0096437

SAF-RC-073
100-D/DR Burial Grounds & Remaining Sites – Other In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

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

COMMENTS:

SDG JP0167 SAF RC-073

ADD-ON TCLP SVOA ATTACHED

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Waste Site: 100-D-62

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-15022-1

SDG Number: JP0167

Job Description: SAF# RC-073

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

Attention: Joan H Kessner

Approved for release.
Kae E Yoder
Project Manager II
5/13/2011 3:48 PM

Kae E Yoder
Project Manager II
kae.yoder@testamericainc.com
05/13/2011
Revision: 1

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: 280-15022-1

SDG #: JP0167
SAF#: RC-073

Date SDG Closed: May 9, 2011
Data Deliverable: 7 Day / Summary

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1H230	280-15022-1	6010/7471/1311-6010-7470/9056M/353.1/ 9045/8270A/8082/8081	6010B/7471A/1311-6010B-7470A/9056M/353.2/ 9045C/8270C/8082/8081A/1311-8270C

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 4/26/2011; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 5.0 C.

On 5/9/2011, the client requested TCLP Semi-VOA 1311/8270C analysis for sample J1H230. Those results are included in this report.

GC/MS SEMIVOLATILES - SW846 8270C
The method specified initial extract volume is 30 grams; however, due to the nature of the sample matrix, only 15 grams were used for sample J1H230. The reporting limits have been elevated accordingly.

Compounds Benzo(b)fluoranthene and Benzo(k)fluoranthene were unresolved in sample J1H230 due to matrix interferences. It can be noted that these compounds were adequately resolved in associated standards, indicating the instrument is achieving separation. The combined peak was reported as Benzo(b)fluoranthene, while Benzo(k)fluoranthene was reported as undetected even though it may be present. Associated results have been flagged with a "K".

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, sample J1H230 required a dilution prior to the analysis of 1,4-Dichlorobenzene, and the associated result has been flagged with a "D". The reporting limit has been adjusted relative to the dilution required. Surrogate recoveries have been "D" flagged for this analysis, as the recoveries obtained are calculated from a diluted sample and are not considered reliable.

The MS/MSD performed on sample J1H230 exhibited percent recoveries outside the control limits for 1,4-Dichlorobenzene, and the associated sample result has been flagged "T". The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

TCLP SEMIVOLATILES - SW846 1311/8270C
Insufficient sample was provided to perform the leaching procedure with the required 100g for sample J1H230. The volume of leaching fluid was adjusted proportionally to maintain a 20:1 ratio of leaching fluid to weight of sample.

The MS/MSD performed on sample J1H230 exhibited percent recoveries outside the control limits for 1,4-Dichlorobenzene, and the associated sample result has been flagged "T". In addition, the RPD limit was exceeded for Pyridine. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8081A - PESTICIDEs
The method specified initial extract volume is 30 grams; however, due to the nature of the sample matrix, only 15 grams were used for sample J1H230. The reporting limits have been elevated accordingly.

The organic prep laboratory noted that a Florisil clean-up was performed on sample J1H230 to reduce matrix interferences.

The RPD between the primary and confirmation columns exceeded 40% for analytes in sample J1H230. The lower of the two values have been reported, as matrix interference is evident. Associated results have been flagged with an "X".

The MS/MSD performed on sample J1H230 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.

No other anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs
The method specified initial extract volume is 30 grams; however, due to the nature of the sample matrix, only 15 grams were used for sample J1H230. The reporting limits have been elevated accordingly.

The laboratory noted that a Sulfuric Acid clean-up and a Mercury clean-up were performed on sample J1H230 to reduce matrix interferences.

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the method. Due to high constituent concentration, sample J1H230 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.

Surrogate recoveries have been "D" flagged in sample J1H230, as the recoveries obtained are calculated from a diluted sample and are not considered reliable.

The RPD between the primary and confirmation columns exceeded 25% for Aroclor 1254 in sample J1H230. The result has been flagged with a "P".

Spike compound recoveries, RPD data and surrogate recoveries have been "D" flagged in the MS and MSD performed on sample J1H230, as the recoveries obtained are calculated from diluted samples and are not considered reliable. The acceptable LCS analysis data indicated that the analytical system was operating within control.

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/7471A
Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. Due to high constituent concentration, the Mercury analysis of sample J1H230 had to be performed at a dilution. The reporting limit has been adjusted relative to the dilution required.

Low levels of Nickel are present in the method blank associated with batch 280-64148. 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, Chromium, Iron, Zinc and Mercury in the Matrix Spike performed on sample J1H230; therefore, control limits are not applicable.

The Matrix Spike performed on sample J1H230 exhibited percent recoveries outside the control limits for Calcium, Silicon and Silver, 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.

The duplicate analysis of sample J1H230 exhibited RPD data outside the control limits for Arsenic, Boron, Calcium, Iron, Silicon and Mercury, and the associated sample results have been flagged "M". 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 280-64417. 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 - MCAWW 353.2 - NITRATE+NITRITE as N

No anomalies were encountered.

GENERAL CHEMISTRY - SW846 9056M - ANIONS

The Orthophosphate as P Matrix Spike performed on sample J1H230 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 9045C - PH

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	K	Benzo (b&k) fluoranthene are unresolved due to matrix, result is reported as Benzo(b)fluoranthene.
	J	Indicates an Estimated Value for TICs
	T	MS, MSD: Recovery exceeds upper or lower control limits.
	*	MS/MSD RPD exceeded the control limit
	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.
	D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.
GC Semi VOA		
	U	Analyzed for but not detected.
	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
	E	Result exceeded calibration range.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	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: 280-15022-1
Sdg Number: JP0167

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.
	N	Recovery exceeds upper or lower control limits
	M	Sample duplicate precision not met.
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.

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS)	TAL DEN	SW846 8270C	
Ultrasonic Extraction	TAL DEN		SW846 3550C
TCLP Semivolatiles	TAL DEN	SW846 8270C	
TCLP Extraction	TAL DEN		SW846 1311
Liquid-Liquid Extraction (Separatory Funnel)	TAL DEN		SW846 3510C
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
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
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.

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: 280-15022-1
Sdg Number: JP0167

Method	Analyst	Analyst ID
SW846 8270C	Kiekel, Daniel C	DCK
SW846 8081A	Ream, Brian E	BER
SW846 8082	Jackson, Todd D	TDJ
SW846 6010B	Harre, John K	JKH
SW846 7470A	Niman, Katie M	KMN
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	Berry III, Paul B	PBB

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-15022-1	J1H230	Solid	04/25/2011 1230	04/26/2011 0930

SAMPLE RESULTS

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

% Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-64203	Lab File ID:	K0132.D
Dilution:	1.0			Initial Weight/Volume:	15.1 g
Analysis Date:	04/27/2011 1849			Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		310	J	55	1800
Acenaphthylene		90	U	90	1800
Anthracene		250	J	90	1800
Benzo[a]anthracene		370	J	110	1800
Benzo[a]pyrene		290	J	110	1800
Benzo[b]fluoranthene		530	J K	140	1800
Benzo[ghi]perylene		85	U	85	1800
Benzo[k]fluoranthene		210	U K	210	1800
Bis(2-chloroethoxy)methane		120	U	120	1800
Bis(2-chloroethyl)ether		88	U	88	1800
bis (2-chloroisopropyl) ether		120	U	120	1800
Bis(2-ethylhexyl) phthalate		240	U	240	1800
4-Bromophenyl phenyl ether		100	U	100	1800
Butyl benzyl phthalate		230	U	230	1800
Carbazole		190	U	190	1800
4-Chloroaniline		440	U	440	1800
4-Chloro-3-methylphenol		350	U	350	1800
2-Chloronaphthalene		53	U	53	1800
2-Chlorophenol		110	U	110	1800
4-Chlorophenyl phenyl ether		110	U	110	1800
Chrysene		460	J	140	1800
Dibenz(a,h)anthracene		100	U	100	1800
Dibenzofuran		220	J	110	1800
1,2-Dichlorobenzene		290	J	120	1800
1,3-Dichlorobenzene		64	U	64	1800
3,3'-Dichlorobenzidine		480	U	480	3500
2,4-Dichlorophenol		53	U	53	1800
Diethyl phthalate		140	U	140	1800
2,4-Dimethylphenol		350	U	350	1800
Dimethyl phthalate		120	U	120	1800
Di-n-butyl phthalate		1400	J	150	1800
4,6-Dinitro-2-methylphenol		1800	U	1800	3500
2,4-Dinitrophenol		1800	U	1800	4400
2,4-Dinitrotoluene		350	U	350	1800
2,6-Dinitrotoluene		150	U	150	1800
Di-n-octyl phthalate		77	U	77	1800
Fluoranthene		1200	J	190	1800
Fluorene		320	J	96	1800
Hexachlorobenzene		150	U	150	1800
Hexachlorobutadiene		53	U	53	1800
Hexachlorocyclopentadiene		270	U	270	1800
Hexachloroethane		110	U	110	1800
Indeno[1,2,3-cd]pyrene		120	U	120	1800
Isophorone		90	U	90	1800
2-Methylnaphthalene		180	J	100	1800
2-Methylphenol		69	U	69	1800

