0072934

SAF-RC-040
300 Area D&D Waste Characterization Sampling - Other Solid
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Renee Nielson L1-01 KW 5/3/07
INITIAL/DATE

COMMENTS:

SDG 07I-0839-01 SAF-RC-040

Rad only X Chem only Rad & Chem

X Complete Partial

Sample Location/Waste Site: 308 Building

RECEIVED
MAY 29 2007
EDMC

Cover

RECEIVED MAY 2007

Report Identification Number: 07I-0839-01
Subcontract Number: 0000X-BO-G0058-B-Mod#14
Name of Industrial Hygienist: Gwen Whatley / William Brasker/ Robert Brounstein/ Ilene Strong
Laboratory Identification Number: DCHM
SAF#: RC-040 / A070178
Payroll#:

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
	J14YV9	07I05275	NMAM 9002	G073S018	BULK
	J14YV8	07I05276	NMAM 9002	G073S018	BULK

I certify that this electronic image and all hardcopies produced from this image accurately represent the data and are in compliance with the contract specific requirements, both technically and for completeness, other than the conditions detailed above or in the sample data package narrative. Release, by submission through email, the data contained in this electronic image and the computer-readable EDD (as applicable), has been authorized by the laboratory Manager or the Manager's designee.

Name: Peter P. Steen
Title: Chemist
Date: May 02, 2007

Case Narrative

Report Identification Number: 07I-0839-01
Subcontract Number: 0000X-BO-G0058-B-Mod#14
Name of Industrial Hygienist: Gwen Whatley / William Brasker/ Robert Brounstein/ Ilene Strong
Laboratory Identification Number: DCHM
SAF#: RC-040 / A070178
Payroll#:

General Set Information: There were a total of two samples in set 07I-0839-01 which were analyzed for asbestos in bulk material. No sampling date was submitted with these samples. No problems were encountered with the receipt of these samples.

Method Summary: All samples were examined for homogeneity. Non-homogeneous samples were ground to ensure homogeneity. Distinct layers were analyzed separately. The samples were prepared and examined for asbestos fibers utilizing the procedures outlined in NIOSH method 9002 (4th edition). A polarizing light microscope equipped with a 10x and a 16x eyepiece was used for the analysis. The area percentage of asbestos was estimated microscopically by a visual estimation of the fibers with a length-to-width aspect ratio of 3:1 or greater. If present, asbestos identities were confirmed with the appropriate refractive index oils applying dispersion staining techniques.

Sample Preparation: All samples were prepared in accordance with NIOSH method 9002 (4th edition).

Initial and Continuing Calibration Verification Analysis: N/A

Initial and Continuing Calibration Blank Analysis: N/A

Method Blank Analysis: N/A

Dilution(s): N/A.

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) was prepared and analyzed with the sample batch. The results were within the control limit of +/- one reporting range.

Replicate Analysis: One sample was replicated with this analysis run.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Case Narrative

Sample Calculation: Sample results are reported by a visual estimation of the area percentage of asbestos. If necessary, a gravimetric ashing procedure may be used to remove certain non-asbestos material from the sample; a percentage calculation is used to correct for the removal of the non-asbestos material.

Miscellaneous Comments:

07I05275: Gray, compacted floor tile with tan mastic. Asbestos was found in the floor tile while the mastic was ND.

07I05276: Whitish, powdery/fibrous wallboard material.

Results

Report Identification Number: 07I-0839-01
Subcontract Number: 0000X-BO-G0058-B-Mod#14
Name of Industrial Hygienist: Gwen Whatley / William Brasker/ Robert Brounstein/ Ilene Strong
Laboratory Identification Number: DCHM
SAF#: RC-040 / A070178
Payroll#:

ND

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Chrysotile % Asbestos		Amosite % Asbestos		Crocidolite % Asbestos	
J14YV9	07I05275	02 May 2007	5-<10		ND	U	ND	U
J14YV8	07I05276	02 May 2007	ND	U	ND	U	ND	U
Limit of Detection (LOD)			<1		<1		<1	
Required Detection Limit (RDL)								

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Actinolite/Tremolite % Asbestos		Anthophyllite % Asbestos	
J14YV9	07I05275	02 May 2007	ND	U	ND	U
J14YV8	07I05276	02 May 2007	ND	U	ND	U
Limit of Detection (LOD)			<1		<1	
Required Detection Limit (RDL)						

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

QC Summary

Report Identification Number: 07I-0839-01
Subcontract Number: 0000X-BO-G0058-B-Mod#14
Name of Industrial Hygienist: Gwen Whatley / William Brasker/ Robert Brounstein/ Ilene Strong
Laboratory Identification Number: DCHM
SAF: RC-040 / A070178
Payroll#:

Batch ID: G073S018

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
QC99765	LCS	CHRYSOTILE	%	5.0		4.0	125	
QC99765	LCSD	CHRYSOTILE	%	3.0		4.0	75	

