SDMS US EPA Region V

Imagery Insert Form

Document ID: 167813

Some images in this document may be illegible or unavailable in SDMS. Please see reason(s) indicated below:

[X] Illegible due to bad source documents. Image(s) in SDMS is equivalent to hard copy.

Specify Type of Document(s) / Comments:

CHAIN OF CUSTODY RECORDS , APPENDIX D - PHOTO DOCUMENTATION; ANALYTICAL FORMS

[ ] Includes ____ COLOR or ____ RESOLUTION variations.
Unless otherwise noted, these pages are available in monochrome. The source document page(s) is more legible than the images. The original document is available for viewing at the Superfund Records Center.

Specify Type of Document(s) / Comments:

[ ] Confidential Business Information (CBI).
This document contains highly sensitive information. Due to confidentiality, materials with such information are not available in SDMS. You may contact the EPA Superfund Records Manager if you wish to view this document.

Specify Type of Document(s) / Comments:

[ ] Unscannable Material:
Oversized _____ or _____ Format.
Due to certain scanning equipment capability limitations, the document page(s) is not available in SDMS. The original document is available for viewing at the Superfund Records center.

Specify Type of Document(s) / Comments:

[ ] Document is available at the Records Center .

Specify Type of Document(s) / Comments:

Rev. 07/10/02

167813 J.5

U.S. Army Corps of Engineers
Omaha District

U.S. Environmental Protection Agency
Region V

RECEIVED
ERD-SUPERFUND

Allied Paper/Portage Creek/Kalamazoo River Superfund Site

Kalamazoo, Michigan

Appendices: C1 through N (June '98 - July '98)

January 2000

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION V
Emergency Response Branch, Chicago, IL

U.S. ARMY CORPS OF ENGINEERS, OMAHA DISTRICT
Fort Crook Area Rapid Response Resident Office

WESTON
Roy F. Weston, Inc.
Vernon Hills, Illinois

APPENDIX C1

CHAIN OF CUSTODY
(HAUL ROADS)

KEMRON
ENVIRONMENTAL SERVICES

96694

CHAIN-OF-CUSTODY RECORD

Page _____ of _____.

Project Contact: Hal Blakemore

Turn Around Requirements: Standard

Project No.: | Project Name: Allied Paper

Sampler (print): Hal Blakemore | Signature: Hal Blakemore

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB's	TSS	Turbidity	Temperature	ADDITIONAL REQUIREMENTS
HR-GS-001		✓	9/29/98	1100	Soil				X				
HR-GS-002		✓	9/29/98	1200	Soil				X				
HR-GS-003		✓	9/29/98	1400	Soil				X				
HR-GS-004		✓	9/29/98	1415	Soil				X				
HR-GS-005		✓	9/29/98	1430	Soil				X				
HR-GS-005D		✓	9/29/98	1430	Soil				X				
HR-GS-006		✓	9/29/98	1500	Soil				X				
HR-GS-007		✓	9/29/98	1520	Soil				X				
HR-GS-008		✓	9/29/98	1620	Soil				X				
HR-GS-009		✓	9/29/98	1695	Soil				X				
HR-GS-010		✓	9/29/98	1700	Soil	MS/MSD			X				MS/MSD
HR-GS-011		✓	9/29/98	1715	Soil				X				
HR-GS-012		✓	9/29/98	1730	Soil				X				
HR-RB-001		✓	9/29/98	1745	water				X				
PWN-CP-001	✓		9/29/98	1800	water				X	X	X		
PWS-CP-001	✓		9/29/98	1745	water				X	X	X		
TMP-0001			9/30/98	1100								X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Hal Blakemore	10/5/98						

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Revised COC Correcting stream Samples Client ID #. HB

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

SU709 [illegible]

Page 1 of ~~3~~ 4

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.: 97267L

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	ADDITIONAL REQUIREMENTS
[illegible]		X	[illegible]	[illegible]	[illegible]		1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	10/13/98	1:15					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all co[illegible] amples prior to analysis

White – Lab Yel[illegible] [illegible]ice Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

356

Page 2 of 2

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5 DAYS

Project No.: 972671

Project Name: [illegible] SUPERFUND

Sampler (print): HAL BLAKEMORE

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	ADDITIONAL REQUIREMENTS
AR-CP-02	X	X	10/15/98	18:00			1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	10/15/98	18:30					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						ACCESS ROAD SAMPLING

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

S.860

Project Contact: HAL Blakemore

Turn Around Requirements: 5-Day

Project No.: 97567L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB	ADDITIONAL REQUIREMENTS
HR-GS-013		X	10/11/[illegible]	11:[illegible]	[illegible]		1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	10/11/98	1800					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Roadway between [illegible] 5 and 6 scraped after [illegible] moved material

*Homogenize all co[illegible] samples prior to analysis

White – Lab Ye[illegible] [illegible]ffice Pink – Field

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5-Day

Project No.: 97267L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): Hal Blakemore

Signature: [signature]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB														ADDITIONAL REQUIREMENTS
HR-CP-014	X		10 17-98	14:30	soil		1		X														
TMP-013		X	10-19-98	17:40	water		1			X													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						ACCESS ROAD SAMPLING

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

.877

Project Contact: Hal Blakemore

Turn Around Requirements: [illegible]

Project No.: [illegible]

Project Name: Kalamazoo River Superfund Site

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol* CWA	Protocol* SW846	NUMBER OF SAMPLES	Hold	PCBs	ADDITIONAL REQUIREMENTS
HR-CP-15	X		[illegible]	1500	Soil		1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all c[illegible] samples prior to analysis

White – Lab Ye[illegible] ffice Pink – Field

KENTRON ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.: | Project Name: [illegible]

Sampler (print): [illegible] | Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	ADDITIONAL REQUIREMENTS
[illegible]	X		[illegible]	[illegible]	[illegible]				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

[illegible]

S .315

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]																ADDITIONAL REQUIREMENTS
[illegible]	X		[illegible]	[illegible]	[illegible]				X																
[illegible]	X		[illegible]	[illegible]	[illegible]				X																

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all co[illegible] samples prior to analysis

White – Lab Yel[illegible] [illegible]ice Pink – Field

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	ADDITIONAL REQUIREMENTS
[illegible]	X		[illegible]	[illegible]	[illegible]				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible] 98	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Contact:

Turn Around Requirements:

Project No.: Project Name:

Sampler (print): Signature:

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold		ADDITIONAL REQUIREMENTS
	MW-C1-19	X			1510						
										X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - [illegible] Pink - Field

WES[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page [illegible] of [illegible]

Project Contact:

Turn Around Requirements:

Project No.: Project Name:

Sampler (print): Signature:

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	[illegible]	ADDITIONAL REQUIREMENTS
	[illegible]	X		[illegible]	[illegible]	[illegible]				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	1715					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - Office Pink - Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Contact:

Turn Around Requirements: ~~[illegible]~~ STANDARD 5 DAY.