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid % Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-64203	Lab File ID:	K0132.D
Dilution:	1.0			Initial Weight/Volume:	15.1 g
Analysis Date:	04/27/2011 1849			Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
3 & 4 Methylphenol		180	U	180	1800
Naphthalene		190	J	170	1800
2-Nitroaniline		270	U	270	1800
3-Nitroaniline		390	U	390	1800
4-Nitroaniline		390	U	390	1800
Nitrobenzene		120	U	120	1800
2-Nitrophenol		53	U	53	1800
4-Nitrophenol		520	U	520	3500
N-Nitrosodi-n-propylamine		170	U	170	1800
N-Nitrosodiphenylamine		110	U	110	1800
Pentachlorophenol		1800	U	1800	3500
Phenanthrene		1600	J	90	1800
Phenol		96	U	96	1800
Pyrene		1000	J	64	1800
1,2,4-Trichlorobenzene		150	U	150	1800
2,4,5-Trichlorophenol		53	U	53	1800
2,4,6-Trichlorophenol		53	U	53	1800

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	83		50 - 120
2-Fluorophenol	86		53 - 120
Nitrobenzene-d5	80		50 - 120
Phenol-d5	89		52 - 120
Terphenyl-d14	91		55 - 120
2,4,6-Tribromophenol	89		51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid % Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-64203	Lab File ID:	K0132.D
Dilution:	1.0			Initial Weight/Volume:	15.1 g
Analysis Date:	04/27/2011 1849			Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL

Tentatively Identified Compounds **Number TIC's Found:** **19**

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.54	1300	N J
	Unknown	3.00	1500	N J
2958-76-1	Naphthalene, decahydro-2-methyl-	5.18	790	N J
2958-76-1	Naphthalene, decahydro-2-methyl-	5.29	830	N J
	Unknown	5.61	1000	N J
	Unknown	5.91	860	N J
	Unknown	5.96	730	N J
62108-25-2	Decane, 2,6,7-trimethyl-	6.02	1400	N J
90-12-0	1-Methylnaphthalene	6.46	120	J N J
3891-98-3	Dodecane, 2,6,10-trimethyl-	6.61	1700	N J
581-42-0	Naphthalene, 2,6-dimethyl-	6.97	1300	N J
3891-98-3	Dodecane, 2,6,10-trimethyl-	7.07	2200	N J
	Unknown	7.91	1300	N J
1921-70-6	Pentadecane, 2,6,10,14-tetramethyl-	8.12	2600	N J
	Unknown	8.31	840	N J
	Unknown	8.51	2700	N J
	Unknown	8.78	2300	N J
6561-44-0	Octadecane, 3-methyl-	9.38	2900	N J
	Unknown	12.34	24000	N J

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid
% Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-64203	Lab File ID:	K0133.D
Dilution:	10			Initial Weight/Volume:	15.1 g
Analysis Date:	04/27/2011 1909	Run Type:	DL	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,4-Dichlorobenzene		200000	D T	720	18000

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	89	D	50 - 120
2-Fluorophenol	87	D	53 - 120
Nitrobenzene-d5	85	D	50 - 120
Phenol-d5	90	D	52 - 120
Terphenyl-d14	99	D	55 - 120
2,4,6-Tribromophenol	85	D	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid % Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Prep Method:	3550C	Prep Batch:	280-64203	Lab File ID:	K0133.D
Dilution:	10			Initial Weight/Volume:	15.1 g
Analysis Date:	04/27/2011 1909	Run Type:	DL	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL

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

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	2.99	8700	N J
	Unknown	8.98	20000	N J
	Unknown	9.61	9500	N J
	Unknown	11.69	12000	N J
	Unknown	11.99	16000	N J
	Unknown	12.31	38000	N J
	Unknown	12.47	8700	N J
53584-60-4	28-Nor-17.alpha.(H)-hopane	12.67	11000	N J
	Unknown	13.20	44000	N J
	Unknown	13.28	8100	N J
	Unknown	13.35	15000	N J
	Unknown	13.41	61000	N J
	Unknown	13.61	30000	N J
7683-64-9	Squalene	13.81	23000	N J

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8270C TCLP Semivolatiles-TCLP

Analysis Method:	8270C	Analysis Batch:	280-66956	Instrument ID:	MSS_K
Prep Method:	3510C	Prep Batch:	280-66607	Lab File ID:	K0244.D
Dilution:	1.0	Leach Batch:	280-66413	Initial Weight/Volume:	200 mL
Analysis Date:	05/11/2011 1337			Final Weight/Volume:	1000 uL
Prep Date:	05/10/2011 1723			Injection Volume:	0.5 uL
Leach Date:	05/09/2011 1707				

Analyte DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
2-Methylphenol	0.0049	U	0.0049	0.050
3-Methylphenol & 4-Methylphenol	0.0012	U	0.0012	0.050
1,4-Dichlorobenzene	1.0	T	0.0016	0.020
2,4-Dinitrotoluene	0.0083	U	0.0083	0.050
Hexachlorobenzene	0.0033	U	0.0033	0.050
Hexachlorobutadiene	0.016	U	0.016	0.050
Hexachloroethane	0.010	U	0.010	0.050
Nitrobenzene	0.0040	U	0.0040	0.050
Pentachlorophenol	0.0050	U	0.0050	0.25
Pyridine	0.0056	U	0.0056	0.10
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.025
2,4,5-Trichlorophenol	0.0022	U	0.0022	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	82		49 - 120
2-Fluorophenol	88		50 - 120
Phenol-d5	86		47 - 120
2,4,6-Tribromophenol	92		51 - 120
Terphenyl-d14	93		56 - 120
Nitrobenzene-d5	89		51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

% Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8081A Organochlorine Pesticides (GC)

Analysis Method:	8081A	Analysis Batch:	280-64584	Instrument ID:	GCS_P1
Prep Method:	3550C	Prep Batch:	280-64209	Initial Weight/Volume:	15.9 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	04/28/2011 0232			Injection Volume:	1 uL
Prep Date:	04/26/2011 1917			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		2.8	U N	2.8	8.6
4,4'-DDE		93	N	1.2	8.6
4,4'-DDT		16	X	3.0	8.6
Aldrin		1.3	U	1.3	8.3
alpha-BHC		7.0	J X	1.1	8.3
beta-BHC		3.4	U N	3.4	8.3
delta-BHC		4.6	J	2.0	8.3
gamma-BHC (Lindane)		2.3	U	2.3	8.3
Heptachlor		1.1	U N	1.1	8.3
Heptachlor epoxide		2.7	J X	2.2	8.3
Endosulfan I		0.89	U N	0.89	8.3
Endosulfan II		1.5	U	1.5	8.6
Endosulfan sulfate		1.4	U	1.4	8.6
Endrin		1.5	U	1.5	8.6
Endrin aldehyde		0.86	U	0.86	8.6
Endrin ketone		2.5	U	2.5	8.6
gamma-Chlordane		1.5	J X	1.3	8.6
Methoxychlor		2.3	U	2.3	17
alpha-Chlordane		1.6	U	1.6	8.6
Dieldrin		1.1	U	1.1	8.6
Toxaphene		80	U	80	830

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	73		59 - 115
Decachlorobiphenyl	79		63 - 124

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

% Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-64837	Instrument ID:	GCS_W
Prep Method:	3550C	Prep Batch:	280-64211	Initial Weight/Volume:	15.0 g
Dilution:	5.0			Final Weight/Volume:	5000 uL
Analysis Date:	04/29/2011 1957			Injection Volume:	1 uL
Prep Date:	04/26/2011 2005			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		74	U D	74	270
Aroclor 1221		210	U D	210	440
Aroclor 1232		54	U D	54	270
Aroclor 1242		120	U D	120	270
Aroclor 1248		120	U D	120	270
Aroclor 1254		1100	D P	70	270
Aroclor 1260		1500	D	70	270

