

WSCF0627

**WSCF**  
**ANALYTICAL LABORATORY REPORT**  
**ANALYSIS OF BULK SAMPLES FOR FIBER CONTENT**

for

**Bechtel Hanford, Inc.**  
**MSIN H0-25**  
**Richland, WA 99352**

**Attention: J. Kessner MSIN: H0-25**

**Survey ID J00688-J00691**

**Data Validator**



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**Group#: 20021390**  
**Report Date 14-oct-2002**  
bulk/rev.4

**Fluor Hanford, Inc.**  
**MSIN: S3-28**  
**Richland, WA 99352**

**Phone 373-7403**

Page 1/5

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**WSCF**  
**ANALYTICAL LABORATORY REPORT**  
**ANALYSIS OF BULK SAMPLES FOR FIBER CONTENT**

Your samples have been analyzed for fiber content using polarized light microscopy and dispersion staining in accordance with Industrial Hygiene Laboratory Procedure LA-519-403, based on 40 CFR Part 763, Subpart E, App. E and EPA method EPA/600/R-93/116. The results are attached.

This method provides a visual estimate of the percentage of each fiber type present. It is a semiquantitative method intended to identify materials containing  $>$  or  $=$  1% asbestos fibers.\* Reported fiber percentages for samples and sample layers are based on the samples as received by the laboratory. The laboratory cannot verify that these values are representative of the original material sampled.

The Waste Sampling and Characterization Facility is accredited by the American Industrial Hygiene Association (AIHA) to analyze bulk samples for asbestos content. This accreditation does not constitute approval or endorsement of analytical results by AIHA.

If there are questions concerning this report, please contact the data validator listed on the cover page of this report.

\* Because of the nonhomogeneous nature of soils, results will be reported using the following terms rather than percentages:

1. None - No asbestos fibers found.
2. Trace detectable - With extensive searching, a few fibers of the type indicated were found; concentration very low, well below 1%.
3. Obvious presence - Fibers easily found but overall concentration still low.
4. Significant presence - Fibers readily found; overall concentration may approach or exceed 1% level.

Polarized light microscopy (PLM) may not be the preferred method for identification of asbestos in floor tile. Most vinyl floor tiles marketed in the late sixties to mid-seventies contained asbestos milled so fine as to be below detection limits for PLM techniques. Tiles of that vintage, showing any detectable asbestos fibers should be considered to be asbestos-containing material. Non-detection of asbestos by PLM should not be considered conclusive proof that the tiles do not contain asbestos. Follow-up analysis by other techniques may be required.

Page 2/5

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# WSCF ANALYTICAL LABORATORY REPORT

Attention: J. Kessner MSIN: H0-25

Group #: 20021390

Sample #	Client ID	Test Performed	Range	Result	Units	Analyst	Sampled	Received	Analyzed
W021002476	J00688	<u>The following are the results of this test- Bulk Asbestos Layer 1</u>							
			Chrysotile Asbestos	2-5	%	sdb	10/11/02	10/14/02	10/14/02
		SAMPLE COMMENT--- Non-homogeneous black tar with some tan granular, reportedly							
		SAMPLE COMMENT--- from 100-NR-1.							
W021002477	J00689	<u>The following are the results of this test- Bulk Asbestos Layer 1</u>							
			Cellulose	<	1	%	sdb	10/11/02	10/14/02
			Fiberglass		1-3	%	sdb	10/11/02	10/14/02
			Chrysotile Asbestos		2-5	%	sdb	10/11/02	10/14/02
		SAMPLE COMMENT--- Non-homogeneous black tar with tan granular, reportedly from							
		SAMPLE COMMENT--- 100-NR-1.							
W021002478	J00690	<u>The following are the results of this test- Bulk Asbestos Layer 1</u>							
			Cellulose	<	1	%	sdb	10/11/02	10/14/02
			Fiberglass	<	1	%	sdb	10/11/02	10/14/02
		SAMPLE COMMENT--- Non-homogeneous long, wide strip of black vinyl-like							
		SAMPLE COMMENT--- material with tan granular material, reportedly from							
		SAMPLE COMMENT--- 100-NR-1. No asbestos was found in this portion of							
		SAMPLE COMMENT--- sample.							

