0096793

SAF-RC-134
400 Area D4 Waste Characterization Sampling – Other Solid In-Process
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

No Distribution Required

COMMENTS:

SDG DC1105064 SAF-RC-134

Rad only ☑ Chem only Rad & Chem

☑ Complete Partial

Sample Location/Waste Site: 4701B, 4706

RECEIVED
MAY 31 2011
EDMC

16-May-2011

Joan Kessner
Washington Closure Hanford
2620 Fermi Avenue, MSIN H4-21
Richland, WA 99354

Tel: 509-375-4688
Fax: 509-372-9651

Re: 4701B; RD4MXX2F00

Work Order: **1105064**

Dear Joan,

ALS Environmental received 10 samples on 03-May-2011 11:16 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 14.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Anna Ristich

Electronically approved by: Anna Ristich

Anna Ristich
Project Manager

ALS Environmental

Date: 16-May-11

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00
Work Order: **1105064**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1105064-01	J1HN10	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-02	J1HN11	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-03	J1HN12	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-04	J1HN13	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-05	J1HN14	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-06	J1HN15	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-07	J1HN16	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-08	J1HN17	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-09	J1HN18	Bulk		4/28/2011	5/3/2011 11:16	☐
1105064-10	J1HN19	Bulk		4/28/2011	5/3/2011 11:16	☐

Estimates of concentration are made on an area basis.

Trace = <1%

Wherever possible, separate phases are analyzed and reported individually.

Floor tiles, decorative paints, joint compounds, and cement materials require additional treatment in order to evaluate the concentration of small asbestos fibers bound in the material. Some samples may contain fibers that are not visible by PLM and can only be detected by electron microscopy techniques. Floor tiles are analyzed as homogeneous materials if insufficient mastic is present or if phases have been cross contaminated.

The Federal Register Vol. 55, No. 224, Tuesday Nov. 20 1990 Rules and Regulations, as clarified by the memo of May 8, 1991, Clarification of Asbestos NESHAP Requirement to Perform Point Counting states "...if the analyst detects asbestos in the sample and estimates the amount by visual estimation to be less than 10%, the owner or operator of the building may (1) elect to assume the amount to be greater than 1% and treat the material as asbestos-containing material or (2) require verification of the amount by point counting." Any of the samples tested can be reanalyzed by point counting or an equivalent estimation technique at the client's request.

ALS Laboratory Group Environmental Divison (Cincinnati) NVLAP Lab ID: 101917. Laboratory accreditation by the National Institute of Standards and Technology does not in any way constitute approval or endorsement by NVLAP, NIST, or any agency of the federal government.

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-01A
Client Sample ID: J1HN10

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Yellow			
Description	Insulation			
Homogeneity	Layered			
Texture	Fibrous			
Other Materials			**E600/R-93/116**	
Cellulose	>1<=3	%		
Fiberglass	>90<=100	%		
Non-fibrous	ND	%		
Other fibers	ND	%		
Resin/binder	ND	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-02A
Client Sample ID: J1HN11

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Yellow			
Description	Insulation			
Homogeneity	Layered			
Texture	Fibrous			
Other Materials			**E600/R-93/116**	
Cellulose	>1<=3	%		
Fiberglass	>90<=100	%		
Non-fibrous	ND	%		
Other fibers	ND	%		
Resin/binder	ND	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-03A
Client Sample ID: J1HN12

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Grey			
Description	Material			
Homogeneity	Homogeneous			
Texture	Fibrous			
Other Materials			**E600/R-93/116**	
Cellulose	ND	%		
Fiberglass	>90<=100	%		
Non-fibrous	ND	%		
Other fibers	ND	%		
Resin/binder	ND	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-04A
Client Sample ID: J1HN13