Project No.: Project Name:

Sampler (print): Signature:

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold		ADDITIONAL REQUIREMENTS
	~~[illegible]~~										
	[illegible]	X		[illegible]	[illegible]	Soil				X	
	[illegible]	X		[illegible]	[illegible]	Soil				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - Pink - Field

WES[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Project Contact:

Turn Around Requirements:

Project No.: | Project Name:

Sampler (print): | Signature:

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold		ADDITIONAL REQUIREMENTS
		X								X	
		X								X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - Office Pink - Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

1.09

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.: | Project Name: [illegible]

Sampler (print): [illegible] | Signature:

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	[illegible]	ADDITIONAL REQUIREMENTS
	[illegible]	X		[illegible]	[illegible]	[illegible]		1		X	
	[illegible]					1				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - [illegible] Pink - Field

WES.. .N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Contact:

Turn Around Requirements:

Project No.: | Project Name:

Sampler (print): | Signature:

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold															ADDITIONAL REQUIREMENTS
		X																						
										X														

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - Office Pink - Field

WEST[illegible] MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page _____ of _____

Project Contact:

Turn Around Requirements:

Project No.: Project Name:

Sampler (print): Signature:

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold																ADDITIONAL REQUIREMENTS
		X	X																						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - Office Pink - Field

WES[illegible]RN MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.: Project Name: [illegible]

Sampler (print): [illegible] Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	[illegible]	[illegible]	ADDITIONAL REQUIREMENTS
	[illegible]-F		X	[illegible]	[illegible]	[illegible]				X		
	[illegible]		X		[illegible]					X		
	[illegible]-F		X		[illegible]					X		
	[illegible]-F		X		[illegible]					X		
	[illegible]-F		X		[illegible]					X		
	[illegible]		X		[illegible]		X			X		
	[illegible]		X		[illegible]					X		
	[illegible]-FD		X		[illegible]					X		
	Trip- [illegible]		X	[illegible]	[illegible]	[illegible]					X	
	HR-GS-001-F		X		1020	Soil						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - [illegible] Pink - Field

WEST .N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Project Contact: David Ennis

Turn Around Requirements: 5 - day

Project No.: | Project Name: Kalamazoo River Superfund

Sampler (print): David Ennis | Signature: David M. S.

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	VOC's	PCB's	ADDITIONAL REQUIREMENTS
	2NS-SP-02		X	8-25-94	1230	Soil		2		X		
	HR-GS-005-ST		X		1050			1			X	
	HR-GS-006-ST		X		1055			1			X	
	HR-GS-007-ST		X		1100			1			X	
	HR-GS-014-ST		X		1105			1			X	
	HR-GS-012-ST		X		1110			1			X	
	HR-GS-010-ST		X		1115			1			X	
	HR-GS-011-ST		X		1120			1			X	
	HR-GS-004-ST		X	↓	1125	↓		1			X	
	HR-GS-W6-ST		X	"	1300	Soil		1			X	
	HR-GS-X-ST		X	X	1300	Soil		1			X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
David M. S.	8-25-94	1230					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - Or Pink - Field

APPENDIX C2

HAUL ROAD ANALYTICAL DATA

HAUL ROAD ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	PCB (mg/kg)
HR-GS-001	Haul Road	9/29/98	Kemron	ND
HR-GS-002	Haul Road	9/29/98	Kemron	ND
HR-GS-003	Haul Road	9/29/98	Kemron	0.018
HR-GS-004	Haul Road	9/29/98	Kemron	0.047
HR-GS-005	Haul Road	9/29/98	Kemron	0.16
HR-GS-005D	Haul Road	9/29/98	Kemron	0.2
HR-GS-006	Haul Road	9/29/98	Kemron	0.066
HR-GS-007	Haul Road	9/29/98	Kemron	0.046
HR-GS-008	Haul Road	9/29/98	Kemron	0.083
HR-GS-009	Haul Road	9/29/98	Kemron	ND
HR-GS-010	Haul Road	9/29/98	Kemron	ND
HR-GS-011	Haul Road	9/29/98	Kemron	ND
HR-GS-012	Haul Road	9/29/98	Kemron	0.037
HR-RB-001	Haul Road	9/29/98	Kemron	ND
AR-GS-001	Access Road	10/12/98	Kemron	0.12
AR-CP-02	Access Road	10/15/98	Kemron	ND
HR-GS-013	Haul Road	10/16/98	Kemron	ND
HR-GS-014	Haul Road	10/17/98	Kemron	0.68
HR-CP-015	Haul Road	10/24/98	Western Michigan	ND
HR-CP-016	Haul Road	11/11/98	Western Michigan	0.086
HR-CP-017	Haul Road	11/18/98	Western Michigan	0.22
HR-CP-018	Haul Road	11/18/98	Western Michigan	2.5
HR-CP-018B	Haul Road	11/20/98	Western Michigan	0.23
HR-CP-19	Haul Road	11/25/98	Western Michigan	ND
HR-CP-20	Haul Road	12/7/98	Western Michigan	1.3
HR-NG-01	Haul Road	12/8/98	Western Michigan	ND
HR-SG-01	Haul Road	12/8/98	Western Michigan	ND
HR-CP-21	Haul Road	12/19/98	Western Michigan	3.1
HR-CP-21D	Haul Road	12/19/98	Western Michigan	3.1
HR-CP-21B	Haul Road	1/27/99	Western Michigan	2.2
HR-CP-21BD	Haul Road	1/27/99	Western Michigan	2.3
HR-CP-21C	Haul Road	2/5/99	Western Michigan	2.1
HR-CP-22	Haul Road	2/17/99	Western Michigan	0.66
HR-GS-001-F	Haul Road	5/7/99	Western Michigan	0.68
HR-GS-002-F	Haul Road	5/7/99	Western Michigan	0.63
HR-GS-008-F	Haul Road	5/7/99	Western Michigan	0.22
HR-GS-009-F	Haul Road	5/7/99	Western Michigan	0.9
HR-GS-011-F	Haul Road	5/7/99	Western Michigan	0.9
HR-GS-012-F	Haul Road	5/7/99	Western Michigan	0.64
HR-GS-013-F	Haul Road	5/7/99	Western Michigan	0.88
HR-GS-013-FD	Haul Road	5/7/99	Western Michigan	0.7
HR-GS-014-F	Haul Road	5/7/99	Western Michigan	0.65
HR-GS-004-ST	Haul Road	8/25/99	Western Michigan	1.2
HR-GS-005-ST	Haul Road	8/25/99	Western Michigan	ND
HR-GS-006-ST	Haul Road	8/25/99	Western Michigan	ND
HR-GS-007-ST	Haul Road	8/25/99	Western Michigan	0.12
HR-GS-010-ST	Haul Road	8/25/99	Western Michigan	0.25
HR-GS-011-ST	Haul Road	8/25/99	Western Michigan	0.29
HR-GS-012-ST	Haul Road	8/25/99	Western Michigan	0.28
HR-GS-014-ST	Haul Road	8/25/99	Western Michigan	0.33
HR-GS-W6-ST	Haul Road	8/25/99	Western Michigan	0.072
HR-GS-X-ST	Haul Road	8/25/99	Western Michigan	0.22

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

Login #: L9810019
Report Date: 10/08/98
Work ID: KALAMAZOO RIVER
Date Received: 10/01/98