RDL - Reporting Detection Limit RDL is  $\geq 2 \times$  MDL  
 RQ = Result Qualifier J - Estimated value.

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 Bechtel Hanford, Inc.

# WSCF ANALYTICAL LABORATORY REPORT

Attention: J. Kessner MSIN: H0-25

Group #: 20021390

Sample #	Client ID	Test Performed	Range	Result	Units	Analyst	Sampled	Received	Analyzed
W021002479	J00691	The following are the results of this test- Bulk Asbestos Layer 1							
		Cellulose	<	1	%	sdb	10/11/02	10/14/02	10/14/02
		SAMPLE COMMENT--- Non-homogeneous black pieces of hard, brittle tar with tan granular material, reportedly from 100-NR-1. No asbestos was found in this portion of sample.							

RDL - Reporting Detection Limit RDL is  $\geq 2 \times$  MDL  
 RQ=Result Qualifier J - Estimated value.

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# WSCF ANALYTICAL COMMENT REPORT

Attention: J. Kessner MSIN: H0-25

Group #: 20021390

Sample #	Client ID	Lab Area	Test	Comment
W021002476	J00688	VALGROUP LOGSAMP		Validated 10/14/02 by SD Bolling, IH Technical Manager. Received and logged by SD Bolling 10/14/02. Samples acceptable upon receipt.
		TESTDATA	Bulk Asbestos Layer 1	Non-homogeneous black tar with some tan granular, reportedly from 100-NR-1.
W021002477	J00689	TESTDATA	Bulk Asbestos Layer 1	Non-homogeneous black tar with tan granular, reportedly from 100-NR-1.
W021002478	J00690	TESTDATA	Bulk Asbestos Layer 1	Non-homogeneous long, wide strip of black vinyl-like material with tan granular material, reportedly from 100-NR-1. No asbestos was found in this portion of sample.
W021002479	J00691	TESTDATA	Bulk Asbestos Layer 1	Non-homogeneous black pieces of hard, brittle tar with tan granular material, reportedly from 100-NR-1. No asbestos was found in this portion of sample.

Lab Areas: VALGROUP - Group Validation  
LOGSAMP - Login for Sample

VALTEST - Test Validation  
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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20021396

<b>Bechtel Hanford Inc.</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>				B00-005-19	Page 1 of 1	
Collector R Kerkow/ D Shea		Company Contact R Kerkow		Telephone No. 372-2187		Project Coordinator KESSNER, JH		
Project Designation Industrial Hygiene Sampling - Other Solid		Sampling Location 100 NR-1		SAF No. B00-005		Price Code Data Turnaround Business Days		
Ice Chest No.		Field Logbook No. EL 1524-2		COA R1301N2600		Method of Shipment GOVERNMENT VEHICLE		
Shipped To Waste Sampling & Characterization		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS POTENTIALLY RADIOACTIVE			Preservation	None				
Special Handling and/or Storage NONE			Type of Container	aG				
			No. of Container(s)	1				
			Volume	60ml.				
SAMPLE ANALYSIS			Asbestos (Asbestos fibers)					
Sample No.	Matrix *	Sample Date	Sample Time					
J00688 / W02I 002476	OTHER SOLID	10/11/02	0832Z	✓				
<b>CHAIN OF POSSESSION</b>				<b>SPECIAL INSTRUCTIONS</b>			Matrix * S=Soil SE=Soilment SD=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue Wt=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By/Removed From DWShea DWShea		Date/Time 10/11/02 0756		Received By/Stored In W02I sample RMSA		Date/Time 10/11/02 0956		
Relinquished By/Removed From 100 BC Sample RMSA		Date/Time 10/14/02 0725		Received By/Stored In DWShea DWShea		Date/Time 10/14/02 0725		
Relinquished By/Removed From DWShea DWShea		Date/Time 10/14/02 0755		Received By/Stored In SD Belling Stacy		Date/Time 10/14/02 0755		
Relinquished By/Removed From SD Belling Stacy		Date/Time 10/14/02 1300		Received By/Stored In Stacy		Date/Time		
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		
<b>LABORATORY SECTION</b>		Received By Stacy D Belling		Title IH Technical Mgr.		Date/Time 10/14/02 0755		
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method		Disposed By		Date/Time		