Surrogate	%Rec	Qualifier	Acceptance Limits
Decachlorobiphenyl	153	D	59 - 130
Tetrachloro-m-xylene	102	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

% Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-64725	Instrument ID:	MT_025
Prep Method:	3050B	Prep Batch:	280-64148	Lab File ID:	25A1042811.asc
Dilution:	1.0			Initial Weight/Volume:	1.05 g
Analysis Date:	04/28/2011 1017			Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 1500				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7790		4.0	12.8
Antimony		5.5		0.97	1.5
Arsenic		17.8	M	1.7	2.6
Barium		2030		0.19	1.3
Beryllium		0.084	U	0.084	0.51
Boron		7.9	M	2.5	5.1
Cadmium		6.3		0.10	0.51
Calcium		24300	M N	36.0	128
Chromium		540		0.15	0.51
Cobalt		8.3		0.26	2.6
Copper		102		0.55	2.6
Iron		20300	M	9.7	12.8
Lead		114		0.69	1.3
Magnesium		3970		9.4	51.0
Manganese		272		0.26	2.6
Molybdenum		4.8	B	0.66	5.1
Nickel		16.0		0.31	10.2
Potassium		1490		105	765
Selenium		2.2	U	2.2	2.6
Silicon		873	M N	14.4	25.5
Silver		4.4	N	0.41	0.51
Sodium		1440		151	306
Vanadium		44.4		0.24	5.1
Zinc		1710		1.0	2.6

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-65034	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-64417	Lab File ID:	25A6042911.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	04/30/2011 0038			Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Arsenic		0.022	U	0.022	0.50
Barium		0.55	B	0.0020	1.0
Cadmium		0.0020	U	0.0020	0.10
Chromium		0.0050	B	0.0030	0.50

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

6010B TCLP Metals (ICP)-TCLP

Analysis Method:	6010B	Analysis Batch:	280-65248	Instrument ID:	MT_025
Prep Method:	3010A	Prep Batch:	280-64417	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	05/02/2011 1555			Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	DryWt Corrected: N	Result (mg/L)	Qualifier	MDL	RL
Lead		0.013	U	0.013	0.50
Selenium		0.024	U	0.024	0.10
Silver		0.0040	U	0.0040	0.50

7470A TCLP Mercury-TCLP

Analysis Method:	7470A	Analysis Batch:	280-65152	Instrument ID:	MT_033
Prep Method:	7470A	Prep Batch:	280-65049	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	30 mL
Analysis Date:	05/02/2011 1258			Final Weight/Volume:	30 mL
Prep Date:	05/02/2011 0945				
Leach Date:	04/26/2011 1905				

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:	280-64749	Instrument ID:	MT_033
Prep Method:	7471A	Prep Batch:	280-64289	Lab File ID:	110428AA.txt
Dilution:	10			Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1454			Final Weight/Volume:	50 mL
Prep Date:	04/28/2011 1100				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		14.3	M	0.15	0.46

General Chemistry

Client Sample ID: **J1H230**

Lab Sample ID: 280-15022-1
Client Matrix: Solid

% Moisture: 62.7

Date Sampled: 04/25/2011 1230
Date Received: 04/26/2011 0930

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Nitrate Nitrite as N-Soluble	0.93	U	mg/Kg	0.93	2.0	1.0	353.2
Analysis Batch: 280-64939		Analysis Date: 04/29/2011 1254					DryWt Corrected: Y
Chloride-Soluble	45.3		mg/Kg	5.1	13.0	1.0	9056M
Analysis Batch: 280-64946		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y
Nitrate as N-Soluble	0.82	U	mg/Kg	0.82	6.5	1.0	9056M
Analysis Batch: 280-64945		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y
Bromide-Soluble	1.0	U	mg/Kg	1.0	5.2	1.0	9056M
Analysis Batch: 280-64946		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y
Nitrite as N-Soluble	0.87	U	mg/Kg	0.87	6.5	1.0	9056M
Analysis Batch: 280-64945		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y
Orthophosphate as P-Soluble	3.2	U N	mg/Kg	3.2	13.0	1.0	9056M
Analysis Batch: 280-64945		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y
Sulfate-Soluble	593		mg/Kg	4.5	13.0	1.0	9056M
Analysis Batch: 280-64946		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y
Fluoride-Soluble	6.4	B	mg/Kg	2.1	13.0	1.0	9056M
Analysis Batch: 280-64946		Analysis Date: 04/29/2011 0634					DryWt Corrected: Y

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	10.7		SU	0.0100	0.0100	1.0	9045C
Analysis Batch: 280-64268		Analysis Date: 04/26/2011 1712					DryWt Corrected: N
Percent Moisture	62.7		%	0.10	0.10	1.0	D-2216
Analysis Batch: 280-64159		Analysis Date: 04/26/2011 1350					DryWt Corrected: N

QUALITY CONTROL RESULTS

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-64203					
LCS 280-64203/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-64203/1-A	Method Blank	T	Solid	3550C	
280-15022-1	J1H230	T	Solid	3550C	
280-15022-1DL	J1H230	T	Solid	3550C	
280-15022-1MS	Matrix Spike	T	Solid	3550C	
280-15022-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-64550					
LCS 280-64203/2-A	Lab Control Sample	T	Solid	8270C	280-64203
MB 280-64203/1-A	Method Blank	T	Solid	8270C	280-64203
280-15022-1	J1H230	T	Solid	8270C	280-64203
280-15022-1DL	J1H230	T	Solid	8270C	280-64203
280-15022-1MS	Matrix Spike	T	Solid	8270C	280-64203
280-15022-1MSD	Matrix Spike Duplicate	T	Solid	8270C	280-64203
Prep Batch: 280-66413					
LCS 280-66413/2-B	Lab Control Sample	P	Solid	1311	
LB 280-66413/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-15022-1	J1H230	P	Solid	1311	
280-15022-1MS	Matrix Spike	P	Solid	1311	
280-15022-1MSD	Matrix Spike Duplicate	P	Solid	1311	
Prep Batch: 280-66607					
LCS 280-66413/2-B	Lab Control Sample	P	Solid	3510C	280-66413
LB 280-66413/1-B	TCLP SPLPE Leachate Blank	P	Solid	3510C	280-66413
280-15022-1	J1H230	P	Solid	3510C	280-66413
280-15022-1MS	Matrix Spike	P	Solid	3510C	280-66413
280-15022-1MSD	Matrix Spike Duplicate	P	Solid	3510C	280-66413
Analysis Batch:280-66956					
LCS 280-66413/2-B	Lab Control Sample	P	Solid	8270C	280-66607
LB 280-66413/1-B	TCLP SPLPE Leachate Blank	P	Solid	8270C	280-66607
280-15022-1	J1H230	P	Solid	8270C	280-66607
280-15022-1MS	Matrix Spike	P	Solid	8270C	280-66607
280-15022-1MSD	Matrix Spike Duplicate	P	Solid	8270C	280-66607

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-64209					
LCS 280-64209/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-64209/1-A	Method Blank	T	Solid	3550C	
280-15022-1	J1H230	T	Solid	3550C	
280-15022-1MS	Matrix Spike	T	Solid	3550C	
280-15022-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Prep Batch: 280-64211					
LCS 280-64211/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-64211/1-A	Method Blank	T	Solid	3550C	
280-15022-1	J1H230	T	Solid	3550C	
280-15022-1MS	Matrix Spike	T	Solid	3550C	
280-15022-1MSD	Matrix Spike Duplicate	T	Solid	3550C	
Analysis Batch:280-64584					
LCS 280-64209/2-A	Lab Control Sample	T	Solid	8081A	280-64209
MB 280-64209/1-A	Method Blank	T	Solid	8081A	280-64209
280-15022-1	J1H230	T	Solid	8081A	280-64209
280-15022-1MS	Matrix Spike	T	Solid	8081A	280-64209
280-15022-1MSD	Matrix Spike Duplicate	T	Solid	8081A	280-64209
Analysis Batch:280-64837					
LCS 280-64211/2-A	Lab Control Sample	T	Solid	8082	280-64211
MB 280-64211/1-A	Method Blank	T	Solid	8082	280-64211
280-15022-1	J1H230	T	Solid	8082	280-64211
280-15022-1MS	Matrix Spike	T	Solid	8082	280-64211
280-15022-1MSD	Matrix Spike Duplicate	T	Solid	8082	280-64211

