Date:	03/25/2011 1915	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	18	U	18	320
2-Methylphenol	13	U	13	320
3 & 4 Methylphenol	32	U	32	320
Naphthalene	30	U	30	320
2-Nitroaniline	48	U	48	320
3-Nitroaniline	70	U	70	320
4-Nitroaniline	70	U	70	320
Nitrobenzene	21	U	21	320
2-Nitrophenol	9.6	U	9.6	320
4-Nitrophenol	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	9.6	U	9.6	320
2,4,6-Trichlorophenol	9.6	U	9.6	320

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	80	50 - 120
2-Fluorophenol	79	53 - 120
Nitrobenzene-d5	82	50 - 120
Phenol-d5	82	52 - 120
Terphenyl-d14	87	55 - 120
2,4,6-Tribromophenol	81	51 - 120

Method Blank TICs- Batch: 280-59013

Cas Number	Analyte	RT	Est. Result	Qual
2216-30-0	Heptane, 2,5-dimethyl-	3.28	154	N J
	Unknown	3.10	137	N J
	Unknown	3.15	156	N J
	Unknown	3.36	3430	N J

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Lab Control Sample - Batch: 280-59013

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-59013/2-A	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-59013	Lab File ID:	B3914.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.3 g
Analysis Date:	03/25/2011 1935	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2560	2150	84	52 - 120	
Anthracene	2560	2330	91	57 - 120	
Carbazole	2560	2330	91	54 - 120	
4-Chloro-3-methylphenol	2560	2320	91	57 - 120	
2-Chlorophenol	2560	2140	84	53 - 120	
1,4-Dichlorobenzene	2560	1950	76	46 - 120	
2,4-Dinitrotoluene	2560	2490	98	53 - 120	
2-Methylnaphthalene	2560	2110	83	55 - 120	
2-Methylphenol	2560	2090	82	51 - 120	
4-Nitrophenol	2560	2430	95	41 - 120	
N-Nitrosodi-n-propylamine	2560	2010	78	51 - 120	
Pentachlorophenol	2560	2300	90	30 - 120	
Phenol	2560	2120	83	54 - 120	
Pyrene	2560	2310	90	50 - 120	
1,2,4-Trichlorobenzene	2560	1950	76	50 - 120	
2,4,6-Trichlorophenol	2560	2360	92	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	81	50 - 120
2-Fluorophenol	80	53 - 120
Nitrobenzene-d5	81	50 - 120
Phenol-d5	83	52 - 120
Terphenyl-d14	90	55 - 120
2,4,6-Tribromophenol	95	51 - 120

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-59013

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-13818-1	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-59013	Lab File ID:	B3920.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.4 g
Analysis Date:	03/25/2011 2132			Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-13818-1	Analysis Batch:	280-59570	Instrument ID:	MSS_B
Client Matrix:	Solid	Prep Batch:	280-59013	Lab File ID:	B3921.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.5 g
Analysis Date:	03/25/2011 2151			Final Weight/Volume:	1000 uL
Prep Date:	03/23/2011 1938			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	89	89	52 - 120	3	30		
Anthracene	94	91	57 - 120	0	30		
Carbazole	90	89	54 - 120	2	30		
4-Chloro-3-methylphenol	97	97	57 - 120	3	30		
2-Chlorophenol	86	86	53 - 120	3	30		
1,4-Dichlorobenzene	74	75	46 - 120	5	30		
2,4-Dinitrotoluene	98	96	53 - 120	1	30		
2-Methylnaphthalene	84	86	55 - 120	4	30		
2-Methylphenol	88	88	51 - 120	2	30		
4-Nitrophenol	96	93	41 - 120	0	30		
N-Nitrosodi-n-propylamine	81	81	51 - 120	2	30		
Pentachlorophenol	107	100	30 - 120	4	30		
Phenol	87	87	54 - 120	3	30		
Pyrene	90	91	50 - 120	4	38		
1,2,4-Trichlorobenzene	75	77	50 - 120	6	30		
2,4,6-Trichlorophenol	100	99	50 - 120	2	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	85	86	50 - 120
2-Fluorophenol	81	82	53 - 120
Nitrobenzene-d5	81	82	50 - 120
Phenol-d5	87	87	52 - 120
Terphenyl-d14	90	90	55 - 120
2,4,6-Tribromophenol	94	91	51 - 120

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Method Blank - Batch: 280-59141