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-005-20	Page 1 of 1	
Collector R Kerkow/ D Shea		Company Contact R Kerkow		Telephone No. 372-2187		Project Coordinator KESSNER, JH	Price Code	Data Turnaround
Project Designation Industrial Hygiene Sampling - Other Solid		Sampling Location 100 NR-1		SAF No. B00-005		Air Quality <input type="checkbox"/>	Business De	
Ice Chest No.		Field Logbook No. EL 1524-2		COA R1301N2600		Method of Shipment GOVERNMENT VEHICLE		
Shipped To Waste Sampling & Characterization		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS POTENTIALLY RADIOACTIVE			Preservation	None				
Special Handling and/or Storage NONE			Type of Container	aG				
			No. of Container(s)	1				
			Volume	60ml				
SAMPLE ANALYSIS			Asbestos (Asbestos fibers)					
Sample No.	Matrix *	Sample Date	Sample Time					
J00689 / W02J00247	OTHER SOLID	10/11/02	0728	✓				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From DWShea DWShea		Date/Time 10/14/02 0956		Received By/Stored In 100 BC sample RMSA		Date/Time 10/14/02 0956		<ul style="list-style-type: none"> <li>S=Soil</li> <li>SE=Settlement</li> <li>SO=Solid</li> <li>SL=Sludge</li> <li>W=Water</li> <li>O=Oil</li> <li>A=Air</li> <li>DS=Drum Solids</li> <li>DL=Drum Liquids</li> <li>T=Tissue</li> <li>W=Wipe</li> <li>L=Liquid</li> <li>V=Vegetation</li> <li>X=Other</li> </ul>
Relinquished By/Removed From 100 BC sample RMSA		Date/Time 10/14/02 0725		Received By/Stored In DWShea DWShea		Date/Time 10/14/02 0725		
Relinquished By/Removed From DWShea DWShea		Date/Time 10/14/02 0755		Received By/Stored In SD Boling, Stacy OBB		Date/Time 10/14/02 0755		
Relinquished By/Removed From SD Boling, Stacy OBB		Date/Time 10/14/02 1300		Received By/Stored In Storage		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		
LABORATORY SECTION				Received By IH Technical Mgr				Date/Time 10/14/02 0755
FINAL SAMPLE DISPOSITION				Disposal Method				Date/Time