Report Basis
T = Total

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-64148					
LCS 280-64148/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-64148/1-A	Method Blank	T	Solid	3050B	
280-15022-1	J1H230	T	Solid	3050B	
280-15022-1DU	Duplicate	T	Solid	3050B	
280-15022-1MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 280-64235					
LCS 280-64235/2-B	Lab Control Sample	P	Solid	1311	
LCS 280-64235/2-D	Lab Control Sample	P	Solid	1311	
LB 280-64235/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
LB 280-64235/1-D	TCLP SPLPE Leachate Blank	P	Solid	1311	
280-15022-1	J1H230	P	Solid	1311	
280-15022-1DU	Duplicate	P	Solid	1311	
280-15022-1MS	Matrix Spike	P	Solid	1311	
Prep Batch: 280-64289					
LCS 280-64289/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-64289/1-A	Method Blank	T	Solid	7471A	
280-15022-1	J1H230	T	Solid	7471A	
280-15022-1DU	Duplicate	T	Solid	7471A	
280-15022-1MS	Matrix Spike	T	Solid	7471A	
Prep Batch: 280-64417					
LCS 280-64235/2-B	Lab Control Sample	P	Solid	3010A	280-64235
LB 280-64235/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	280-64235
280-15022-1	J1H230	P	Solid	3010A	280-64235
280-15022-1DU	Duplicate	P	Solid	3010A	280-64235
280-15022-1MS	Matrix Spike	P	Solid	3010A	280-64235
Analysis Batch:280-64725					
LCS 280-64148/2-A	Lab Control Sample	T	Solid	6010B	280-64148
MB 280-64148/1-A	Method Blank	T	Solid	6010B	280-64148
280-15022-1	J1H230	T	Solid	6010B	280-64148
280-15022-1DU	Duplicate	T	Solid	6010B	280-64148
280-15022-1MS	Matrix Spike	T	Solid	6010B	280-64148
Analysis Batch:280-64749					
LCS 280-64289/2-A	Lab Control Sample	T	Solid	7471A	280-64289
MB 280-64289/1-A	Method Blank	T	Solid	7471A	280-64289
280-15022-1	J1H230	T	Solid	7471A	280-64289
280-15022-1DU	Duplicate	T	Solid	7471A	280-64289
280-15022-1MS	Matrix Spike	T	Solid	7471A	280-64289

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-65034					
LCS 280-64235/2-B	Lab Control Sample	P	Solid	6010B	280-64417
LB 280-64235/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-64417
280-15022-1	J1H230	P	Solid	6010B	280-64417
280-15022-1DU	Duplicate	P	Solid	6010B	280-64417
280-15022-1MS	Matrix Spike	P	Solid	6010B	280-64417
Prep Batch: 280-65049					
LCS 280-64235/2-D	Lab Control Sample	P	Solid	7470A	280-64235
LB 280-64235/1-D	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-64235
280-15022-1	J1H230	P	Solid	7470A	280-64235
280-15022-1DU	Duplicate	P	Solid	7470A	280-64235
280-15022-1MS	Matrix Spike	P	Solid	7470A	280-64235
Analysis Batch:280-65152					
LCS 280-64235/2-D	Lab Control Sample	P	Solid	7470A	280-65049
LB 280-64235/1-D	TCLP SPLPE Leachate Blank	P	Solid	7470A	280-65049
280-15022-1	J1H230	P	Solid	7470A	280-65049
280-15022-1DU	Duplicate	P	Solid	7470A	280-65049
280-15022-1MS	Matrix Spike	P	Solid	7470A	280-65049
Analysis Batch:280-65248					
LCS 280-64235/2-B	Lab Control Sample	P	Solid	6010B	280-64417
LB 280-64235/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	280-64417
280-15022-1	J1H230	P	Solid	6010B	280-64417
280-15022-1DU	Duplicate	P	Solid	6010B	280-64417
280-15022-1MS	Matrix Spike	P	Solid	6010B	280-64417

Report Basis
P = TCLP
T = Total

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-64159					
280-15022-1	J1H230	T	Solid	D-2216	
280-15022-1DU	Duplicate	T	Solid	D-2216	
Prep Batch: 280-64191					
280-15022-1	J1H230	S	Solid	DI Leach	
280-15022-1DU	Duplicate	S	Solid	DI Leach	
Analysis Batch:280-64268					
LCS 280-64268/4	Lab Control Sample	T	Water	9045C	
LCSD 280-64268/5	Lab Control Sample Duplicate	T	Water	9045C	
280-15022-1	J1H230	S	Solid	9045C	
280-15022-1DU	Duplicate	S	Solid	9045C	
Prep Batch: 280-64598					
LCS 280-64598/1-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-64598/2-A	Method Blank	S	Solid	DI Leach	
280-15022-1	J1H230	S	Solid	DI Leach	
280-15022-1DU	Duplicate	S	Solid	DI Leach	
280-15022-1MS	Matrix Spike	S	Solid	DI Leach	
Prep Batch: 280-64766					
LCS 280-64766/2-A	Lab Control Sample	S	Solid	DI Leach	
MB 280-64766/1-A	Method Blank	S	Solid	DI Leach	
280-15022-1	J1H230	S	Solid	DI Leach	
280-15022-1DU	Duplicate	S	Solid	DI Leach	
280-15022-1MS	Matrix Spike	S	Solid	DI Leach	
Analysis Batch:280-64939					
LCS 280-64766/2-A	Lab Control Sample	S	Solid	353.2	
MB 280-64766/1-A	Method Blank	S	Solid	353.2	
280-15022-1	J1H230	S	Solid	353.2	
280-15022-1DU	Duplicate	S	Solid	353.2	
280-15022-1MS	Matrix Spike	S	Solid	353.2	
Analysis Batch:280-64945					
LCS 280-64598/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-64598/2-A	Method Blank	S	Solid	9056M	
280-15022-1	J1H230	S	Solid	9056M	
280-15022-1DU	Duplicate	S	Solid	9056M	
280-15022-1MS	Matrix Spike	S	Solid	9056M	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-64946					
LCS 280-64598/1-A	Lab Control Sample	S	Solid	9056M	
MB 280-64598/2-A	Method Blank	S	Solid	9056M	
280-15022-1	J1H230	S	Solid	9056M	
280-15022-1DU	Duplicate	S	Solid	9056M	
280-15022-1MS	Matrix Spike	S	Solid	9056M	

Report Basis
S = Soluble
T = Total

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64203

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-64203/1-A	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-64203	Lab File ID:	K0119.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.1 g
Analysis Date:	04/27/2011 1423	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			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	39	U	39	320
Bis(2-chloroethoxy)methane	22	U	22	320
Bis(2-chloroethyl)ether	16	U	16	320
bis (2-chloroisopropyl) ether	22	U	22	320
Bis(2-ethylhexyl) phthalate	44	U	44	320
4-Bromophenyl phenyl ether	18	U	18	320
Butyl benzyl phthalate	41	U	41	320
Carbazole	35	U	35	320
4-Chloroaniline	79	U	79	320
4-Chloro-3-methylphenol	64	U	64	320
2-Chloronaphthalene	9.6	U	9.6	320
2-Chlorophenol	20	U	20	320
4-Chlorophenyl phenyl ether	20	U	20	320
Chrysene	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	640
2,4-Dichlorophenol	9.6	U	9.6	320
Diethyl phthalate	25	U	25	320
2,4-Dimethylphenol	64	U	64	320
Dimethyl phthalate	22	U	22	320
Di-n-butyl phthalate	28	U	28	320
4,6-Dinitro-2-methylphenol	320	U	320	640
2,4-Dinitrophenol	320	U	320	800
2,4-Dinitrotoluene	64	U	64	320
2,6-Dinitrotoluene	27	U	27	320
Di-n-octyl phthalate	14	U	14	320
Fluoranthene	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	21	U	21	320
Indeno[1,2,3-cd]pyrene	21	U	21	320
Isophorone	16	U	16	320

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64203

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-64203/1-A	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-64203	Lab File ID:	K0119.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.1 g
Analysis Date:	04/27/2011 1423	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			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	94	U	94	640
N-Nitrosodi-n-propylamine	30	U	30	320
N-Nitrosodiphenylamine	20	U	20	320
Pentachlorophenol	320	U	320	640
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	75	50 - 120
2-Fluorophenol	73	53 - 120
Nitrobenzene-d5	75	50 - 120
Phenol-d5	74	52 - 120
Terphenyl-d14	85	55 - 120
2,4,6-Tribromophenol	86	51 - 120

