

**SAF-RC-189**  
**100N Field Remediation –**  
**Soil Full Protocol**  
**FINAL DATA PACKAGE**

**COMPLETE COPY OF DATA PACKAGE TO:**

Kathy Wendt H4-21

KW 10/29/12  
INITIAL/DATE

**COMMENTS:**

**SDG MA05723**

**SAF-RC-189**

Rad only

Chem only

Rad & Chem

Complete

Partial

**Sample Location: 116-N-2 Verification**

## Asbestos PLM Cover Sheet

TestAmerica Laboratories, Inc.

Sample Date: October 17, 2012  
Receipt Date: October 18, 2012  
Reporting Date: October 26, 2012  
SDG #: MA05723  
SAF#: RC-189  
Data Deliverable: 7 Day Turn

Customer Sample Number	Laboratory Sample Number	Analytical Batch Identification	Sample Matrix
J1R436	MW15H	2294012	SOIL
J1R437	MW15J	2294012	SOIL
J1R438	MW15K	2294012	SOIL
J1R439	MW15L	2294012	SOIL
J1R440	MW15M	2294012	SOIL
J1R441	MW15N	2294012	SOIL
J1R442	MW15P	2294012	SOIL
J1R443	MW15Q	2294012	SOIL
J1R444	MW15R	2294012	SOIL
J1R445	MW15T	2294012	SOIL
J1R446	MW15V	2294012	SOIL
J1R447	MW15W	2294012	SOIL
J1R448	MW15X	2294012	SOIL
J1R449	MW150	2294012	SOIL
J1R450	MW151	2294012	SOIL
J1R451	MW152	2294012	SOIL
J1R452	MW153	2294012	SOIL

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. 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 following signature.

Reviewed and approved:



Dennis O'Neill  
Project Manager

We certify that the following samples were prepared by Polarized Light Microscopy for asbestos and other fibrous constituents using TestAmerica's procedure, RL-ASB-002. The samples were acceptable upon receipt except where noted. Mountings of fibers observed and representative portions of the material were 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 portions of materials analyzed and are summarized on the attached Asbestos PLM analysis data sheet. TestAmerica will dispose of all bulk samples after 60 days unless other arrangements are made.

\*Some samples may contain fibers that are not visible by PLM and can only be discovered by electron microscopy techniques.

**TA Richland  
Asbestos PLM**

Analyst:	D. Pefty	SOP Information	Method	Batch #	2294012
Analyst Signature:	<i>DP</i>	RL-ASB-002	NIOSH 9002	SDG #	MA05723
Date:	10/25/12	Revision 2			
<b>Macroscopic Examination</b>					
<b>Sample ID</b>	<b>MW15H1AA</b>	<b>MW15J1AA</b>	<b>MW15K1AA</b>	<b>MW15L1AA</b>	<b>MW15M1AA</b>
<b>Client ID</b>	J1R436'	J1R437'	J1R438'	J1R439'	J1R440'
Sample Description	soil and stones				
Homogeneous	N	N	N	N	N
Color	brown/gray	brown/gray	brown/gray	black/gray	black/gray
% Visible Fibers	0	0	0	0	0
<b>PLM Analysis</b>					
<b>Asbestiform Minerals</b>					
% Chrysotyle	ND	ND	ND	ND	ND
% Amosite	ND	ND	ND	ND	ND
% Crocidolite	ND	ND	ND	ND	ND
% Tremolite	ND	ND	ND	ND	ND
% Actinolite	ND	ND	ND	ND	ND
% Anthophyllite	ND	ND	ND	ND	ND
<b>% Total Asbestos</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>
<b>Other Materials</b>					
% Cellulose	ND	ND	ND	TRA	ND
% Glass Fibers	ND	ND	ND	ND	ND
% Other fibers	ND	ND	ND	ND	ND
% Non-fibrous	100	100	100	100	100

**Comments:**

Note: "ND" stands for "None Detected". "TRA" stands for "<1%"

**TA Richland  
Asbestos PLM**

Analyst:	D. Petty	SOP Information	Method	Batch #	2294012_2
Analyst Signature:	<i>[Signature]</i>	RL-ASB-002	NIOSH 9002	SDG #	MA05723
Date:	10/25/12	Revision 2			
<b>Macroscopic examination</b>					
Sample ID	MW15N1AA	MW15P1AA	MW15Q1AA	MW15R1AA	MW15T1AA
Client ID	J1R441'	J1R442'	J1R443'	J1R444'	J1R445'
Sample Description	soil	soil and stones	soil and stones	soil and stones	soil and stones
Homogeneous	Y	N	N	N	N
Color	brown	brown/gray	black/gray	black/gray	brown/gray
% Visible Fibers	0	TRA	0	0	0
<b>PLM Analysis</b>					
<b>Asbestiform Minerals</b>					
% Chrysotyle	ND	ND	ND	ND	ND
% Amosite	ND	ND	ND	ND	ND
% Crocidolite	ND	ND	ND	ND	ND
% Tremolite	ND	ND	ND	ND	ND
% Actinolite	ND	ND	ND	ND	ND
% Anthophyllite	ND	ND	ND	ND	ND
<b>% Total Asbestos</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>
<b>Other Materials</b>					
% Cellulose	ND	ND	ND	TRA	ND
% Glass Fibers	ND	ND	ND	ND	ND
% Other fibers	ND	ND	ND	ND	ND
% Non-fibrous	100	100	100	100	100