PO Number:
Account Number: WESTON-472

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810019-01	HR-GS-001	L9810019-02	HR-GS-002
L9810019-03	HR-GS-003	L9810019-04	HR-GS-004
L9810019-05	HR-GS-005	L9810019-06	HR-GS-005D
L9810019-07	HR-GS-006	L9810019-08	HR-GS-007
L9810019-09	HR-GS-008	L9810019-10	HR-GS-009
L9810019-11	HR-GS-010	L9810019-12	HR-GS-011
L9810019-13	HR-GS-012	L9810019-14	HR-RB-001
L9810019-15	PWN-CP-001	L9810019-16	PWS-CP-001

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

HAUL Round
1ST Round

16:33 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 2/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-01
Client Sample ID: HR-GS-001
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 97

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 020R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		77.1	(29 - 133%)		
	Decachlorobiphenyl		92.6	(30 - 173%)		

Lab Sample ID: L9810019-01
Client Sample ID: HR-GS-001
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1100

% Solid: 97
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	97		1.0	1	N/A	DRM	10/06/98	12:00	D2216-90

RL = Reporting Limit

16:34 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 3/18

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-02
Client Sample ID: HR-GS-002
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 97

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 026R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	70.6	(29 - 133%)
Decachlorobiphenyl	83.4	(30 - 173%)

Lab Sample ID: L9810019-02
Client Sample ID: HR-GS-002
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1200

% Solid: 97
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% Wt.	97		1.0	1	N/A	DKM	10/06/98	12:00	D2216-90

RL = Reporting Limit

16:36 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 4/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-03
Client Sample ID: HR-GS-003
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 027R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	18		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	77.1	(29 - 133%)
Decachlorobiphenyl	88.2	(30 - 173%)

Lab Sample ID: L9810019-03
Client Sample ID: HR-GS-003
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1400

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:00	D2216-90

RL = Reporting Limit

16:37 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 5/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-04
Client Sample ID: HR-GS-004
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 95

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 028R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	47		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	35	1
11096-82-5	Aroclor-1260	ug/kg		ND	35	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	76.4	(29 - 133%)
Decachlorobiphenyl	91.3	(30 - 173%)

Lab Sample ID: L9810019-04
Client Sample ID: HR-GS-004
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1415

% Solid: 95
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	95		1.0	1	N/A	DRM	10/06/98	12:00	D2216-90

RL = Reporting Limit

15:38 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4635 #1871 PAGE: 6/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID:	L9810019-05	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	HR-GS-005	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	KALAMAZOO RIVER		
Matrix:	Soil	Date Collected: 09/29/98	% Solid: 92
TCLP Extract Date:	N/A	Instrument: HP4	Method: 8082\3550
Extract Date:	10/02/98	Analyst: ECL	Run ID: R53651
Analysis Date:	10/04/98 Time:	Lab File ID: 029R0101	Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	18	1
11104-28-2	Aroclor-1221	ug/kg		ND	18	1
11141-16-5	Aroclor-1232	ug/kg		ND	18	1
53469-21-9	Aroclor-1242	ug/kg		ND	18	1
12672-29-6	Aroclor-1248	ug/kg	160		18	1
11097-69-1	Aroclor-1254	ug/kg		ND	36	1
11096-82-5	Aroclor-1260	ug/kg		ND	36	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	71.5	(29 - 133%)
Decachlorobiphenyl	80.5	(30 - 173%)

Lab Sample ID:	L9810019-05	Matrix: Soil	% Solid: 92
Client Sample ID:	HR-GS-005	Collected: 09/29/98 1430	COC Info: N/A
Site/Work ID:	KALAMAZOO RIVER		

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	92		1.0	1	N/A	DKM	10/06/98	12:00	D2216-90

RL = Reporting Limit

16:39 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1571 PAGE: 7/18

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-06
Client Sample ID: HR-GS-005D
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 030R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	200		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	73.8	(29 - 133%)
Decachlorobiphenyl	85.7	(30 - 173%)

Lab Sample ID: L9810019-06
Client Sample ID: HR-GS-005D
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1430

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:00	D2216-90

RL = Reporting Limit

16:40 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4635 #1671 PAGE: 8/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-07
Client Sample ID: HR-G3-006
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 031R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	66		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	78.2	(29 - 133%)
Decachlorobiphenyl	89.8	(30 - 173%)

Lab Sample ID: L9810019-07
Client Sample ID: HR-GS-006
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1500

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:00	D2216-90

RL = Reporting Limit

16:42 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 9/18

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-08
Client Sample ID: HR-GS-007
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 032R0101

Method: 8082\3550
Run ID: R53651
Batch : WC47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	46		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	72.4	(29 - 133%)
Decachlorobiphenyl	97.8	(30 - 173%)

Lab Sample ID: L9810019-08
Client Sample ID: HR-GS-007
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1520

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:10	D2216-90

RL = Reporting Limit

16:43 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1671 PHASE: 10/18

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-09
Client Sample ID: HR-GS-008
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 033R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg	83		34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	71.1	(29 - 133%)
Decachlorobiphenyl	97.4	(30 - 173%)

Lab Sample ID: L9810019-09
Client Sample ID: HR-GS-008
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1620

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:10	D2216-90

RL = Reporting Limit

16:44 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1671 PAGE: 11/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-10
Client Sample ID: HR-GS-009
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 93

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 035R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	18	1
11104-28-2	Aroclor-1221	ug/kg		ND	18	1
11141-16-5	Aroclor-1232	ug/kg		ND	18	1
53469-21-9	Aroclor-1242	ug/kg		ND	18	1
12672-29-6	Aroclor-1248	ug/kg		ND	18	1
11097-69-1	Aroclor-1254	ug/kg		ND	35	1
11096-82-5	Aroclor-1260	ug/kg		ND	35	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	69.7	(29 - 133%)
Decachlorobiphenyl	88.3	(30 - 173%)

Lab Sample ID: L9810019-10
Client Sample ID: HR-GS-009
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1645

% Solid: 93
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	93		1.0	1	N/A	DKM	10/06/98	12:10	D2216-90

RL = Reporting Limit

16:45 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 12/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-11
Client Sample ID: HR-GS-010
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 036R0101

Method: 8082\3550
Run ID: R53651
Batch : WC47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	78.0	(29 - 133%)
Decachlorobiphenyl	87.1	(30 - 173%)

Lab Sample ID: L9810019-11
Client Sample ID: HR-GS-010
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1700

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:10	D2216-90

RL = Reporting Limit

16:46 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 13/18

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-12
Client Sample ID: HR-GS-011
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 97

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 037R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	74.4	(29 - 133%)
Decachlorobiphenyl	89.1	(30 - 173%)

Lab Sample ID: L9810019-12
Client Sample ID: HR-GS-011
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1715

% Solid: 97
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	97		1.0	1	N/A	DKM	10/06/98	12:10	D2216-90

RL = Reporting Limit

16:47 OCT 08, 1998 ID: KENRON ENVIRON ENTAL TEL NO: 740-373-4835 #1871 PAGE: 14/18

Login #L9810019
October 8, 1998 04:11 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810019-13
Client Sample ID: HR-GS-012
Site/Work ID: KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 98