Method Blank TICs- Batch: 280-64203

Cas Number	Analyte	RT	Est. Result	Qual
2216-30-0	Heptane, 2,5-dimethyl-	2.91	144	N J
	Unknown	3.00	3290	N J

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Control Sample - Batch: 280-64203

Method: 8270C
Preparation: 3550C

Lab Sample ID:	LCS 280-64203/2-A	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-64203	Lab File ID:	K0120.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.8 g
Analysis Date:	04/27/2011 1444	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2440	1960	80	52 - 120	
Anthracene	2440	2150	88	57 - 120	
Carbazole	2440	2090	86	54 - 120	
4-Chloro-3-methylphenol	2440	2040	84	57 - 120	
2-Chlorophenol	2440	1940	80	53 - 120	
1,4-Dichlorobenzene	2440	1810	74	46 - 120	
2,4-Dinitrotoluene	2440	2230	91	53 - 120	
2-Methylnaphthalene	2440	1900	78	55 - 120	
2-Methylphenol	2440	1890	78	51 - 120	
4-Nitrophenol	2440	2040	84	41 - 120	
N-Nitrosodi-n-propylamine	2440	1830	75	51 - 120	
Pentachlorophenol	2440	2190	90	30 - 120	
Phenol	2440	1910	78	54 - 120	
Pyrene	2440	2300	94	50 - 120	
1,2,4-Trichlorobenzene	2440	1870	77	50 - 120	
2,4,6-Trichlorophenol	2440	2210	91	50 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	79	50 - 120
2-Fluorophenol	75	53 - 120
Nitrobenzene-d5	77	50 - 120
Phenol-d5	77	52 - 120
Terphenyl-d14	93	55 - 120
2,4,6-Tribromophenol	96	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-64203

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-15022-1	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-64203	Lab File ID:	K0134.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.2 g
Analysis Date:	04/27/2011 1929			Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-15022-1	Analysis Batch:	280-64550	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-64203	Lab File ID:	K0135.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.8 g
Analysis Date:	04/27/2011 1950			Final Weight/Volume:	1000 uL
Prep Date:	04/26/2011 1910			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	82	83	52 - 120	3	30		
Anthracene	86	87	57 - 120	2	30		
Carbazole	87	87	54 - 120	4	30		
4-Chloro-3-methylphenol	91	91	57 - 120	4	30		
2-Chlorophenol	91	92	53 - 120	3	30		
1,4-Dichlorobenzene	-98	-75	46 - 120	3	30	T	T
2,4-Dinitrotoluene	92	92	53 - 120	4	30		
2-Methylnaphthalene	83	81	55 - 120	6	30		
2-Methylphenol	92	92	51 - 120	4	30		
4-Nitrophenol	80	87	41 - 120	4	30		
N-Nitrosodi-n-propylamine	87	86	51 - 120	5	30		
Pentachlorophenol	83	89	30 - 120	3	30		
Phenol	91	91	54 - 120	3	30		
Pyrene	92	93	50 - 120	2	38		
1,2,4-Trichlorobenzene	78	77	50 - 120	6	30		
2,4,6-Trichlorophenol	87	88	50 - 120	3	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	81	82	50 - 120
2-Fluorophenol	85	86	53 - 120
Nitrobenzene-d5	80	81	50 - 120
Phenol-d5	89	89	52 - 120
Terphenyl-d14	92	93	55 - 120
2,4,6-Tribromophenol	82	86	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

TCLP SPLPE Leachate Blank - Batch: 280-66607

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LB 280-66413/1-B	Analysis Batch:	280-66956	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-66607	Lab File ID:	K0240.D
Dilution:	1.0	Leach Batch:	280-66413	Initial Weight/Volume:	200 mL
Analysis Date:	05/11/2011 1217	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	05/10/2011 1723			Injection Volume:	0.5 uL
Leach Date:	05/09/2011 1707				

Analyte	Result	Qual	MDL	RL
Pyridine	0.0056	U	0.0056	0.10
1,4-Dichlorobenzene	0.0016	U	0.0016	0.020
2,4-Dinitrotoluene	0.0083	U	0.0083	0.050
Hexachlorobenzene	0.0033	U	0.0033	0.050
Hexachlorobutadiene	0.016	U	0.016	0.050
Hexachloroethane	0.010	U	0.010	0.050
2-Methylphenol	0.0049	U	0.0049	0.050
3-Methylphenol & 4-Methylphenol	0.0012	U	0.0012	0.050
Nitrobenzene	0.0040	U	0.0040	0.050
Pentachlorophenol	0.0050	U	0.0050	0.25
2,4,5-Trichlorophenol	0.0022	U	0.0022	0.050
2,4,6-Trichlorophenol	0.0014	U	0.0014	0.025

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	80	49 - 120
2-Fluorophenol	85	50 - 120
Nitrobenzene-d5	89	51 - 120
Phenol-d5	81	47 - 120
Terphenyl-d14	88	56 - 120
2,4,6-Tribromophenol	90	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Control Sample - Batch: 280-66607

Method: 8270C
Preparation: 3510C
TCLP

Lab Sample ID:	LCS 280-66413/2-B	Analysis Batch:	280-66956	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-66607	Lab File ID:	K0241.D
Dilution:	1.0	Leach Batch:	280-66413	Initial Weight/Volume:	202 mL
Analysis Date:	05/11/2011 1237	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	05/10/2011 1723			Injection Volume:	0.5 uL
Leach Date:	05/09/2011 1707				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Pyridine	0.248	0.119	48	10 - 121	
1,4-Dichlorobenzene	0.248	0.179	72	36 - 120	
2,4-Dinitrotoluene	0.0990	0.0841	85	36 - 120	
Hexachlorobenzene	0.0990	0.0865	87	52 - 120	
Hexachlorobutadiene	0.248	0.162	65	35 - 120	
Hexachloroethane	0.248	0.166	67	35 - 120	
2-Methylphenol	0.248	0.225	91	45 - 120	
3-Methylphenol & 4-Methylphenol	0.495	0.423	85	44 - 120	
Nitrobenzene	0.248	0.215	87	50 - 120	
Pentachlorophenol	0.495	0.431	87	39 - 120	
2,4,5-Trichlorophenol	0.248	0.223	90	46 - 120	
2,4,6-Trichlorophenol	0.248	0.231	94	43 - 120	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	80	49 - 120
2-Fluorophenol	83	50 - 120
Nitrobenzene-d5	88	51 - 120
Phenol-d5	81	47 - 120
Terphenyl-d14	87	56 - 120
2,4,6-Tribromophenol	89	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-66607

Method: 8270C
Preparation: 3510C
TCLP

MS Lab Sample ID:	280-15022-1	Analysis Batch:	280-66956	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-66607	Lab File ID:	K0245.D
Dilution:	1.0	Leach Batch:	280-66413	Initial Weight/Volume:	202 mL
Analysis Date:	05/11/2011 1357			Final Weight/Volume:	1000 uL
Prep Date:	05/10/2011 1723			Injection Volume:	0.5 uL
Leach Date:	05/09/2011 1707				

MSD Lab Sample ID:	280-15022-1	Analysis Batch:	280-66956	Instrument ID:	MSS_K
Client Matrix:	Solid	Prep Batch:	280-66607	Lab File ID:	K0246.D
Dilution:	1.0	Leach Batch:	280-66413	Initial Weight/Volume:	204 mL
Analysis Date:	05/11/2011 1417			Final Weight/Volume:	1000 uL
Prep Date:	05/10/2011 1723			Injection Volume:	0.5 uL
Leach Date:	05/09/2011 1707				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Pyridine	32	14	10 - 121	80	30	J	J *
1,4-Dichlorobenzene	21	7	36 - 120	4	30	T	T
2,4-Dinitrotoluene	87	88	36 - 120	0	30		
Hexachlorobenzene	86	89	52 - 120	2	30		
Hexachlorobutadiene	64	59	35 - 120	9	30		
Hexachloroethane	68	63	35 - 120	8	30		
2-Methylphenol	91	92	45 - 120	0	30		
3-Methylphenol & 4-Methylphenol	86	86	44 - 120	0	30		
Nitrobenzene	84	86	50 - 120	1	30		
Pentachlorophenol	90	91	39 - 120	1	30		
2,4,5-Trichlorophenol	89	92	46 - 120	3	30		
2,4,6-Trichlorophenol	93	95	43 - 120	2	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	78	80	49 - 120
2-Fluorophenol	83	84	50 - 120
Nitrobenzene-d5	85	87	51 - 120
Phenol-d5	81	81	47 - 120
Terphenyl-d14	87	88	56 - 120
2,4,6-Tribromophenol	87	90	51 - 120