**Comments:**

**Note:** "ND" stands for "None Detected". "TRA" stands for "<1%"

**TA Richland  
Asbestos PLM**

Analyst:	D. Petty	SOP Information	Method	Batch #	2294012_3
Analyst Signature:	<i>[Signature]</i>	RL-ASB-002	NIOSH 9002	SDG #	MA05723
Date:	10/25/12	Revision 2			
<b>Macroscopic examination</b>					
Sample ID	MW15V1AA	MW15W1AA	MW15X1AA	MW1501AA	MW1511AA
Client ID	J1R446'	J1R447'	J1R448'	J1R449'	J1R450'
Sample Description	tar, soil and stones	soil and stones	soil and stones	soil and stones	soil and stones
Homogeneous	N	N	N	N	N
Color	black/gray	black/gray	black/gray	black/gray	brown/gray
% Visible Fibers	0	0	0	0	0
<b>PLM Analysis</b>					
<b>Asbestos Minerals</b>					
% Chrysotyle	ND	ND	ND	ND	ND
% Amosite	ND	ND	ND	ND	ND
% Crocidolite	ND	ND	ND	ND	ND
% Tremolite	ND	ND	ND	ND	ND
% Actinolite	ND	ND	ND	ND	ND
% Anthophyllite	ND	ND	ND	ND	ND
<b>% Total Asbestos</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>
<b>Other Materials</b>					
% Cellulose	TRA	ND	ND	ND	ND
% Glass Fibers	ND	ND	ND	ND	ND
% Other fibers	ND	ND	ND	ND	ND
% Non-fibrous	100	100	100	100	100

**Comments:**

**Note:** "ND" stands for "None Detected". "TRA" stands for "<1%"

**TA Richland  
Asbestos PLM**

Analyst:	D. Petty	SOP Information	Method	Batch #	2294012 4
Analyst Signature:	<i>[Signature]</i>	RL-ASB-002	NIOSH 9002	SDG #	MA05723
Date:	10/25/12	Revision 2			
<b>Sample ID</b>					
	MW1521AA	MW1531AA			
<b>Client ID</b>					
	J1R451'	J1R452'			
<b>Macroscopic examination</b>					
Sample Description	soil and stones	soil and stones			
Homogeneous	N	N			
Color	black/gray	brown/gray			
% Visible Fibers	0	0			
<b>PLM Analysis</b>					
<b>Asbestiform Minerals</b>					
% Chrysotyle	ND	ND			
% Amosite	ND	ND			
% Crocidolite	ND	ND			
% Tremolite	ND	ND			
% Actinolite	ND	ND			
% Anthophyllite	ND	ND			
<b>% Total Asbestos</b>	<b>ND</b>	<b>ND</b>			
<b>Other Materials</b>					
% Cellulose	ND	ND			
% Glass Fibers	ND	ND			
% Other fibers	ND	ND			
% Non-fibrous	100	100			

**Comments:**

**Note:** "ND" stands for "None Detected". "TRA" stands for "<1%"



Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-189-136		Page 2 of 4	
Collector Q. Stowe		Company Contact Joan Kessner		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 8L Data Turnaround 7 Days	
Project Designation 100N Field Remediation - Soil Full Protocol		Sampling Location 116-N-2 Verification		SAF No. RC-189					
Ice Chest No. NA		Field Logbook No. EL-1652-07		COA R116N22000		Method of Shipment Hand Deliver			
Shipped To Test America Richland (IH)		Offsite Property No. NA		Bill of Lading/Air Bill No. NA					
POSSIBLE SAMPLE HAZARDS/REMARKS Potential Rad				Preservation	None				
Special Handling and/or Storage				Type of Container	G/P				
J2J180451				No. of Container(s)	1				
MA05723 Due 10-25-12 SAMPLE ANALYSIS				Volume	250mL				
				Asbestos-Bulk - NIOSH 9002					
Sample No.	Matrix *	Sample Date	Sample Time						
J1R441 mw15N	SOIL	10-17-12	0945	X	34697				
J1R442 mw15P	SOIL	10-17-12	1000	Y					
J1R443 mw15Q	SOIL	10-17-12	1022	Y					
J1R444 mw15R	SOIL	10-17-12	1040	Y	34698				
J1R445 mw15T	SOIL	10-17-12	1045	X					
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *	
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Quincy Stowe		10/17/12 1520		Dennis Newman		10/17/12 1520			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
Dennis Newman		10/17/12 1743		C. Bingham		10/17/12 1743			
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time			
C. Bingham		10/18/12 1540		J. Book		10/18/12 1540			
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	Disposed By				Date/Time			



Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-189-136		Page 3 of 4											
Collector Q. Stowe		Company Contact Joan Kessner		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code 8L Data Turnaround 7 Days											
Project Designation 100N Field Remediation - Soil Full Protocol		Sampling Location 116-N-2 Verification		SAF No. RC-189															
Ice Chest No. NA		Field Logbook No. EI-1652-07		COA R116N22000		Method of Shipment Hand Deliver													
Shipped To Test America Richland (IH)		Offsite Property No. NA		Bill of Lading/Air Bill No. NA															
POSSIBLE SAMPLE HAZARDS/REMARKS Potential Rad				Preservation	None														
Special Handling and/or Storage				Type of Container	G/P														
				No. of Container(s)	1														
				Volume	250mL														
J25180451 MA05723 Due 10-25-12				SAMPLE ANALYSIS		Asbestos-Bulk - NIOSH 9002													
Sample No.	Matrix *	Sample Date	Sample Time																
J1R446	mw15V	10-17-12	1057	X	34699														
J1R447	mw15W	10-17-12	1148	X															
J1R448	mw15X	10-17-12	1105	X															
J1R449	mw15O	10-17-12	1127	X															
J1R450	mw15I	10-17-12	1121	X															
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS						Matrix *					
Relinquished By/Removed From		Date/Time		Received By/Stored In		Date/Time								S=Soil SE=Sediment SO=Solid SL=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WJ=Wipe L=Liquid V=Vegetation X=Other					
Quincy Stowe		10/17/12 1520		Dennis Newman		10/17/12 1520													
Dennis Newman		10/17/12 1743		Dennis Newman		10/17/12 1743													
Dennis Newman		10/18/12 1540		S. Ball		10-18-12 1540													
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		Disposed By								Date/Time							

Washington Closure Hanford		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-189-136		Page 4 of 4										
Collector Q. Stowe		Company Contact Joan Kessner		Telephone No. 375-4688		Project Coordinator KESSNER, JH		Price Code <b>8L</b> Data Turnaround <b>7 Days</b>										
Project Designation 100N Field Remediation - Soil Full Protocol		Sampling Location 116-N-2 Verification		SAF No. RC-189														
Ice Chest No. <i>NA</i>		Field Logbook No. EL-1652-07		COA R116N22000		Method of Shipment Hand Deliver												
Shipped To Test America Richland (IH)		Offsite Property No. <i>NA</i>		Bill of Lading/Air Bill No. <i>NA</i>														
POSSIBLE SAMPLE HAZARDS/REMARKS <i>Potential Rad</i>				Preservation	None													
Special Handling and/or Storage				Type of Container	G/P													
<i>J25180451</i>				No. of Container(s)	1													
<i>MA05123</i> <i>Dec 10-25-12</i>				Volume	250mL													
SAMPLE ANALYSIS				Asbestos-Bulk - NIOSH 9002														
Sample No.	Matrix *	Sample Date	Sample Time															
J1R451 <i>mw152</i>	SOIL	<i>10-17-12</i>	<i>1139</i>	<i>X</i>														
J1R452 <i>mw153</i>	SOIL	<i>10-17-12</i>	<i>1000</i>	<i>X</i>														
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS						Matrix *				
Relinquished By/Removed From <i>Quincy Stowe</i>		Date/Time <i>10/17/12</i>	Received By/Stored In <i>Dennis Newman</i>		Date/Time <i>10/17/12</i>							<ul style="list-style-type: none"> <li>S=Soil</li> <li>SE=Sediment</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>						
Relinquished By/Removed From <i>Dennis Newman</i>		Date/Time <i>10/17/12</i>	Received By/Stored In <i>John Bingham</i>		Date/Time <i>10/17/12</i>													
Relinquished By/Removed From <i>John Bingham</i>		Date/Time <i>10/17/12</i>	Received By/Stored In <i>John Bingham</i>		Date/Time <i>10/17/12</i>													
Relinquished By/Removed From <i>John Bingham</i>		Date/Time <i>10/18/12</i>	Received By/Stored In <i>J. Beck</i>		Date/Time <i>10/18/12</i>													
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		Disposed By								Date/Time						