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Grey			
Description	Material			
Homogeneity	Homogeneous			
Texture	Fibrous			
Other Materials			**E600/R-93/116**	
Cellulose	ND	%		
Fiberglass	>90<=100	%		
Non-fibrous	ND	%		
Other fibers	ND	%		
Resin/binder	ND	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-05A
Client Sample ID: J1HN14

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units	
Asbestos by PLM with Ashing			Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date: **5/16/2011**		**E600/R-93/116** Analyst: **SMS**
Color	Black		
Description	Roofing		
Homogeneity	Homogeneous		
Texture	Resinous		
Asbestiform Minerals			**E600/R-93/116**
Amosite	ND	%	
Anthophyllite	ND	%	
Chrysotile	60	%	
Crocidolite	ND	%	
Tremolite - actinolite	ND	%	
Total asbestos	**20.78**	**%**	

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-06A
Client Sample ID: J1HN15

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date: **5/16/2011**		**E600/R-93/116**	Analyst: **SMS**
Color	Grey			
Description	Transite			
Homogeneity	Homogeneous			
Texture	Compact/Fibrous			
Other Materials			**E600/R-93/116**	
Cellulose	ND	%		
Fiberglass	ND	%		
Non-fibrous	>70<=80	%		
Other fibers	ND	%		
Resin/binder	ND	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	>10<=20	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**>10<=20**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-07A
Client Sample ID: J1HN16

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Black			
Description	Material			
Homogeneity	Homogeneous			
Texture	Flexible			
Other Materials			**E600/R-93/116**	
Cellulose	ND	%		
Fiberglass	ND	%		
Non-fibrous	>60<=70	%		
Other fibers	ND	%		
Resin/binder	>20<=30	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-08A
Client Sample ID: J1HN17

Collection Date: 4/28/2011
Matrix: BULK

Analytical Results

Analyses	Result	Units		
Asbestos by PLM				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Orange			
Description	Material			
Homogeneity	Homogeneous			
Texture	Flexible			
Other Materials			**E600/R-93/116**	
Cellulose	ND	%		
Fiberglass	ND	%		
Non-fibrous	>60<=70	%		
Other fibers	ND	%		
Resin/binder	>20<=30	%		
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: *16-May-11*

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00

Work Order: 1105064

Lab ID: 1105064-09A
Client Sample ID: J1HN18

Collection Date: 4/28/2011
Matrix: BULK

Analyses	Result	Units		Analytical Results
Asbestos by PLM with Ashing				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Black			
Description	Roofing			
Homogeneity	Homogeneous			
Texture	Resinous			
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Lab ID: 1105064-10A
Client Sample ID: J1HN19

Collection Date: 4/28/2011
Matrix: BULK

Analyses	Result	Units		Analytical Results
Asbestos by PLM with Ashing				Date Analyzed **5/16/2011**
Macroscopic Examination	Prep Date:	**5/16/2011**	**E600/R-93/116**	Analyst: **SMS**
Color	Black/Brown			
Description	Roofing			
Homogeneity	Homogeneous			
Texture	Resinous/Fibrous			
Asbestiform Minerals			**E600/R-93/116**	
Amosite	ND	%		
Anthophyllite	ND	%		
Chrysotile	ND	%		
Crocidolite	ND	%		
Tremolite - actinolite	ND	%		
Total asbestos	**ND**	**%**		

Note:

ALS Environmental

Date: 16-May-11

Client: Washington Closure Hanford
Project: 4701B; RD4MXX2F00
WorkOrder: **1105064**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit

Units Reported	Description
%	

ALS Environmental

Sample Receipt Checklist

Client Name: **WASHINGTON-RICHLAND** Date/Time Received: **03-May-11 11:16**

Work Order: **1105064** Received by: **KMK**

Checklist completed by Kelsey Kennedy (eSignature) 03-May-11 (Date) Reviewed by: Jan Wilcox (eSignature) 04-May-11 (Date)

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☑	No ☐	Not Present ☐
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-134-19	Page 1 of 2