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64209

Method: 8081A
Preparation: 3550C

Lab Sample ID:	MB 280-64209/1-A	Analysis Batch:	280-64584	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64209	Lab File ID:	035F3501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.9 g
Analysis Date:	04/28/2011 0322	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/26/2011 1917			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	0.53	U	0.53	1.7
4,4'-DDE	0.23	U	0.23	1.7
4,4'-DDT	0.57	U	0.57	1.7
Aldrin	0.24	U	0.24	1.6
alpha-BHC	0.21	U	0.21	1.6
beta-BHC	0.64	U	0.64	1.6
delta-BHC	0.39	U	0.39	1.6
gamma-BHC (Lindane)	0.45	U	0.45	1.6
Heptachlor	0.21	U	0.21	1.6
Heptachlor epoxide	0.41	U	0.41	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	0.47	U	0.47	1.7
gamma-Chlordane	0.26	U	0.26	1.7
Methoxychlor	0.44	U	0.44	3.2
alpha-Chlordane	0.31	U	0.31	1.7
Dieldrin	0.20	U	0.20	1.7
Toxaphene	15	U	15	160

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	75	59 - 115
Decachlorobiphenyl	76	63 - 124

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Control Sample - Batch: 280-64209

Method: 8081A
Preparation: 3550C

Lab Sample ID:	LCS 280-64209/2-A	Analysis Batch:	280-64584	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64209	Lab File ID:	031F3101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	04/28/2011 0215	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	04/26/2011 1917			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	16.5	10.2	62	57 - 118	
4,4'-DDE	16.5	11.1	67	61 - 115	
4,4'-DDT	16.5	11.0	67	53 - 125	
Aldrin	16.5	12.7	77	60 - 115	
alpha-BHC	16.5	12.3	75	54 - 115	
beta-BHC	16.5	13.0	79	58 - 115	
delta-BHC	16.5	14.0	85	62 - 115	
gamma-BHC (Lindane)	16.5	12.6	76	59 - 115	
Heptachlor	16.5	13.4	81	61 - 115	
Heptachlor epoxide	16.5	13.3	80	62 - 112	
Endosulfan I	16.5	12.3	75	55 - 115	
Endosulfan II	16.5	15.0	91	60 - 115	
Endosulfan sulfate	16.5	15.1	91	58 - 118	
Endrin	16.5	15.7	95	61 - 121	
Endrin aldehyde	16.5	11.9	72	54 - 115	
Endrin ketone	16.5	13.8	83	61 - 118	
gamma-Chlordane	16.5	12.9	78	60 - 115	
Methoxychlor	16.5	14.1	85	52 - 123	
alpha-Chlordane	16.5	12.5	76	60 - 115	
Dieldrin	16.5	13.4	81	63 - 117	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	71	59 - 115
Decachlorobiphenyl	95	63 - 124

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-64209

Method: 8081A
Preparation: 3550C

MS Lab Sample ID:	280-15022-1	Analysis Batch:	280-64584	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64209	Lab File ID:	033F3301.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.3 g
Analysis Date:	04/28/2011 0249			Final Weight/Volume:	10000 uL
Prep Date:	04/26/2011 1917			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-15022-1	Analysis Batch:	280-64584	Instrument ID:	GCS_P1
Client Matrix:	Solid	Prep Batch:	280-64209	Lab File ID:	034F3401.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.1 g
Analysis Date:	04/28/2011 0305			Final Weight/Volume:	10000 uL
Prep Date:	04/26/2011 1917			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
4,4'-DDD	58	56	57 - 118	3	20		N
4,4'-DDE	123	90	61 - 115	15	15	E N	
4,4'-DDT	80	66	53 - 125	14	29		
Aldrin	77	69	60 - 115	10	50		
alpha-BHC	77	71	54 - 115	6	17		
beta-BHC	99	118	58 - 115	20	17		N *
delta-BHC	75	107	62 - 115	34	19		*
gamma-BHC (Lindane)	72	72	59 - 115	1	24		
Heptachlor	87	150	61 - 115	55	18		N *
Heptachlor epoxide	82	68	62 - 112	17	18		
Endosulfan I	68	51	55 - 115	27	26		N *
Endosulfan II	68	63	60 - 115	7	20		
Endosulfan sulfate	74	67	58 - 118	9	22		
Endrin	97	89	61 - 121	7	30		
Endrin aldehyde	61	60	54 - 115	0	29		
Endrin ketone	74	87	61 - 118	17	20		
gamma-Chlordane	76	70	60 - 115	7	21		
Methoxychlor	75	66	52 - 123	12	23		
alpha-Chlordane	75	64	60 - 115	15	18		
Dieldrin	82	99	63 - 117	20	25		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Tetrachloro-m-xylene	83	62	59 - 115
Decachlorobiphenyl	88	76	63 - 124

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64211

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-64211/1-A	Analysis Batch:	280-64837	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64211	Lab File ID:	021F2101.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.3 g
Analysis Date:	04/29/2011 1854	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/26/2011 2005			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.7	U	2.7	9.9
Aroclor 1221	7.9	U	7.9	16
Aroclor 1232	2.0	U	2.0	9.9
Aroclor 1242	4.6	U	4.6	9.9
Aroclor 1248	4.6	U	4.6	9.9
Aroclor 1254	2.6	U	2.6	9.9
Aroclor 1260	2.6	U	2.6	9.9

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	73	59 - 130
Tetrachloro-m-xylene	99	53 - 128

Lab Control Sample - Batch: 280-64211

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-64211/2-A	Analysis Batch:	280-64837	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64211	Lab File ID:	022F2201.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.2 g
Analysis Date:	04/29/2011 1925	Units:	ug/Kg	Final Weight/Volume:	5000 uL
Prep Date:	04/26/2011 2005			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	33.1	30.5	92	54 - 132	
Aroclor 1260	33.1	31.4	95	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	84	59 - 130
Tetrachloro-m-xylene	100	53 - 128

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-64211

Method: 8082
Preparation: 3550C

MS Lab Sample ID:	280-15022-1	Analysis Batch:	280-64837	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64211	Lab File ID:	024F2401.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	15.3 g
Analysis Date:	04/29/2011 2029			Final Weight/Volume:	5000 uL
Prep Date:	04/26/2011 2005			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-15022-1	Analysis Batch:	280-64837	Instrument ID:	GCS_W
Client Matrix:	Solid	Prep Batch:	280-64211	Lab File ID:	026F2601.D
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	15.5 g
Analysis Date:	04/29/2011 2133			Final Weight/Volume:	5000 uL
Prep Date:	04/26/2011 2005			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aroclor 1016	421	395	54 - 132	8	26	D	D
Aroclor 1260	-391	-544	62 - 129	28	26	D	D

Surrogate	MS % Rec		MSD % Rec		Acceptance Limits
Decachlorobiphenyl	95	D	66	D	59 - 130
Tetrachloro-m-xylene	97	D	94	D	53 - 128

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64148

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-64148/1-A	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64148	Lab File ID:	25A1042811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	04/28/2011 1013	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 1500				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	0.016	U	0.016	0.050
Antimony	0.0038	U	0.0038	0.0060
Arsenic	0.0066	U	0.0066	0.010
Barium	0.00076	U	0.00076	0.0050
Beryllium	0.00033	U	0.00033	0.0020
Boron	0.0098	U	0.0098	0.020
Cadmium	0.00041	U	0.00041	0.0020
Calcium	0.14	U	0.14	0.50
Chromium	0.00058	U	0.00058	0.0020
Cobalt	0.0010	U	0.0010	0.010
Copper	0.0022	U	0.0022	0.010
Iron	0.038	U	0.038	0.050
Lead	0.0027	U	0.0027	0.0050
Magnesium	0.037	U	0.037	0.20
Manganese	0.0010	U	0.0010	0.010
Molybdenum	0.0026	U	0.0026	0.020
Nickel	0.00138	B	0.0012	0.040
Potassium	0.41	U	0.41	3.0
Selenium	0.0086	U	0.0086	0.010
Silicon	0.057	U	0.057	0.10
Silver	0.0016	U	0.0016	0.0020
Sodium	0.59	U	0.59	1.2
Vanadium	0.00094	U	0.00094	0.020
Zinc	0.0040	U	0.0040	0.010

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Control Sample - Batch: 280-64148