TCLP Extract Date: N/A
Extract Date: 10/02/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 038R0101

Method: 8082\3550
Run ID: R53651
Batch : WG47005

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	37		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	68.5	(29 - 133%)
Decachlorobiphenyl	86.7	(30 - 173%)

Lab Sample ID: L9810019-13
Client Sample ID: HR-GS-012
Site/Work ID: KALAMAZOO RIVER

Matrix: Soil
Collected: 09/29/98 1730

% Solid: 98
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	98		1.0	1	N/A	DKM	10/06/98	12:10	D2216-90

RL = Reporting Limit

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810019-14
Client Sample ID: HR-RB-001
Site/Work ID: KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/03/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 046R0101

Method: 8082\3510C
Run ID: R53650
Batch : WG47006

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248	ug/L		ND	0.11	1.1
11097-69-1	Aroclor-1254	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260	ug/L		ND	0.11	1.1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		46.8	(13 - 154%)		
	Decachlorobiphenyl		45.9	(25 - 140%)		

Lab Sample ID: L9810019-15
Client Sample ID: PWN-CP-001
Site/Work ID: KALAMAZOO RIVER

Matrix: Water
Collected: 09/29/98 1800

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids	mg/L	25		5.0	1	N/A	DLN	10/04/98	20:10	160.2
Turbidity	NTU	5.0		0.10	1	N/A	DLP	10/01/98	13:45	180.1

RL = Reporting Limit

16:50 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 16/18

Login #L9810307
October 21, 1998 04:19 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810307-01
Client Sample ID: AR-GS-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/12/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 96

TCLP Extract Date: N/A
Extract Date: 10/17/98
Analysis Date: 10/18/98 Time: 16:45

Instrument: HP7
Analyst: CDB
Lab File ID: 010R0101

Method: 8082\3550
Run ID: R54366
Batch : W347870

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg	120		17	1
11097-69-1	Aroclor-1254	ug/kg		ND	34	1
11096-82-5	Aroclor-1260	ug/kg		ND	34	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	42.9	(29 - 133%)
Decachlorobiphenyl	64.5	(30 - 173%)

Lab Sample ID: L9810307-01
Client Sample ID: AR-GS-001
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/12/98 0900

% Solid: 96
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	96		1.0	1	N/A	DKM	10/20/98	14:30	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 21 Oct 98 4:54PM;Job 92; Page 4/4

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

PO Number:
Account Number: WESTON-472

Login #: L9810365
Report Date: 10/19/98
Work ID: 97267L/KALAMAZOO RIVER
Date Received: 10/16/98

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810365-01	AR-CP-02		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 20 Oct 98 10:04AM;Job 4; Page 2/4

Login #L9810365
October 19, 1998 01:21 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810365-01	Dil. Type: N/A	Sample Weight: N/A	
Client Sample ID: AR-CP-02	COC Info: N/A	Extract Volume: N/A	
Site/Work ID: 972671/KALAMAZOO RIVER			
Matrix: Soil	Date Collected: 10/15/98	% Solid: 95	
TCLP Extract Date: N/A	Instrument: HP7	Method: 8082\3550	
Extract Date: 10/17/98	Analyst: CDB	Run ID: R54366	
Analysis Date: 10/18/98 Time: 16:21	Lab File ID: 009R0101	Batch : WG47870	

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	35	1
11096-82-5	Aroclor-1260	ug/kg		ND	35	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		49.9	(29 - 133%)		
	Decachlorobiphenyl		71.6	(30 - 173%)		

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 20 Oct 98 10:05AM; Oct 4; Page 3/4

Login #L9810365
October 19, 1998 01:21 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810365-01
Client Sample ID: AR-CP-02
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/15/98 1800

% Solid: 95
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	95		1.0	1	N/A	DLN	10/16/98	11:00	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 20 Oct 98 10:06AM; Job 4; Page 4/4

Login #L9810391
October 26, 1998 12:33 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810391-01
Client Sample ID: HR-GS-013
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/16/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 95

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/21/98 Time: 23:28

Instrument: HP10
Analyst: CDB
Lab File ID: 015F0101

Method: 8082\3550
Run ID: R54766
Batch : WG47985

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	35	1
11096-82-5	Aroclor-1260	ug/kg		ND	35	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		66.7	(29 - 133%)		
	Decachlorobiphenyl		76.1	(30 - 173%)		

Lab Sample ID: L9810391-01
Client Sample ID: HR-GS-013
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/16/98 1155

% Solid: 95
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	95		1.0	1	N/A	DIH	10/19/98	15:05	D2216-90

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 26 Oct 98 12:59PM;Job 241;Page 4/4

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

Login #: L9810416
Report Date: 10/27/98
Work ID: 97267L/KALAMAZOO RIVER
Date Received: 10/20/98

PO Number:
Account Number: WESTON-472

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810416-01	HR-CP-014		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON ENVIRONMENTAL SERVICES

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 27 Oct 98 10:08AM;Job 281;Page 2/4

Login #L9810416
October 27, 1998 09:30 am

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810416-01
Client Sample ID: HR-CP-014
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 10/17/98

% Solid: 89

TCLP Extract Date: N/A
Extract Date: 10/23/98
Analysis Date: 10/24/98 Time: 15:38

Instrument: HP10
Analyst: CDB
Lab File ID: 054R0101

Method: 8082\3550
Run ID: R54962
Batch : WG48272

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	19	1
11104-28-2	Aroclor-1221	ug/kg		ND	19	1
11141-16-5	Aroclor-1232	ug/kg		ND	19	1
53469-21-9	Aroclor-1242	ug/kg		ND	19	1
12672-29-6	Aroclor-1248	ug/kg	680	D	93	5
11097-69-1	Aroclor-1254	ug/kg		ND	37	1
11096-82-5	Aroclor-1260	ug/kg		ND	37	1

SURROGATES- In Percent Recovery:

2,4,5,6 Tetrachloro-m-xylene	66.1	(29 - 133%)
Decachlorobiphenyl	71.9	(30 - 173%)

Lab Sample ID: L9810416-01
Client Sample ID: HR-CP-014
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/17/98 1430

% Solid: 89
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	89		1.0	1	N/A	DKM	10/22/98	12:00	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 27 Oct 98 10:11AM;Job 281;Page 4/4

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: October 26, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray (TBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 24, 1998.

Sample ID: HR-CP-15 **Lab ID:** 9810301-01 **Collected:** 10/24/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	10/24/98	date completed		HL	EPA 3665	
Florisil Cleanup	10/24/98	date completed		HL	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	10/24/98	DGK		330
PCB-1221	ND	µg/kg dry wt	10/24/98	DGK		330
PCB-1232	ND	µg/kg dry wt	10/24/98	DGK		330
PCB-1242	ND	µg/kg dry wt	10/24/98	DGK		330
PCB-1248	ND	µg/kg dry wt	10/24/98	DGK		330
PCB-1254	ND	µg/kg dry wt	10/24/98	DGK		330
PCB-1260	ND	µg/kg dry wt	10/24/98	DGK		330
Total PCBs	ND	µg/kg dry wt	10/24/98	DGK		1,000
Prep by Sonication	10/24/98	prep. date		HL	EPA 3550	
Silica Gel Cleanup	10/24/98	date completed		HL	EPA 3630	
Sulfur Cleanup	10/24/98	date completed		HL	EPA 3660	
Total Solids	93.7	% of sample		DGK	APHA 2540 B.	