Collector Parrish	Company Contact W H Rodgers	Telephone No. 2062517439	Project Coordinator< KESSNER, JH	Price Code 9K	Data Turnaround 7 Days
Project Designation 400 Area D4 Waste Characterization Sampling - Other Solid	Sampling Location 4701B		SAF No. RC-134		
Ice Chest No. NA	Field Logbook No. EL-1518-19	COA RD4MXX2F00	Method of Shipment FEDEX		
Shipped To ALS Laboratories - Cincinnati	Offsite Property No. NA		Bill of Lading/Air Bill No. 7470 5090 9762		

POSSIBLE SAMPLE HAZARDS/REMARKS

Asbestos

Special Handling and/or Storage

None

Preservation	None										
Type of Container	G/P										
No. of Container(s)	1										
Volume	5g										
SAMPLE ANALYSIS	Asbestos-BULK-EPA										

Sample No.	Matrix *	Sample Date	Sample Time										
J1HN10	OTHER SOLID	4/28/11	1304	X									
J1HN11	OTHER SOLID		1310	X									
J1HN12	OTHER SOLID		1315	X									
J1HN13	OTHER SOLID		1318	X									
J1HN14	OTHER SOLID		1320	X									

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From: Jeff Parrish	1500 4-28-11	Sam Sexton	1500 4/28/11
Relinquished By/Removed From: Sam Sexton	1607 4/28/11	J. E. Rodgers	1607 4-28-11
Relinquished By/Removed From: J. E. Rodgers with	1045 5-2-11	Received By/Stored In: [illegible]	
Relinquished By/Removed From		Received By/Stored In: [illegible]	5-3-11
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

None

REVIEWED BY AT
DATE 5-2-11

Matrix *
S=Soil
SL=Sediment
SO=Solid
SU=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
	[illegible]		5-3-11 11:16

FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		RC-134-19	Page 2 of 2
Collector Parrish	Company Contact W H Rodgers	Telephone No. 2062517439	Project Coordinator KESSNER, JH	Price Code 9K Data Turnaround 7 Days
Project Designation 400 Area D4 Waste Characterization Sampling - Other Solid	Sampling Location 4701B, 4706		SAF No. RC-134	
Ice Chest No. NA	Field Logbook No. EL-1518-19	COA RD4MXX2F00	Method of Shipment FEDEX	
Shipped To ALS Laboratories - Cincinnati	Offsite Property No. NA		Bill of Lading/Air Bill No. 79705050 1762	

POSSIBLE SAMPLE HAZARDS/REMARKS

Asbestos

Special Handling and/or Storage

None

Preservation	None										
Type of Container	G/P										
No. of Container(s)	1										
Volume	5g										
SAMPLE ANALYSIS	Asbestos-BULK-EPA										

Sample No.	Matrix *	Sample Date	Sample Time										
J1HN15	OTHER SOLID	4/28/11	1324	X									
J1HN16	OTHER SOLID		1346	X									
J1HN17	OTHER SOLID		1355	X									
J1HN18	OTHER SOLID		1358	X									
J1HN19	OTHER SOLID		1401	X									

CHAIN OF POSSESSION		Sign/Print Names	
Relinquished By/Removed From Jeff Parrish	Date/Time 1500 4-28-11	Received By/Stored In Sean Sexton	Date/Time 1500 4/28/11
Relinquished By/Removed From Sean Sexton	Date/Time 1607 4/28/11	Received By/Stored In J. E. B[illegible]	Date/Time 1607 4-28-11
Relinquished By/Removed From J. E. [illegible] WCH	Date/Time 1045 5-2-11	Received By/Stored In Fed EX	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time

SPECIAL INSTRUCTIONS

None

REVIEWED BY AJ
DATE 5-2-11

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

LABORATORY SECTION	Received By Kaiser [illegible]	Title	Date/Time 5-3-11 11:16
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

WCH-EE-011