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-59141/1-A	Analysis Batch:	280-60068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-59141	Lab File ID:	25A2033011.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	03/30/2011 1941	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/30/2011 0900				
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
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Cadmium	0.041	U	0.041	0.20
Calcium	14.1	U	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lead	0.27	U	0.27	0.50
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	0.120	B	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	0.180	B	0.16	0.20
Sodium	59.0	U	59.0	120
Vanadium	0.094	U	0.094	2.0
Zinc	0.40	U	0.40	1.0

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Lab Control Sample - Batch: 280-59141

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-59141/2-A	Analysis Batch:	280-60068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-59141	Lab File ID:	25A2033011.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	03/30/2011 1943	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/30/2011 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	177.8	89	82 - 116	
Antimony	50.0	46.20	92	82 - 110	
Arsenic	100	90.38	90	85 - 110	
Barium	200	204.3	102	87 - 112	
Beryllium	5.00	4.73	95	84 - 114	
Boron	100	90.58	91	81 - 110	
Cadmium	10.0	10.04	100	87 - 110	
Calcium	5000	4837	97	82 - 114	
Chromium	20.0	19.60	98	84 - 114	
Cobalt	50.0	47.57	95	87 - 110	
Copper	25.0	23.52	94	88 - 110	
Iron	100	96.03	96	87 - 120	
Lead	50.0	44.05	88	86 - 110	
Magnesium	5000	4709	94	90 - 110	
Manganese	50.0	49.50	99	88 - 110	
Molybdenum	100	97.37	97	86 - 110	
Nickel	50.0	47.97	96	87 - 110	
Potassium	5000	5140	103	89 - 110	
Selenium	200	195.2	98	83 - 110	
Silicon	1000	140.1	14	10 - 70	
Silver	5.00	5.16	103	87 - 114	
Sodium	5000	5192	104	90 - 112	
Vanadium	50.0	50.58	101	88 - 110	
Zinc	50.0	46.45	93	76 - 114	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Matrix Spike - Batch: 280-59141

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-13818-1	Analysis Batch:	280-60068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-59141	Lab File ID:	25A2033011.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.06 g
Analysis Date:	03/30/2011 1953	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/30/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	8840		201	10880	1011	50 - 200	4
Antimony	0.40	B	50.3	22.26	43	20 - 200	
Arsenic	3.2		101	80.31	77	76 - 111	
Barium	92.6		201	285.8	96	52 - 159	
Beryllium	0.034	U	5.03	4.11	82	72 - 105	
Boron	1.1	B	101	77.82	76	75 - 107	
Cadmium	0.11	B	10.1	9.01	88	40 - 130	
Calcium	3670		5030	9328	112	43 - 165	
Chromium	31.5		20.1	51.30	99	70 - 200	
Cobalt	11.4		50.3	53.08	83	72 - 106	
Copper	16.6		25.1	38.24	86	37 - 187	
Iron	25200		101	27290	2098	70 - 200	4
Lead	121		50.3	162.3	82	70 - 200	
Magnesium	4360		5030	8935	91	64 - 145	
Manganese	415		50.3	515.6	200	40 - 200	4
Molybdenum	0.77	B	101	84.15	83	75 - 103	
Nickel	10.5		50.3	51.62	82	61 - 126	
Potassium	1960		5030	6668	94	56 - 172	
Selenium	0.88	U	201	166.2	83	76 - 104	
Silicon	294		1010	464.6	17	20 - 200	N
Silver	0.16	U	5.03	4.71	94	75 - 141	
Sodium	200		5030	5119	98	78 - 111	
Vanadium	66.3		50.3	119.8	107	50 - 169	
Zinc	70.5		50.3	101.6	62	70 - 200	N

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Duplicate - Batch: 280-59141

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-13818-1	Analysis Batch:	280-60068	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-59141	Lab File ID:	25A2033011.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.03 g
Analysis Date:	03/30/2011 1950	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	03/30/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	8840		7939	11	40	
Antimony	0.40	B	0.39	NC	40	U
Arsenic	3.2		2.78	14	30	
Barium	92.6		92.51	0.08	30	
Beryllium	0.034	U	0.034	NC	30	U
Boron	1.1	B	1.0	NC	30	U
Cadmium	0.11	B	0.120	4	30	B
Calcium	3670		3562	3	30	
Chromium	31.5		26.89	16	40	
Cobalt	11.4		11.80	3	30	
Copper	16.6		16.43	1	30	
Iron	25200		23880	5	40	
Lead	121		115.6	4	40	
Magnesium	4360		3826	13	30	
Manganese	415		387.3	7	40	
Molybdenum	0.77	B	0.691	11	30	B
Nickel	10.5		9.06	15	30	
Potassium	1960		1763	11	40	
Selenium	0.88	U	0.89	NC	30	U
Silicon	294		276.1	6	40	
Silver	0.16	U	0.17	NC	30	U
Sodium	200		168.5	17	30	
Vanadium	66.3		63.53	4	30	
Zinc	70.5		56.56	22	40	