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

DATA CHEM LABORATORIES

COC

Washington Closure Hanford	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	RC-040-258	Page 2 of 10
Collector: Mike Stankovich/Tim Lee	Company Contact: Tim Lee; Telephone No.: 373-4596	Project Coordinator: KESSNER, JH	Price Code: 9K; Data Turnaround: 7 Days
Project Designation: 300 Area D&D Waste Characterization Sampling - Other Soli	Sampling Location: 308 Building	SAF No.: RC-040	
Ice Chest No.: FED EX BOX	Field Logbook No.: EL-1518-; COA: See Below	Method of Shipment: Federal Express 07I-0839-01	
Shipped To: DataChem Laboratories ~~Cincinnati~~ Salt Lake City	Offsite Property No.: A070178	Bill of Lading/Air Bill No.: See OSPC	

POSSIBLE SAMPLE HAZARDS/REMARKS
Asbestos

Special Handling and/or Storage

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									
[redacted]	OTHER SOLID											
[redacted] 4/23/07	OTHER SOLID											
[redacted]	OTHER SOLID											
[redacted] J14YV7	OTHER SOLID		1320	X		07I05275						
J14YV8	OTHER SOLID		1310	X		L 76						

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From: M Stankovich; Date/Time: 4/23/07 1340	Received By/Stored In: 3728/1B; Date/Time: 4/23/07 1340	
Relinquished By/Removed From: 3728/1B; Date/Time: APR 24 2007 1230	Received By/Stored In: [illegible] Singleton; Date/Time: APR 24 2007 1230	
Relinquished By/Removed From: [illegible] Singleton; Date/Time: APR 24 2007 1500	Received By/Stored In: FED EX; Date/Time:	
Relinquished By/Removed From: [illegible]; Date/Time:	Received By/Stored In: [illegible]; Date/Time: 4/25/07 1000	
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
Laboratory Analysis, Data Management, and Shipping COA - RD4MXXZF00
Sampling COA - R30800 1000

Sampler unavailable to relinquish samples from 3728 Ref # 1B. 3728 Custodian removed samples for shipping on 4/24/07.

Matrix *: S=Soil; SD=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: [illegible]	Title:	Date/Time: 4/25/07 1000
FINAL SAMPLE DISPOSITION	Disposal Method:	Disposed By:	Date/Time:

WCH-EE-011

COC

Washington Closure Hanford 4/5/2007 3:49:13PM Page 1 of 3

Radiological Counting Facility

Analysis Report for RCF17586

J15001 SAF:RC-040 300PS/308BLDG. PACM 25 SAMPLES BAGGED TOGETHER

GAMMA SPECTRUM ANALYSIS

Sample Identification	: RCF17586
Sample Description	: J15001 SAF:RC-040 300PS/308BLDG. PACM 25 SAMPLES BAGGED TOGETHE
Sample Type	: 47 mm filter
Unit	:
Sample Point	
Sample Size	: 1.000E+00 units
Facility	: Default
Sample Taken On	: 4/5/2007 10:00:00PM
Acquisition Started	: 4/5/2007 1:48:50PM
Procedure	: 47 mm filter
Operator	: RGT
Detector Name	: PGTWHITE
Geometry	: 47 mm Filter
Live Time	: 7200.0 seconds
Real Time	: 7201.0 seconds
Dead Time	: 0.01 %
Peak Locate Threshold	: 3.00
Peak Locate Range (in channels)	: 40 - 4096
Peak Area Range (in channels)	: 40 - 4096
Identification Energy Tolerance	: 1.000 keV
Energy Calibration Used Done On	: 1/29/2007
Efficiency Calibration Used Done On	: 2/22/2007
Efficiency Calibration Description	: Efficiency calibration pgtwhite 47 mm filter
Sample Number	: 12817

QUALITATIVE ONLY

Non standard geometry

INTERFERENCE CORRECTED REPORT

Nuclide Name	Nuclide Id Confidence	Wt mean Activity (uCi/units)	Wt mean Activity Uncertainty	Comments
PB-212	0.712	2.72E-05	1.92E-06	
RA-226d	0.992	4.20E-05	2.30E-06	
TH-232d	0.441	1.08E-05	1.17E-06	

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

Analysis Report for RCF17586

J15001 SAF:RC-040 300PS/308BLDG. PACM 25 SAMPLES BAGGED TOGETHER

? = nuclide is part of an undetermined solution
X = nuclide rejected by the interference analysis
@ = nuclide contains energy lines not used in Weighted Mean Activity
d = identified by daughter product energy lines assumed to be in secular equilibrium.
Errors quoted at 1.000 sigma

UNIDENTIFIED PEAKS

Peak Locate Performed on : 4/5/2007 3:48:59PM
Peak Locate From Channel : 40
Peak Locate To Channel : 4096

Peak No.	Energy (keV)	Peak Rate (CPS)	Peak Rate (%) Uncertainty
1	46.41 Pb 210	9.38E-03	38.06
2	~~63.29~~ An Rad	1.05E-02	~~37.82~~
9	511.00	5.10E-03	58.19
12	934.16 Bi 214	2.67E-03	39.20
14	1377.91 Bi 214	3.73E-03	35.51