BDL = Below Detection Limit
ND = Not Detected

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 12, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Sahray, Laboratory Manager

DATE RECEIVED: Received from client on November 11, 1998.

Sample ID: ER-CP-16 **Lab ID:** 9811151-01 **Collected:** 11/11/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/11/98	date completed		JA	EPA 3665	
Florisil Cleanup	11/11/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/11/98	DGK		37
PCB-1221	ND	µg/kg dry wt	11/11/98	DGK		94
PCB-1232	ND	µg/kg dry wt	11/11/98	DGK		37
PCB-1242	86	µg/kg dry wt	11/11/98	DGK		37
PCB-1248	ND	µg/kg dry wt	11/11/98	DGK		230
PCB-1254	ND	µg/kg dry wt	11/11/98	DGK		37
PCB-1260	ND	µg/kg dry wt	11/11/98	DGK		37
Total PCBs	86	µg/kg dry wt	11/11/98	DGK		360
Prep by Sonication	11/11/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	11/11/98	date completed		JA	EPA 3630	
Sulfur Cleanup	11/11/98	date completed		JA	EPA 3660	
Total Solids	90.5	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 19, 1998

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 18, 1998.

Sample ID: KR-CP-17 Lab ID: 9811228-01 Collected: 11/18/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/18/98	date completed		JA	EPA 3665	
Alumina Cleanup	11/18/98	date completed		JA	EPA 3611	
Florisil Cleanup	11/18/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/18/98	DGK		87
PCB-1221	ND	µg/kg dry wt	11/18/98	DGK		87
PCB-1232	ND	µg/kg dry wt	11/18/98	DGK		87
PCB-1242	220	µg/kg dry wt	11/18/98	DGK		87
PCB-1248	ND	µg/kg dry wt	11/18/98	DGK		87
PCB-1254	ND	µg/kg dry wt	11/18/98	DGK		46
PCB-1260	ND	µg/kg dry wt	11/18/98	DGK		50
Total PCBs	220	µg/kg dry wt	11/18/98	DGK		190
Prep by Sonication	11/18/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	11/18/98	date completed		JA	EPA 3630	
Sulfur Cleanup	11/18/98	date completed		JA	EPA 3660	
Total Solids	91.7	% of sample		DGK	APHA 2540 B.	

Sample ID: KR-CP-18 Lab ID: 9811228-02 Collected: 11/18/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/18/98	date completed		JA	EPA 3665	
Alumina Cleanup	11/18/98	date completed		JA	EPA 3611	
Florisil Cleanup	11/18/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/18/98	DGK		41
PCB-1221	ND	µg/kg dry wt	11/18/98	DGK		41
PCB-1232	ND	µg/kg dry wt	11/18/98	DGK		41
PCB-1242	1,800	µg/kg dry wt	11/18/98	DGK		41
PCB-1248	ND	µg/kg dry wt	11/18/98	DGK		41
PCB-1254	660	µg/kg dry wt	11/18/98	DGK		41
PCB-1260	ND	µg/kg dry wt	11/18/98	DGK		41
Total PCBs	2,500	µg/kg dry wt	11/18/98	DGK		130
Prep by Sonication	11/18/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	11/18/98	date completed		JA	EPA 3630	
Sulfur Cleanup	11/18/98	date completed		JA	EPA 3660	
Total Solids	90.7	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmes.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 23, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Fahrny, Laboratory Manager

DATE RECEIVED: Received from client on November 20, 1998.

Sample ID: KR-CP-18B Lab ID: 9811262-01 Collected: 11/20/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/20/98	date completed		WS	EPA 3665	
Alumina Cleanup	11/20/98	date completed		WS	EPA 3611	
Florisil Cleanup	11/20/98	date completed		WS	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/20/98	DGK		30
PCB-1221	ND	µg/kg dry wt	11/20/98	DGK		30
PCB-1232	ND	µg/kg dry wt	11/20/98	DGK		30
PCB-1242	170	µg/kg dry wt	11/20/98	DGK		30
PCB-1248	ND	µg/kg dry wt	11/20/98	DGK		30
PCB-1254	60	µg/kg dry wt	11/20/98	DGK		30
PCB-1260	ND	µg/kg dry wt	11/20/98	DGK		30
Total PCBs	230	µg/kg dry wt	11/20/98	DGK		90
Prep by Sonication	11/20/98	prep. date		WS	EPA 3550	
Silica Gel Cleanup	11/20/98	date completed		WS	EPA 3630	
Sulfur Cleanup	11/20/98	date completed		WS	EPA 3660	
Total Solids	91.4	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfind

DATE: November 27, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 25, 1998.

Sample ID: SR-CP-19 Lab ID: 9811313-01 Collected: 11/25/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/25/98	date completed		DGK	EPA 3665	
Alumina Cleanup	11/25/98	date completed		DGK	EPA 3611	
Florisil Cleanup	11/25/98	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/25/98	DAH		46
PCB-1221	ND	µg/kg dry wt	11/25/98	DAH		38
PCB-1232	ND	µg/kg dry wt	11/25/98	DAH		46
PCB-1242	ND	µg/kg dry wt	11/25/98	DAH		46
PCB-1248	ND	µg/kg dry wt	11/25/98	DAH		58
PCB-1254	ND	µg/kg dry wt	11/25/98	DAH		32
PCB-1260	ND	µg/kg dry wt	11/25/98	DAH		32
Total PCBs	ND	µg/kg dry wt	11/25/98	DAH		130
Prep by Sonication	11/25/98	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	11/25/98	date completed		DGK	EPA 3630	
Sulfur Cleanup	11/25/98	date completed		DGK	EPA 3660	
Total Solids	75.2	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 10, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray, Laberatory Manager

DATE RECEIVED: Received from client on December 7, 1998.

Sample ID: KR-GP-20 Lab ID: 9812101-01 Collected: 12/07/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	12/08/98	date completed		WS	EPA 3665	
Alumina Cleanup	12/08/98	date completed		WS	EPA 3611	
Florisil Cleanup	12/08/98	date completed		WS	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	12/07/98	DGK		110
PCB-1221	ND	µg/kg dry wt	12/07/98	DGK		26
PCB-1232	ND	µg/kg dry wt	12/07/98	DGK		110
PCB-1242	ND	µg/kg dry wt	12/07/98	DGK		110
PCB-1248	ND	µg/kg dry wt	12/07/98	DGK		180
PCB-1254	ND	µg/kg dry wt	12/07/98	DGK		110
PCB-1260	1,300	µg/kg dry wt	12/07/98	DGK		110
Total PCBs	1,300	µg/kg dry wt	12/07/98	DGK		320
Prep by Sonication	12/08/98	prep. date		WS	EPA 3550	
Silica Gel Cleanup	12/08/98	date completed		WS	EPA 3630	
Sulfur Cleanup	12/08/98	date completed		WS	EPA 3660	
Total Solids	86.2	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 9, 1998

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 8, 1998.