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

TCLP SPLPE Leachate Blank - Batch: 280-61711

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-59214/1-B	Analysis Batch:	280-62004	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61711	Lab File ID:	25A7041211.asc
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	10 mL
Analysis Date:	04/13/2011 0756	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1500				
Leach Date:	03/24/2011 1845				

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.00215	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50
Lead	0.013	U	0.013	0.50
Selenium	0.024	U	0.024	0.10
Silver	0.0040	U	0.0040	0.50

Lab Control Sample - Batch: 280-61711

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-59214/2-B	Analysis Batch:	280-62004	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61711	Lab File ID:	25A7041211.asc
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	10 mL
Analysis Date:	04/13/2011 0758	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1500				
Leach Date:	03/24/2011 1845				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	4.16	104	80 - 120	
Barium	12.0	12.02	100	80 - 120	
Cadmium	1.10	1.13	103	80 - 120	
Chromium	5.20	5.21	100	80 - 120	
Lead	5.50	5.75	104	80 - 120	
Selenium	3.00	2.96	99	80 - 120	
Silver	1.05	1.03	98	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Matrix Spike - Batch: 280-61711

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-13818-1	Analysis Batch:	280-62004	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61711	Lab File ID:	25A7041211.asc
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	10 mL
Analysis Date:	04/13/2011 0808	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1500				
Leach Date:	03/24/2011 1845				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.022	U	4.00	4.16	104	80 - 120	
Barium	0.30	B	12.0	12.46	101	80 - 120	
Cadmium	0.0020	U	1.10	1.15	104	80 - 120	
Chromium	0.048	B	5.20	5.36	102	80 - 120	
Lead	0.030	B	5.50	5.76	104	80 - 120	
Selenium	0.024	U	3.00	3.01	100	80 - 120	
Silver	0.0040	U	1.05	1.06	101	80 - 120	

Duplicate - Batch: 280-61711

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-13818-1	Analysis Batch:	280-62004	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-61711	Lab File ID:	25A7041211.asc
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	10 mL
Analysis Date:	04/13/2011 0805	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/12/2011 1500				
Leach Date:	03/24/2011 1845				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.022	U	0.022	NC	20	U
Barium	0.30	B	0.280	5	20	B
Cadmium	0.0020	U	0.0020	NC	20	U
Chromium	0.048	B	0.0442	8	20	B
Lead	0.030	B	0.0298	1	20	B
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0040	U	0.0040	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

TCLP SPLPE Leachate Blank - Batch: 280-61783

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-59214/1-C	Analysis Batch:	280-61981	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61783	Lab File ID:	110412AB.txt
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	30 mL
Analysis Date:	04/13/2011 0636	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/12/2011 1400				
Leach Date:	03/24/2011 1845				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-61783

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-59214/2-C	Analysis Batch:	280-61981	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61783	Lab File ID:	110412AB.txt
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	30 mL
Analysis Date:	04/13/2011 0643	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/12/2011 1400				
Leach Date:	03/24/2011 1845				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00462	92	90 - 116	

Matrix Spike - Batch: 280-61783

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-13818-1	Analysis Batch:	280-61981	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61783	Lab File ID:	110412AB.txt
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	30 mL
Analysis Date:	04/13/2011 0650	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/12/2011 1400				
Leach Date:	03/24/2011 1845				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000030	U	0.00500	0.00484	97	90 - 116	

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Duplicate - Batch: 280-61783

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-13818-1	Analysis Batch:	280-61981	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-61783	Lab File ID:	110412AB.txt
Dilution:	1.0	Leach Batch:	280-59214	Initial Weight/Volume:	30 mL
Analysis Date:	04/13/2011 0647	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	04/12/2011 1400				
Leach Date:	03/24/2011 1845				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.000030	U	0.0000300	NC	20	B

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Method Blank - Batch: 280-60122

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-60122/1-A	Analysis Batch:	280-60413	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60122	Lab File ID:	110401AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/01/2011 1440	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/01/2011 1045				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-60122

