

SAF-RC-006
100-N Ancillary Facilities & 190-DR
Other Solid Sampling for ERDF Waste
Designation
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Tom Edmundson

X5-50

KW 10/15/08
INITIAL/DATE

COMMENTS:

SDG 08-AT-5529

SAF-RC-006

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site(s): 181-NA Guard Tower

RECEIVED
CST 20 2009
EDMC



10/14/08
Page 1 of 2

SUBMITTED TO:

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



REFERENCE DATA:

Client Sample No.:	J17K85-A
P.O. No.:	Not Available
Sample Location:	181- NA Guard Tower
Sample Type:	Bulk
Method Reference:	EPA-600/R-93/116
DCL Set ID No.:	08-A-5529
DCL Sample ID No.:	08-31110
Sample Receipt Date:	10/14/08
Analysis Date:	10/14/08

We certify that the following samples were prepared and analyzed by Polarized Light Microscopy for asbestos and other fibrous constituents using EPA-600/R-93/116. The samples were acceptable upon receipt except where noted. The samples were examined under a stereomicroscope in a laboratory fume hood for general composition and phase separation. If needed, portions of the sample were removed and ground with a mortar and pestle before being mounted on a glass microscope slide. Mountings of representative portions of the material are prepared in one or more appropriate refractive index liquids (1.550, 1.605, 1.680) and examined by Polarized Light Microscopy*. Estimates of concentration are made on an area basis. The results of the analysis apply only to the materials analyzed and are summarized on the attached bulk asbestos analysis data sheets. DataChem Laboratories will dispose of all bulk samples after 60 days unless other arrangements are made.


Shawn Smythe
Analyst


Anna Marie Ristich
Reviewer

*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.

DataChem Laboratories 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.

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10/14/08

**DataChem Laboratories
Polarized Light Microscopy
Asbestos Analytical Report**

Client: Washington Closure Hanford
Location: 181- NA Guard Tower
Set ID: 08-A-5529

Client Sample ID: J17K85-A
DCL Sample ID: 08-31110

Macroscopic Examination

Accepted/Rejected: Accepted
Homogeneity: Homog.
Color: Black
Texture: Resinous
Description: Mastic
Analysis: PLM

Asbestiform Minerals

% Chrysotile:
% Amosite:
% Crocidolite:
% Tremolite - Actinolite:
% Anthophyllite:
% Total Asbestos: ND

Other Materials

% Cellulose: >3 ≤ 5
% Fiberglass:
% Other Fibers:

% Resin/Binder: >70 ≤ 80
% Non Fibrous: >10 ≤ 20

ND = None Detected Trace = <1%

Special Prep Procedures: None.

*Notes: P. O. #: Not Available.



Shawn Smythe
Microscopist

All values are in area percent by visual estimate. The Federal Register Vol. 55 No. 224 Tuesday Nov. 20 1990 Rules and Regulations states "... If the asbestos content is estimated to be less than 10% by a method other than point counting, ... (the analysis) be repeated using the point counting technique by PLM." Any of the above samples can be reanalyzed by point counting at the client's request. Wherever possible, separate phases are analyzed and reported individually.



10/15/08
Page 1 of 2

SUBMITTED TO:

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

REFERENCE DATA

Client Sample Nos.:	J17K85-A
P.O. Number:	Not Available
Sample Location:	181- NA Guard Tower
Sample Type:	Bulk
Method Reference:	EPA/600/R-93/116, Asbestos by TEM
DCL Set ID No.:	08-T-5529
DCL Sample ID Nos.:	08-31110
Date Received:	10/14/2008
Preparation Date:	10/14/2008
Analysis Date:	10/15/2008

We certify that the samples indicated on the following data sheet(s) were analyzed by Transmission Electron Microscopy (TEM) using the method, EPA/600/R-93/116, for determining the amount and type of asbestos present in bulk building materials. After an initial examination by stereomicroscope and/or polarized light microscopy, representative portions of the samples were ground with a mortar and pestle, suspended in acetone or other solvents, then mounted on a TEM grid for analysis. Analysis was performed on a Philips CM-12 TEM with EDAX Genesis System. Selected area electron diffraction (SAED) patterns and EDXA spectra were used to determine fiber species. Estimates of asbestos concentration are made on an area basis. Representative EDXA spectra of asbestos types detected are included. Results apply only to portions of samples analyzed and are tabulated on the following data sheet(s). DataChem Laboratories will dispose of bulk samples after 60 days unless other arrangements are made.