Sample ID: KR-SG-01 N. GATE Lab ID: 9812121-01 Collected: 12/08/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	12/08/98	date completed		WS	EPA 3665	
Alumina Cleanup	12/08/98	date completed		WS	EPA 3611	
Florisil Cleanup	12/08/98	date completed		WS	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	12/08/98	DGK		60
PCB-1221	ND	µg/kg dry wt	12/08/98	DGK		40
PCB-1232	ND	µg/kg dry wt	12/08/98	DGK		60
PCB-1242	ND	µg/kg dry wt	12/08/98	DGK		60
PCB-1248	ND	µg/kg dry wt	12/08/98	DGK		190
PCB-1254	ND	µg/kg dry wt	12/08/98	DGK		73
PCB-1260	ND	µg/kg dry wt	12/08/98	DGK		55
Total PCBs	ND	µg/kg dry wt	12/08/98	DGK		310
Prep by Sonication	12/08/98	prep. date		WS	EPA 3550	
Silica Gel Cleanup	12/08/98	date completed		WS	EPA 3630	
Sulfur Cleanup	12/08/98	date completed		WS	EPA 3660	
Total Solids	94.7	% of sample		DGK	APHA 2540 B.	

Sample ID: KR-SG-01 S. GATE Lab ID: 9812121-02 Collected: 12/08/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	12/08/98	date completed		WS	EPA 3665	
Alumina Cleanup	12/08/98	date completed		WS	EPA 3611	
Florisil Cleanup	12/08/98	date completed		WS	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	12/08/98	DGK		51
PCB-1221	ND	µg/kg dry wt	12/08/98	DGK		38
PCB-1232	ND	µg/kg dry wt	12/08/98	DGK		51
PCB-1242	ND	µg/kg dry wt	12/08/98	DGK		51
PCB-1248	ND	µg/kg dry wt	12/08/98	DGK		150
PCB-1254	ND	µg/kg dry wt	12/08/98	DGK		38
PCB-1260	ND	µg/kg dry wt	12/08/98	DGK		39
Total PCBs	ND	µg/kg dry wt	12/08/98	DGK		230
Prep by Sonication	12/08/98	prep. date		WS	EPA 3550	
Silica Gel Cleanup	12/08/98	date completed		WS	EPA 3630	
Sulfur Cleanup	12/08/98	date completed		WS	EPA 3660	
Total Solids	88.1	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: January 29, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray (TBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on January 27, 1999.

Sample ID: KR-CP-21B Lab ID: 9901256-01 Collected: 01/27/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/28/99	date completed		WJC	EPA 3665	
Alumina Cleanup	01/28/99	date completed		WJC	EPA 3611	
Florisil Cleanup	01/28/99	date completed		WJC	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/28/99	DGK		30
PCB-1221	ND	µg/kg dry wt	01/28/99	DGK		59
PCB-1232	ND	µg/kg dry wt	01/28/99	DGK		30
PCB-1242	ND	µg/kg dry wt	01/28/99	DGK		30
PCB-1248	280	µg/kg dry wt	01/28/99	DGK		30
PCB-1254	ND	µg/kg dry wt	01/28/99	DGK		30
PCB-1260	1,900	µg/kg dry wt	01/28/99	DGK		30
Total PCBs	2,200	µg/kg dry wt	01/28/99	DGK		120
Prep by Sonication	01/28/99	prep. date		WJC	EPA 3550	
Silica Gel Cleanup	01/28/99	date completed		WJC	EPA 3630	
Sulfur Cleanup	01/28/99	date completed		WJC	EPA 3660	
Total Solids	84.6	% of sample		DGK	APHA 2540 B.	

Sample ID: KR-CP-21BD Lab ID: 9901256-02 Collected: 01/27/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/28/99	date completed		WJC	EPA 3665	
Alumina Cleanup	01/28/99	date completed		WJC	EPA 3611	
Florisil Cleanup	01/28/99	date completed		WJC	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/28/99	DGK		35
PCB-1221	ND	µg/kg dry wt	01/28/99	DGK		85
PCB-1232	ND	µg/kg dry wt	01/28/99	DGK		35
PCB-1242	ND	µg/kg dry wt	01/28/99	DGK		35
PCB-1248	310	µg/kg dry wt	01/28/99	DGK		35
PCB-1254	ND	µg/kg dry wt	01/28/99	DGK		35
PCB-1260	2,000	µg/kg dry wt	01/28/99	DGK		35
Total PCBs	2,300	µg/kg dry wt	01/28/99	DGK		160
Prep by Sonication	01/28/99	prep. date		WJC	EPA 3550	
Silica Gel Cleanup	01/28/99	date completed		WJC	EPA 3630	
Sulfur Cleanup	01/28/99	date completed		WJC	EPA 3660	
Total Solids	87.1	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 23, 1998

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 19, 1998.

Sample ID: KR-CP-21 Lab ID: 9812278-01 Collected: 12/19/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	12/20/98	date completed		JA	EPA 3665	
Alumina Cleanup	12/20/98	date completed		JA	EPA 3611	
Florisil Cleanup	12/20/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	12/21/98	DAH		45
PCB-1221	ND	µg/kg dry wt	12/21/98	DAH		45
PCB-1232	ND	µg/kg dry wt	12/21/98	DAH		45
PCB-1242	1,800	µg/kg dry wt	12/21/98	DAH		45
PCB-1248	ND	µg/kg dry wt	12/21/98	DAH		45
PCB-1254	ND	µg/kg dry wt	12/21/98	DAH		46
PCB-1260	1,300	µg/kg dry wt	12/21/98	DAH		45
Total PCBs	3,100	µg/kg dry wt	12/21/98	DAH		140
Prep by Sonication	12/20/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	12/20/98	date completed		JA	EPA 3630	
Sulfur Cleanup	12/20/98	date completed		JA	EPA 3660	
Total Solids	88.1	% of sample		WJC	APHA 2540 B.	

Sample ID: KR-CP-21D Lab ID: 9812278-02 Collected: 12/19/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	12/20/98	date completed		JA	EPA 3665	
Alumina Cleanup	12/20/98	date completed		JA	EPA 3611	
Florisil Cleanup	12/20/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	12/21/98	DAH		100
PCB-1221	ND	µg/kg dry wt	12/21/98	DAH		140
PCB-1232	ND	µg/kg dry wt	12/21/98	DAH		100
PCB-1242	1,800	µg/kg dry wt	12/21/98	DAH		100
PCB-1248	ND	µg/kg dry wt	12/21/98	DAH		100
PCB-1254	ND	µg/kg dry wt	12/21/98	DAH		100
PCB-1260	1,300	µg/kg dry wt	12/21/98	DAH		100
Total PCBs	3,100	µg/kg dry wt	12/21/98	DAH		340
Prep by Sonication	12/20/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	12/20/98	date completed		JA	EPA 3630	
Sulfur Cleanup	12/20/98	date completed		JA	EPA 3660	
Total Solids	87.9	% of sample		WJC	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-5185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: February 8, 1999

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahrt, Laboratory Manager

DATE RECEIVED: Received from client on February 5, 1999.