M = First peak in a multiplet region
m = Other peak in a multiplet region
F = Fitted singlet
Errors quoted at 1.000 sigma

NP = No Peak
UK = Unknown

NUCLIDE MDA REPORT

Nuclide Library Used : \\GOZER\ApexRoot\Default\Library\RCF UNKNOWN.NLB

Nuclide Name	Energy (keV)	Yield(%)	Activity (uCi/units)	Nuclide MDA (uCi/units)	Line MDA (uCi/units)
K-40	1460.83	10.67	2.09E-04	1.11E-04	1.11E-04
CO-60	1173.24	99.90	-3.84E-06	5.49E-06	5.49E-06
	1332.50	99.98	-1.55E-07		6.66E-06
NB-94	702.63	99.81	1.11E-06	4.76E-06	4.76E-06
	871.10	99.89	1.19E-06		5.03E-06
AG-108m	433.94	90.50	1.27E-06	3.92E-06	3.92E-06
	614.28	89.80	-7.71E-07		7.23E-06
	722.94	90.80	3.50E-06		5.44E-06
CS-137	661.66	85.21	2.12E-06	5.00E-06	5.00E-06
EU-152	121.78	28.40	3.72E-06	6.04E-06	6.04E-06
	344.29	26.60	-5.56E-06		1.12E-05
	964.11	14.50	1.05E-05		4.43E-05
	1408.00	20.80	2.43E-05		4.11E-05
EU-154	123.10	40.50	-8.88E-07	4.11E-06	4.11E-06
	723.36	19.70	5.26E-06		2.46E-05

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

DATA CHEM LABORATORIES

COC

Analysis Report for RCF17586

J15001 SAF:RC-040 300PS/308BLDG. PACM 25 SAMPLES BAGGED TOGETHER

	Nuclide Name	Energy (keV)		Yield(%)	Activity (uCi/units)	Nuclide MDA (uCi/units)	Line MDA (uCi/units)
		873.23		11.45	-8.16E-06		4.34E-05
		1004.78		17.90	6.78E-06		3.38E-05
		1274.54		35.50	-9.31E-06		1.65E-05
	EU-155	86.54		34.00	2.57E-06	5.53E-06	5.53E-06
		105.31		20.60	3.09E-07		7.64E-06
+	PB-212	74.81	*	10.50	2.98E-05	8.93E-06	1.46E-05
		77.11	*	17.70	2.61E-05		8.93E-06
		87.19		6.27	3.43E-05		3.05E-05
+	RA-226d	241.92	*	7.46	4.67E-05	8.16E-06	2.59E-05
		295.09	*	19.20	3.00E-05		1.34E-05
		351.87	*	37.10	3.70E-05		8.16E-06
		609.31	*	46.10	5.60E-05		1.19E-05
		1120.27	*	15.00	6.73E-05		3.77E-05
		1764.49	*	15.90	7.60E-05		3.89E-05
+	TH-232d	238.58	*	43.60	1.08E-05	4.41E-06	4.41E-06
		338.42		12.40	9.28E-06		2.52E-05
		583.02	*	30.87	1.10E-05		1.27E-05
		911.16		29.00	1.08E-05		2.33E-05
		968.97		17.40	4.39E-05		3.96E-05
	U-235	143.79		10.50	-1.32E-05	4.41E-06	1.73E-05
		163.38		4.70	-4.83E-06		4.44E-05
		185.74		53.00	5.60E-07		4.41E-06
		205.33		4.70	-2.77E-05		4.98E-05
	U-238d	63.29		3.80	5.01E-05	3.72E-05	4.80E-05
		92.56		5.41	8.18E-05		3.72E-05
	AM-241	59.54		35.70	-1.92E-06	4.40E-06	4.40E-06
	CM-243	99.52		14.40	-8.75E-07	6.78E-06	1.06E-05
		103.73		23.00	1.86E-06		6.78E-06
		116.93		8.32	7.21E-07		1.97E-05
		228.19		10.56	1.54E-05		2.29E-05
		277.60		14.00	1.21E-05		1.83E-05
	CM-245	99.52		21.10	-5.97E-07	4.64E-06	7.25E-06
		103.73		33.60	1.27E-06		4.64E-06
		116.93		12.20	4.92E-07		1.34E-05
		174.94		9.50	-1.15E-05		2.10E-05

+ = Nuclide identified during the nuclide identification
* = Energy line found in the spectrum
> = MDA value not calculated
@ = Half-life too short to be able to perform the decay correction

MARK J. KORNISH

APR 09 2007

DataChem Laboratories, Inc.
960 West Levoy Drive
Salt Lake City, Utah 84123-2547

Phone: (801) 266-7700
FAX: (801) 268-9992

Web Page: www.datachem.com
E-mail: lab@datachem.com

DATA CHEM LABORATORIES

COC