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-60122/2-A	Analysis Batch:	280-60413	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60122	Lab File ID:	110401AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/01/2011 1442	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/01/2011 1045				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.394	94	87 - 111	

Matrix Spike - Batch: 280-60122

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-13818-1	Analysis Batch:	280-60413	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60122	Lab File ID:	110401AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.63 g
Analysis Date:	04/01/2011 1444	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/01/2011 1045				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.016	B	0.423	0.402	91	87 - 111	

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Duplicate - Batch: 280-60122

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-13818-1	Analysis Batch:	280-60413	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-60122	Lab File ID:	110401AB.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.66 g
Analysis Date:	04/01/2011 1430	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/01/2011 1045				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.016	B	0.0153	5	20	B

Client: Washington Closure Hanford

Job Number: 280-13818-1
Sdg Number: J01048

Duplicate - Batch: 280-59076

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-13818-1	Analysis Batch:	280-59076	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:	03/24/2011 0804	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	6.2	6.0	2	20	

4.4°C & 52311 R

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-211-008	Page 1 of 1
Collector OJEDA, AJ	Company Contact Jen Russell	Telephone No. (509) 540-6502	Project Coordinator KESSNER, JH	Price Code 8C Data Turnaround 15 Days
Project Designation 100-IU-2 & 100-IU-6 Miscellaneous Restoration Sites Near 1	Sampling Location 100 IU 2 600-319		SAF No. RC-211	
Ice Chest No. GWS-211	Field Logbook No. EL-1651	COA 0IU22DY000	Method of Shipment FedEx	
Shipped To TestAmerica Incorporated, ~~Richland~~ Denver JR 3/21/11	Offsite Property No. NA		Bill of Lading/Air Bill No. 7945 5927 7358	

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 degrees C

Preservation	Cool 4C	None	Cool 4C									
Type of Container	G/P	G/P	aG									
No. of Container(s)	1	1	1									
Volume	60mL	120mL	60mL									
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Semi-VOA - 8270A (TCL)									

Sample No.	Matrix *	Sample Date	Sample Time										Location # 2
~~J1FJL6~~ JR 3/21/11	~~SOIL~~												
J1FJL7	SOIL	3-21-11	0925	X	X	X							2

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From AJ Ojeda [signature]	Date/Time 3/21/11 @0929	Received By/Stored In Jen Russell Jen Russell	Date/Time 3/21/11 0927
Relinquished By/Removed From Jen Russell Jen Russell	Date/Time 3/21/11 1635	Received By/~~Stored In~~ J. E. Bahl [signature]	Date/Time 1635 3-21-11
Relinquished By/~~Removed From~~ J. E. Bahl [signature]	Date/Time 0915 WCH 3-22-11	Received By/Stored In Fed Ex	Date/Time
Relinquished By/Removed From	Date/Time	Received By/~~Stored In~~ [signature]	Date/Time 3/23/11 930
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

Please leach and hold TCLP metals, per Joan Kessner.

(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) Metals by ICP (TCLP) - 1311/6010 {Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver}; Mercury (TCLP) - 1311/7470 {Mercury}

SDG # J01048

REVIEWED BY AJ DATE 3-22-11

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

Project 28002142 -60 NTR -5.1.2

Analytical Due:

Report Due: 4/7/11 (RUSH 11 day TAT)

Sample Check-in List

Date/Time Received: 3/23/11 930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: J01048 NA[ ] SAF #: RC-211 NA [ ]

Job Number: 13818 Chain of Custody # RC-211-008

Shipping Container ID: GWS-211 Air Bill # 794559277358

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: 4.4 NA [ ] 5. Vermiculite/packing materials is NA [ ] Wet [ ] Dry [✓]
6. Number of samples in shipping container: 1
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:** 3/23/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ___ by ___ Person Contacted ___

[ ] No action necessary; process as is.

Project Manager [signature] Date 3/24/11

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: 22MAR11
ActWgt: 32.0 LB
CAD: 8897843/INET3130

Delivery Address Bar Code

Ref #
Invoice #
PO #
Dept #

SHIP TO: (303) 736-0100 BILL SENDER

Sample Recieving
Test America Denver
4955 YARROW ST

ARVADA, CO 80002

WED - 23 MAR A1
PRIORITY OVERNIGHT

TRK# 7945 5927 7358
0201

XH WHHA

80002
CO-US
DEN

50DG2/8DD9/7EFB

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