Sample ID: KR-CP-21C Lab ID: 9902102-01 Collected: 02/05/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	02/05/99	date completed		DGK	EPA 3665	
Alumina Cleanup	02/05/99	date completed		DGK	EPA 3611	
Florisil Cleanup	02/05/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	02/05/99	DGK		32
PCB-1221	ND	µg/kg dry wt	02/05/99	DGK		32
PCB-1232	ND	µg/kg dry wt	02/05/99	DGK		32
PCB-1242	ND	µg/kg dry wt	02/05/99	DGK		32
PCB-1248	ND	µg/kg dry wt	02/05/99	DGK		32
PCB-1254	ND	µg/kg dry wt	02/05/99	DGK		32
PCB-1260	2,100	µg/kg dry wt	02/05/99	DGK		32
Total PCBs	2,100	µg/kg dry wt	02/05/99	DGK		100
Prep by Sonication	02/05/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	02/05/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	02/05/99	date completed		DGK	EPA 3660	
Total Solids	83.5	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Dectection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmes.com
Internet: http://www.wmes.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: February 19, 1999

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Sahray, Laboratory Manager

DATE RECEIVED: Received from client on February 17, 1999.

Sample ID: KR-CP-22 Lab ID: 9902238-01 Collected: 02/17/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	02/18/99	date completed		DGK	EPA 3665	
Alumina Cleanup	02/18/99	date completed		DGK	EPA 3611	
Florisil Cleanup	02/18/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	02/18/99	DGK		70
PCB-1221	ND	µg/kg dry wt	02/18/99	DGK		70
PCB-1232	ND	µg/kg dry wt	02/18/99	DGK		70
PCB-1242	ND	µg/kg dry wt	02/18/99	DGK		1,000
PCB-1248	ND	µg/kg dry wt	02/18/99	DGK		70
PCB-1254	300	µg/kg dry wt	02/18/99	DGK		70
PCB-1260	360	µg/kg dry wt	02/18/99	DGK		70
Total PCBs	660	µg/kg dry wt	02/18/99	DGK		1,200
Prep by Sonication	02/18/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	02/18/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	02/18/99	date completed		DGK	EPA 3660	
Total Solids	39.1	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on recycled paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

HAUL ROAD
2ND ROUND
(AFTER EXCAVATION)

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim La Guerre
Re: Kalamazoo River Superfund

DATE: May 19, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Director

DATE RECEIVED: Received from client on May 12, 1999.

Sample ID: HR-GS-008-F Lab ID: 9905156-01 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1242	110	µg/kg dry wt	05/18/99	DGK		26
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1254	77	µg/kg dry wt	05/18/99	DGK		26
PCB-1260	35	µg/kg dry wt	05/18/99	DGK		26
Total PCBs	220	µg/kg dry wt	05/18/99	DGK		100
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	89.7	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: HR-GS-007-F Lab ID: 9905156-02 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		28
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		28
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		28
PCB-1242	190	µg/kg dry wt	05/18/99	DGK		28
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		28
PCB-1254	450	µg/kg dry wt	05/18/99	DGK		28
PCB-1260	260	µg/kg dry wt	05/18/99	DGK		28
Total PCBs	900	µg/kg dry wt	05/18/99	DGK		100
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	88.0	% of sample	05/18/99	DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: HR-GS-013-F Lab ID: 9905156-03 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		36
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1242	640	µg/kg dry wt	05/18/99	DGK		24
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1254	160	µg/kg dry wt	05/18/99	DGK		24
PCB-1260	76	µg/kg dry wt	05/18/99	DGK		24
Total PCBs	880	µg/kg dry wt	05/18/99	DGK		100
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	92.5	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: HR-GS-002-F Lab ID: 9905156-04 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		46
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1242	440	µg/kg dry wt	05/18/99	DGK		26
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		26
PCB-1254	140	µg/kg dry wt	05/18/99	DGK		26
PCB-1260	51	µg/kg dry wt	05/18/99	DGK		26
Total PCBs	630	µg/kg dry wt	05/18/99	DGK		100
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	92.8	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: HR-GS-014-F Lab ID: 9905156-05 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		66
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1242	500	µg/kg dry wt	05/18/99	DGK		24
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1254	120	µg/kg dry wt	05/18/99	DGK		24
PCB-1260	29	µg/kg dry wt	05/18/99	DGK		24
Total PCBs	650	µg/kg dry wt	05/18/99	DGK		120
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	96.8	% of sample	05/18/99	DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: HR-GS-011-F Lab ID: 9905156-06 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		36
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		120
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		36
PCB-1242	690	µg/kg dry wt	05/18/99	DGK		36
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		36
PCB-1254	150	µg/kg dry wt	05/18/99	DGK		36
PCB-1260	62	µg/kg dry wt	05/18/99	DGK		36
Total PCBs	900	µg/kg dry wt	05/18/99	DGK		200
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	83.2	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: HR-GS-011-F (MS) Lab ID: 99C5156-07 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Matrix Spike -- PCBs	05/15/99	prep. date		BT		
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	NA	% recovery	05/18/99	DGK		NA
PCB-1221	NA	% recovery	05/18/99	DGK		NA
PCB-1232	NA	% recovery	05/18/99	DGK		NA
PCB-1242	NA	% recovery	05/18/99	DGK		NA
PCB-1248	NA	% recovery	05/18/99	DGK		NA
PCB-1254	85.4	% recovery	05/18/99	DGK		NA
PCB-1260	NA	% recovery	05/18/99	DGK		NA
Total PCBs	NA	% recovery	05/18/99	DGK		NA
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	83.2	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: HR-GS-011-F (MSD) Lab ID: 9905156-08 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Matrix Spike -- PCBs	05/15/99	prep. date		BT		
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	NA	% recovery	05/18/99	DGK		NA
PCB-1221	NA	% recovery	05/18/99	DGK		NA
PCB-1232	NA	% recovery	05/18/99	DGK		NA
PCB-1242	NA	% recovery	05/18/99	DGK		NA
PCB-1248	NA	% recovery	05/18/99	DGK		NA
PCB-1254	84.0	% recovery	05/18/99	DGK		NA
PCB-1260	NA	% recovery	05/18/99	DGK		NA
Total PCBs	NA	% recovery	05/18/99	DGK		NA
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: MR-GS-011-F (MSD) Lab ID: 9905156-08 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	83.2	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: MR-GS-012-F Lab ID: 9905156-09 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		98
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1242	480	µg/kg dry wt	05/18/99	DGK		24
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1254	110	µg/kg dry wt	05/18/99	DGK		24
PCB-1260	53	µg/kg dry wt	05/18/99	DGK		24
Total PCBs	640	µg/kg dry wt	05/18/99	DGK		150
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	88.3	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: MR-GS-013-FD Lab ID: 9905156-10 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		97
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1242	530	µg/kg dry wt	05/18/99	DGK		24
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		24
PCB-1254	130	µg/kg dry wt	05/18/99	DGK		24
PCB-1260	38	µg/kg dry wt	05/18/99	DGK		24
Total PCBs	700	µg/kg dry wt	05/18/99	DGK		100
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	91.3	% of sample	05/18/99	DGK	APHA 2540 B.	