Angela Sohn
Analyst



Anna Marie Ristich
Section Manager

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DataChem Laboratories
TEM Bulk Asbestos Test Report

DCL Sample Set ID: 08-T-5529
Client: Washington Closure Hanford
Sample Location: 181- NA Guard Tower

ANALYSIS DATA

Calibration Date:	9/26/2008	Magnification:	9,970 X
EDXA Resolution:	152.73 eV	Calibration Constant:	1 cm = 1.00 μm
Accelerating Voltage:	100 keV	Camera Constant:	31.97 mm- \AA

SAMPLE ID

Client Sample ID	J17K85-A
DCL Sample ID	08-31110

MACROSCOPIC EXAMINATION

Accepted/Rejected	Accepted
Homogeneity	Homog.
Color	Gray
Texture	Compact
Description	Tile

ASBESTIFORM MINERALS

% Chrysotile	
% Amosite	
% Crocidolite	
% Tremolite - Actinolite	
% Anthophyllite	
% TOTAL ASBESTOS	ND

NOTES: ND = None Detected TRACE = <1%



Angela Sohn
Analyst



Anna Marie Ristich
Section Manager

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Washington Closure Hanford 10/14/08			CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-006-179		Page 1 of 1			
Collector			Company Contact Tom Edmundson		Telephone No. 947-5192		Project Coordinator KESSNER, JH		Price Code 9K		Data Turnaround	
Project Designation 100-N Ancillary Facilities & 190-DR Other Solid Sampling f			Sampling Location 181-NA Guard Tower		SAF No. RC-006						7 Days 3 day TCE/107a	
Ice Chest No. N/A			Field Logbook No. EL-1516-13		COA RD4MXX2F00		Method of Shipment Govt Vehicle EXP FED EX					
Shipped To Data Chem. Cinc Waste Sampling & Characterization 10-13-08 20082141			Offsite Property No. NA		Bill of Lading/Air Bill No. NA, FEB 11-13-08 7906 0168 8277							
POSSIBLE SAMPLE HAZARDS/REMARKS Potential Asbestos			Preservation		None							
Special Handling and/or Storage NA			Type of Container		G/P							
			No. of Container(s)		1							
			Volume		10g							
SAMPLE ANALYSIS			Asbestos- BULK-EPA TEM									
Sample No.			Matrix *		Sample Date		Sample Time					
J17K85 W081002S27 08-3110			OTHER SOLID		10-9-08		1500		✓			
CHAIN OF POSSESSION			Sign/Print Names				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From Tom Edmundson 10-9-08 1600			Received By/Stored In TA Frazzini 10-9-08 1600								<ul style="list-style-type: none"> S=Solid SE=Sediment SO=Solid Sl=Sludge W = Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Time W=Wipe L=Liquid V=Vegetation X=Other 	
Relinquished By/Removed From Storage 10/10/08 0857			Received By/Stored In K.L. Thomas/M. Thomas 10/10/08 0857									
Relinquished By/Removed From Storage 1138			Received By/Stored In SO Bolling 10/13/08									
Relinquished By/Removed From SO Bolling 10/13/08 1138			Received By/Stored In J.E. Bernthal 10-13-08									
Relinquished By/Removed From J.E. Bernthal 10-13-08 1400			Received By/Stored In FED EX									
Relinquished By/Removed From			Received By/Stored In Steve Wilson 10/14/08 10:30									
LABORATORY SECTION		Received By Steve Wilson		Title		Date/Time 10/14/08 10:30						
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time						