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-005-21		Page 1 of 1		
Collector R Kerkow/ D Shea		Company Contact R Kerkow		Telephone No. 372-2187		Project Coordinator KESSNER, JH		Price Code Data Turnaround		
Project Designation Industrial Hygiene Sampling - Other Solid		Sampling Location 100 NR-1		SAF No. B00-005		Air Quality <input type="checkbox"/>		Business Days		
Ice Chest No.		Field Logbook No. EL 1524-2		COA R1301N2600		Method of Shipment GOVERNMENT VEHICLE				
Shipped To Waste Sampling & Characterization		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A						
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> POTENTIALLY RADIOACTIVE  <b>Special Handling and/or Storage</b> NONE				Preservation		None				
				Type of Container		aG				
				No. of Container(s)		1				
				Volume		60mL				
<b>SAMPLE ANALYSIS</b>				Asbestos (Asbestos fibers)						
Sample No.		Matrix *	Sample Date	Sample Time						
J00690 / W02I002478		OTHER SOLID	10/11/02	0832	✓					
<b>CHAIN OF POSSESSION</b>				<b>Sign/Print Names</b>				<b>SPECIAL INSTRUCTIONS</b>		<b>Matrix *</b>
Relinquished By/Removed From DWShea DWShea		Date/Time 10/11/02 0956		Received By/Stored In WDRB Sample RMSA		Date/Time 10/11/02 0956		W/O DB3021 FAX RESULTS TO: R KERKOW 372-8655  S=Soil SE=Soil/Matrix SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue W=Wipe L=Liquid V=Vegetation X=Other		
Relinquished By/Removed From WDRB Sample RMSA		Date/Time 10/11/02 0725		Received By/Stored In DWShea DWShea		Date/Time 10/11/02 0725				
Relinquished By/Removed From DWShea DWShea		Date/Time 10/14/02 0755		Received By/Stored In SO Balling Steve D. Balling		Date/Time 10/14/02 0755				
Relinquished By/Removed From SO Balling Steve D. Balling		Date/Time 10/14/02 1300		Received By/Stored In Storage		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				
<b>LABORATORY SECTION</b>		Received By Steve D. Balling		Title IH Technical Mgr		Date/Time 10/14/02 0755				
<b>FINAL SAMPLE DISPOSITION</b>		Disposal Method		Disposed By		Date/Time				

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-005-22	Page 1 of 1	
Collector R Kerkow/ D Shea		Company Contact R Kerkow		Telephone No. 372-2187	Project Coordinator KESSNER, JH	Price Code	Data Turnaround	
Project Designation Industrial Hygiene Sampling - Other Solid		Sampling Location 100 NR-1		SAF No. B00-005	Air Quality <input type="checkbox"/>	Business De		
Ice Chest No.		Field Logbook No. EL 1524-2	COA R1301N2600		Method of Shipment GOVERNMENT VEHICLE			
Shipped To Waste Sampling & Characterization		Offsite Property No. N/A		Bill of Lading/Air Bill No. N/A				
POSSIBLE SAMPLE HAZARDS/REMARKS <i>POTENTIALLY RADIOACTIVE</i>		Preservation	None					
Special Handling and/or Storage <i>NONE</i>		Type of Container	aG					
		No. of Container(s)	1					
		Volume	60mL					
		Asbestos (Asbestos fibers)						
SAMPLE ANALYSIS								
Sample No.	Matrix *	Sample Date	Sample Time					
J00691 / W02I 00247	OTHER SOLID	10/11/02	0834	✓				
CHAIN OF POSSESSION		Sign/Print Names		SPECIAL INSTRUCTIONS				Matrix *
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time		<ul style="list-style-type: none"> <li>S=Soil</li> <li>SE=Settlement</li> <li>SO=Solid</li> <li>SL=Sludge</li> <li>W=Water</li> <li>O=Oil</li> <li>A=Air</li> <li>DS=Drum Solids</li> <li>DL=Drum Liquids</li> <li>T=Tissue</li> <li>WI=Wipe</li> <li>L=Liquid</li> <li>V=Vegetation</li> <li>X=Other</li> </ul>
DWShea DWShea		10/11/02 0956		100 BC Sample RMSA		10/11/02 0956		
100 BC Sample RMSA		10/14/02 0725		DWShea DWShea		10/14/02 0725		
DWShea DWShea		10/14/02 0955		SDBelling Steg		10/14/02 755		
SDBelling Steg		10/14/02 1300		SDBelling Steg		10/14/02		
SDBelling Steg		10/14/02		SDBelling Steg		10/14/02		
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		
LABORATORY SECTION		Received By		Title		Date/Time		
FINAL SAMPLE DISPOSITION		Disposal Method		Dispos(d)By		Date/Time		
		Steg O Belli		IH Technical Mgr.		10/14/02 755		