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-64148/2-A	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64148	Lab File ID:	25A1042811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	04/28/2011 1015	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 1500				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	2.00	2.03	101	82 - 116	
Antimony	0.500	0.505	101	82 - 110	
Arsenic	1.00	1.06	106	85 - 110	
Barium	2.00	2.03	102	87 - 112	
Beryllium	0.0500	0.0499	100	84 - 114	
Boron	1.00	1.01	101	81 - 110	
Cadmium	0.100	0.105	105	87 - 110	
Calcium	50.0	50.85	102	82 - 114	
Chromium	0.200	0.205	102	84 - 114	
Cobalt	0.500	0.508	102	87 - 110	
Copper	0.250	0.251	100	88 - 110	
Iron	1.00	0.997	100	87 - 120	
Lead	0.500	0.502	100	86 - 110	
Magnesium	50.0	49.89	100	90 - 110	
Manganese	0.500	0.498	100	88 - 110	
Molybdenum	1.00	1.04	104	86 - 110	
Nickel	0.500	0.511	102	87 - 110	
Potassium	50.0	51.71	103	89 - 110	
Selenium	2.00	2.04	102	83 - 110	
Silicon	10.0	1.60	16	10 - 70	
Silver	0.0500	0.0504	101	87 - 114	
Sodium	50.0	51.12	102	90 - 112	
Vanadium	0.500	0.505	101	88 - 110	
Zinc	0.500	0.496	99	76 - 114	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike - Batch: 280-64148

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64148	Lab File ID:	25A1042811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.02 g
Analysis Date:	04/28/2011 1022	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	7790		525	12360	870	50 - 200	4
Antimony	5.5		131	115.0	83	20 - 200	
Arsenic	17.8		263	294.7	105	76 - 111	
Barium	2030		525	2348	60	52 - 159	
Beryllium	0.084	U	13.1	12.48	95	72 - 105	
Boron	7.9		263	258.7	95	75 - 107	
Cadmium	6.3		26.3	31.70	97	40 - 130	
Calcium	24300		13100	49170	189	43 - 165	N
Chromium	540		52.5	907.7	700	70 - 200	4
Cobalt	8.3		131	133.3	95	72 - 106	
Copper	102		65.7	170.2	104	37 - 187	
Iron	20300		263	21820	592	70 - 200	4
Lead	114		131	214.8	77	70 - 200	
Magnesium	3970		13100	17200	101	64 - 145	
Manganese	272		131	442.5	130	40 - 200	
Molybdenum	4.8	B	263	257.8	96	75 - 103	
Nickel	16.0		131	139.2	94	61 - 126	
Potassium	1490		13100	14980	103	56 - 172	
Selenium	2.2	U	525	493.7	94	76 - 104	
Silicon	873		2630	1045	7	20 - 200	N
Silver	4.4		13.1	23.14	143	75 - 141	N
Sodium	1440		13100	14740	101	78 - 111	
Vanadium	44.4		131	177.5	101	50 - 169	
Zinc	1710		131	1707	-1	70 - 200	4

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Duplicate - Batch: 280-64148

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64725	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64148	Lab File ID:	25A1042811.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.16 g
Analysis Date:	04/28/2011 1024	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	04/27/2011 1500				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	7790		8493	9	40	
Antimony	5.5		6.15	11	40	
Arsenic	17.8		33.47	61	30	M
Barium	2030		1913	6	30	
Beryllium	0.084	U	0.076	NC	30	U
Boron	7.9		14.85	61	30	M
Cadmium	6.3		5.45	14	30	
Calcium	24300		39780	48	30	M
Chromium	540		492.5	9	40	
Cobalt	8.3		8.31	0.2	30	
Copper	102		118.1	15	30	
Iron	20300		96550	131	40	M
Lead	114		130.4	13	40	
Magnesium	3970		4072	3	30	
Manganese	272		307.0	12	40	
Molybdenum	4.8	B	4.72	1	30	
Nickel	16.0		18.08	12	30	
Potassium	1490		1433	4	40	
Selenium	2.2	U	2.0	NC	30	U
Silicon	873		473.5	59	40	M
Silver	4.4		5.65	25	30	
Sodium	1440		1674	15	30	
Vanadium	44.4		44.66	0.6	30	
Zinc	1710		1419	19	40	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

TCLP SPLPE Leachate Blank - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-64235/1-B	Analysis Batch:	280-65034	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A6042911.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	04/30/2011 0033	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Result	Qual	MDL	RL
Arsenic	0.022	U	0.022	0.50
Barium	0.00220	B	0.0020	1.0
Cadmium	0.0020	U	0.0020	0.10
Chromium	0.0030	U	0.0030	0.50

TCLP SPLPE Leachate Blank - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LB 280-64235/1-B	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	05/02/2011 1550	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Result	Qual	MDL	RL
Lead	0.013	U	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: 280-15022-1
Sdg Number: JP0167

Lab Control Sample - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-64235/2-B	Analysis Batch:	280-65034	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A6042911.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	04/30/2011 0035	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	4.00	3.99	100	80 - 120	
Barium	12.0	11.27	94	80 - 120	
Cadmium	1.10	1.03	94	80 - 120	
Chromium	5.20	4.80	92	80 - 120	

Lab Control Sample - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	LCS 280-64235/2-B	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	05/02/2011 1553	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lead	5.50	5.49	100	80 - 120	
Selenium	3.00	2.98	99	80 - 120	
Silver	1.05	1.08	103	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-15022-1	Analysis Batch:	280-65034	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A6042911.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	04/30/2011 0042	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	0.022	U	4.00	4.06	102	80 - 120	
Barium	0.55	B	12.0	11.71	93	80 - 120	
Cadmium	0.0020	U	1.10	1.04	94	80 - 120	
Chromium	0.0050	B	5.20	4.75	91	80 - 120	

Matrix Spike - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-15022-1	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	05/02/2011 1600	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Lead	0.013	U	5.50	5.62	102	80 - 120	
Selenium	0.024	U	3.00	3.03	101	80 - 120	
Silver	0.0040	U	1.05	1.12	107	80 - 120	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Duplicate - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-15022-1	Analysis Batch:	280-65034	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A6042911.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	04/30/2011 0045	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	0.022	U	0.022	NC	20	U
Barium	0.55	B	0.508	8	20	B
Cadmium	0.0020	U	0.0020	NC	20	U
Chromium	0.0050	B	0.00535	8	20	B

Duplicate - Batch: 280-64417

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID:	280-15022-1	Analysis Batch:	280-65248	Instrument ID:	MT_025
Client Matrix:	Solid	Prep Batch:	280-64417	Lab File ID:	25A1050211.asc
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	10 mL
Analysis Date:	05/02/2011 1602	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/29/2011 0700				
Leach Date:	04/26/2011 1905				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Lead	0.013	U	0.013	NC	20	U
Selenium	0.024	U	0.024	NC	20	U
Silver	0.0040	U	0.0040	NC	20	U

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

TCLP SPLPE Leachate Blank - Batch: 280-65049

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LB 280-64235/1-D	Analysis Batch:	280-65152	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-65049	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	30 mL
Analysis Date:	05/02/2011 1253	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	05/02/2011 0945				
Leach Date:	04/26/2011 1905				

Analyte	Result	Qual	MDL	RL
Mercury	0.000030	U	0.000030	0.0020

Lab Control Sample - Batch: 280-65049

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	LCS 280-64235/2-D	Analysis Batch:	280-65152	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-65049	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	30 mL
Analysis Date:	05/02/2011 1255	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	05/02/2011 0945				
Leach Date:	04/26/2011 1905				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00450	90	90 - 116	

Matrix Spike - Batch: 280-65049

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-15022-1	Analysis Batch:	280-65152	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-65049	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	30 mL
Analysis Date:	05/02/2011 1302	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	05/02/2011 0945				
Leach Date:	04/26/2011 1905				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.000030	U	0.00500	0.00472	94	90 - 116	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Duplicate - Batch: 280-65049

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID:	280-15022-1	Analysis Batch:	280-65152	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-65049	Lab File ID:	110502AA.txt
Dilution:	1.0	Leach Batch:	280-64235	Initial Weight/Volume:	30 mL
Analysis Date:	05/02/2011 1300	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	05/02/2011 0945				
Leach Date:	04/26/2011 1905				

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

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64289

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-64289/1-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64289	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1443	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: 280-64289

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-64289/2-A	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64289	Lab File ID:	110428AA.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/28/2011 1445	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	0.455	109	87 - 111	

Matrix Spike - Batch: 280-64289

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64289	Lab File ID:	110428AA.txt
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.64 g
Analysis Date:	04/28/2011 1523	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	14.3	1.05	17.54	312	87 - 111	4

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Duplicate - Batch: 280-64289

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64749	Instrument ID:	MT_033
Client Matrix:	Solid	Prep Batch:	280-64289	Lab File ID:	110428AA.txt
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	0.67 g
Analysis Date:	04/28/2011 1513	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	14.3	32.49	78	20	M

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64939

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 280-64766/1-A	Analysis Batch:	280-64939	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0429ANXN
Dilution:	1.0	Leach Batch:	280-64766	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1251	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1315				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N-Soluble	0.36	U	0.36	0.75

Method Reporting Limit Check - Batch: 280-64939

Method: 353.2
Preparation: N/A

Lab Sample ID:	MRL 280-64939/17	Analysis Batch:	280-64939	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0429ANXN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	04/29/2011 1146	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	0.0799	80	50 - 150	B

Lab Control Sample - Batch: 280-64939

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCS 280-64766/2-A	Analysis Batch:	280-64939	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0429ANXN
Dilution:	1.0	Leach Batch:	280-64766	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1253	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1315				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	50.0	51.33	103	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike - Batch: 280-64939

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64939	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0429ANXN
Dilution:	1.0	Leach Batch:	280-64766	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1257	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1315				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N-Soluble	0.93	U	99.2	97.67	98	90 - 110	

Duplicate - Batch: 280-64939

Method: 353.2
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64939	Instrument ID:	WC_Alp 2
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0429ANXN
Dilution:	1.0	Leach Batch:	280-64766	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 1256	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1315				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate Nitrite as N-Soluble	0.93	U	0.96	NC	10	U

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-64268

Method: 9045C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-64268/4	Analysis Batch:	280-64268	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:	04/26/2011 1711	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-64268/5	Analysis Batch:	280-64268	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:	04/26/2011 1712	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

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

Duplicate - Batch: 280-64268

Method: 9045C
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64268	Instrument ID:	WC_pH Probe
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	280-64191	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/26/2011 1714	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/26/2011 1538				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	10.7	10.73	0.09	5	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-64598/2-A	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	145.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0617	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Result	Qual	MDL	RL
Nitrate as N-Soluble	0.30	U	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: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-64945/14	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2116	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	0.202	101	50 - 150	B
Nitrite as N-Soluble	0.200	0.190	95	50 - 150	B
Orthophosphate as P-Soluble	0.200	0.19	60	50 - 150	U

Lab Control Sample - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-64598/1-A	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	144.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0600	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	49.0	49.82	102	90 - 110	
Nitrite as N-Soluble	49.0	50.52	103	90 - 110	
Orthophosphate as P-Soluble	49.0	46.10	94	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	148.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0707	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N-Soluble	0.82	U	131	127.8	97	80 - 120	
Nitrite as N-Soluble	0.87	U	131	129.0	98	80 - 120	
Orthophosphate as P-Soluble	3.2	U	131	3.3	0	80 - 120	U N

Duplicate - Batch: 280-64945

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64945	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	147.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0651	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Nitrate as N-Soluble	0.82	U	0.84	NC	15	U
Nitrite as N-Soluble	0.87	U	0.90	NC	15	U
Orthophosphate as P-Soluble	3.2	U	3.3	NC	15	U

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Method Blank - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	MB 280-64598/2-A	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	145.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0617	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

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: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	MRL 280-64946/14	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/28/2011 2116	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	1.07	107	50 - 150	B
Bromide-Soluble	0.200	0.186	93	50 - 150	B
Sulfate-Soluble	1.00	1.09	109	50 - 150	B
Fluoride-Soluble	0.200	0.201	100	50 - 150	B

Lab Control Sample - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	LCS 280-64598/1-A	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	144.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0600	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	245	249.1	102	90 - 110	
Bromide-Soluble	49.0	49.53	101	90 - 110	
Sulfate-Soluble	245	251.1	102	90 - 110	
Fluoride-Soluble	49.0	50.40	103	90 - 110	

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Matrix Spike - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	148.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0707	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Soluble	45.3		657	733.8	105	80 - 120	
Bromide-Soluble	1.0	U	131	127.7	97	80 - 120	
Sulfate-Soluble	593		657	1376	119	80 - 120	
Fluoride-Soluble	6.4	B	131	114.4	82	80 - 120	

Duplicate - Batch: 280-64946

Method: 9056M
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64946	Instrument ID:	WC_IC8
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	147.TXT
Dilution:	1.0	Leach Batch:	280-64598	Initial Weight/Volume:	1.0 mL
Analysis Date:	04/29/2011 0651	Units:	mg/Kg	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	04/28/2011 1314				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chloride-Soluble	45.3		47.04	4	15	
Bromide-Soluble	1.0	U	1.0	NC	15	U
Sulfate-Soluble	593		612.5	3	15	
Fluoride-Soluble	6.4	B	6.56	3	15	B

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-15022-1
Sdg Number: JP0167

Duplicate - Batch: 280-64159

Method: D-2216
Preparation: N/A

Lab Sample ID:	280-15022-1	Analysis Batch:	280-64159	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:	04/26/2011 1350	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	62.7	66.9	6	20	

5.0 FP NP 4/10

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-073-142	Page 1 of 1

Collector: M Brookshire	Company Contact: Joan Kessner	Telephone No.: 509-375-4688	Project Coordinator: KESSNER, JH
Price Code: ~~9L~~ 9B	Data Turnaround: ~~21~~ 7 Days		
Project Designation: 100-D/DR Burial Grounds & Remaining Sites - Other Quick	Sampling Location: 100-D-62		SAF No.: RC-073
Ice Chest No.: WCH-08-001-4	Field Logbook No.: EL-1607-10	COA: C00D622600	Method of Shipment: FED Ex
Shipped To: TestAmerica Incorporated, ~~Richland~~ DENVER	Offsite Property No.: NA		Bill of Lading/Air Bill No.: 7946 8845 0345

POSSIBLE SAMPLE HAZARDS/REMARKS

None

Special Handling and/or Storage

Cool 4 Deg C

Preservation	Cool 4C	None	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
Type of Container	G/P	G	G/P	G/P	aG	aG	aG	G/P		
No. of Container(s)	0	1	1	1	1	0	0	1		
Volume	60mL	125mL	60mL	60mL	250mL	250mL	250mL	60g		
SAMPLE ANALYSIS	See item (1) in Special Instructions.	See item (2) in Special Instructions.	Chromium Hex - 7196	IC Anions - 9056 Modified; NO2/NO3 - 353.1; pH - 9045	Semi-VOA - 8270A (TCL)	PCBs - 8082	Pesticides - 8081	RCF/GEA Shipping Screen		

Sample No.	Matrix *	Sample Date	Sample Time										
J1H230	OTHER	4/25/11	1230	X	X		X	X	X	X			
~~J1H231~~	OTHER												

CHAIN OF POSSESSION	Sign/Print Names		
Relinquished By/Removed From	Date/Time 4-25-11 1245	Received By/Stored In	Date/Time 4-25-11 12:45
Relinquished By/Removed From	Date/Time 4-25-11 13:35	Received By/Stored In	Date/Time 1335 4-25-11
Relinquished By/Removed From	Date/Time 1445 4-25-11	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time 4/26/11 930
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

None

(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}

REVIEWED BY JEB DATE 4-25-11

JP0167

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 - 60107 - 60112

Analytical Due:

Report Due: 5/3/11 (Rush 5 day TAT)

Sample Check-in List

Date/Time Received: 4/26/11 0930 GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: JP0167 NA[ ] SAF #: RC-073 NA [ ]

Job Number: 15022 Chain of Custody # RC-073-142

Shipping Container ID: WCH-08-001-4 Air Bill # 7946 8845 0345

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: 5.0 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:** 4/26/11

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on ____ by ____ Person Contacted ____

[ ] No action necessary; process as is.

Project Manager [signature] Date 4/27/11

From: (509) 375-4640 Origin ID: PSCA
WCH MAILROOM
WASHINGTON CLOSURE HANFORD
2620 FERMI AVE

RICHLAND, WA 99354

FedEx. Express

J11151102250225

Ship Date: 25APR11
ActWgt: 23.0 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

TUE - 26 APR A1
PRIORITY OVERNIGHT

TRK# 0201 7946 8845 0345

XH WHHA

80002
CO-US
DEN

50DG3/26A8/7EFB

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