Sample ID: TMP - 140 Lab ID: 9905156-11 Collected: 05/12/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Cooler Temperature	4	degrees C	05/12/99	PJC	Thermometer	

Sample ID: MR-GS-001-F Lab ID: 9905156-12 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/15/99	date completed		BT	EPA 3665	
Alumina Cleanup	05/15/99	date completed		BT	EPA 3611	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: HR-GS-001-F Lab ID: 9905156-12 Collected: 05/07/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Florisil Cleanup	05/15/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/18/99	DGK		30
PCB-1221	ND	µg/kg dry wt	05/18/99	DGK		30
PCB-1232	ND	µg/kg dry wt	05/18/99	DGK		30
PCB-1242	260	µg/kg dry wt	05/18/99	DGK		30
PCB-1248	ND	µg/kg dry wt	05/18/99	DGK		30
PCB-1254	330	µg/kg dry wt	05/18/99	DGK		30
PCB-1260	88	µg/kg dry wt	05/18/99	DGK		30
Total PCBs	680	µg/kg dry wt	05/18/99	DGK		100
Prep by Sonication	05/15/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	05/15/99	date completed		BT	EPA 3630	
Sulfur Cleanup	05/15/99	date completed		BT	EPA 3660	
Total Solids	91.7	% of sample	05/18/99	DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

3RD/FINAL ROUND

Sample ID: ER-GS-005-ST Lab ID: 9908286-02 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids (104 °C)	92.0	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		39
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		39
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		39
PCB-1248	ND	µg/kg dry wt	08/30/99	DGK		39
PCB-1254	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		27
Total PCBs	ND	µg/kg dry wt	08/30/99	DGK		110
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

Sample ID: ER-GS-006-ST Lab ID: 9908286-03 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids (104 °C)	93.6	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1248	ND	µg/kg dry wt	08/30/99	DGK		30
PCB-1254	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		26
Total PCBs	ND	µg/kg dry wt	08/30/99	DGK		82
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

Sample ID: ER-GS-007-ST Lab ID: 9908286-04 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids (104 °C)	89.2	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		26
PCB-1242	74	µg/kg dry wt	08/30/99	DGK		26
PCB-1248	ND	µg/kg dry wt	08/30/99	DGK		52
PCB-1254	42	µg/kg dry wt	08/30/99	DGK		26
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		26
Total PCBs	120	µg/kg dry wt	08/30/99	DGK		110
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: HR-GS-014-ST Lab ID: 9908286-05 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids (104 °C)	85.4	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		130
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		32
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		130
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		130
PCB-1248	250	µg/kg dry wt	08/30/99	DGK		26
PCB-1254	83	µg/kg dry wt	08/30/99	DGK		26
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		26
Total PCBs	330	µg/kg dry wt	08/30/99	DGK		190
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

Sample ID: HR-GS-013-ST Lab ID: 9908286-06 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids (104 °C)	89.1	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		140
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		25
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		140
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		140
PCB-1248	480	µg/kg dry wt	08/30/99	DGK		25
PCB-1254	38	µg/kg dry wt	08/30/99	DGK		25
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		25
Total PCBs	280	µg/kg dry wt	08/30/99	DGK		190
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

Sample ID: HR-GS-010-ST Lab ID: 9908286-07 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids (104 °C)	89.8	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		130
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		130
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		130
PCB-1248	190	µg/kg dry wt	08/30/99	DGK		27
PCB-1254	57	µg/kg dry wt	08/30/99	DGK		27
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		27
Total PCBs	250	µg/kg dry wt	08/30/99	DGK		190
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: HR-GS-011-ST Lab ID: 9908286-08 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids (104 °C)	82.7	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		160
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		57
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		160
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		160
PCB-1248	230	µg/kg dry wt	08/30/99	DGK		27
PCB-1254	57	µg/kg dry wt	08/30/99	DGK		27
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		27
Total PCBs	290	µg/kg dry wt	08/30/99	DGK		250
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

Sample ID: HR-GS-004-ST Lab ID: 9908286-09 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids (104 °C)	90.3	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		260
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		34
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		260
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		260
PCB-1248	920	µg/kg dry wt	08/30/99	DGK		26
PCB-1254	230	µg/kg dry wt	08/30/99	DGK		26
PCB-1260	31	µg/kg dry wt	08/30/99	DGK		26
Total PCBs	1,200	µg/kg dry wt	08/30/99	DGK		320
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

Sample ID: HR-GS-W6-ST Lab ID: 9908286-10 Collected: 08/25/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids (104 °C)	88.9	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		46
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		38
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		46
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		46
PCB-1248	72	µg/kg dry wt	08/30/99	DGK		27
PCB-1254	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		27
Total PCBs	72	µg/kg dry wt	08/30/99	DGK		120
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: ER-GS-X-ST **Lab ID: 9908286-11** **Collected: 08/25/99**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids (104 °C)	88.9	% of sample		BT	APHA 2540 B.	
Acid/Permanganate Cleanup	08/26/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/26/99	date completed		BT	EPA 3611	
Florisil Cleanup	08/26/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1221	ND	µg/kg dry wt	08/30/99	DGK		40
PCB-1232	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1242	ND	µg/kg dry wt	08/30/99	DGK		27
PCB-1248	160	µg/kg dry wt	08/30/99	DGK		27
PCB-1254	60	µg/kg dry wt	08/30/99	DGK		27
PCB-1260	ND	µg/kg dry wt	08/30/99	DGK		27
Total PCBs	220	µg/kg dry wt	08/30/99	DGK		94
Prep by Sonication	08/26/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/26/99	date completed		BT	EPA 3630	
Sulfur Cleanup	08/26/99	date completed		BT	EPA 3660	

ND - Not Detected
MDL - Method Detection Limit

Printed on Recycled Paper

APPENDIX D1

CHAIN OF CUSTODY
(WWTP)

LTI - Limno-Tech, Inc.
Environmental Engineering

Check originating office

☐ Corporate Office
501 Avis Drive
Ann Arbor, MI 48108
Phone (313) 332-1200
Fax (313) 332-1212

☒ Kalamazoo Field Office
2980 Business One Drive
Kalamazoo, MI 49001
Phone (616) 226-0190
Fax (616) 226-0192

CHAIN OF CUSTODY RECORD

PROJ. NO.: JD7
PROJECT NAME: Allied Paper
SAMPLERS: (Signature) Michael Moravec

STA. NO.	'98 DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	PCBs	REMARKS
98-1701	9/15	11:30		✓	Tank "A"	2	✓	- Please fax results to John Peterson. - Please send report to Cathy Whiting - TAT = 24 Hrs. - Shipped to Bill Voigt via Fed. Ex. # 5273966740
					Cooler #53			

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Michael Moravec	9/15/98	12:30					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
[illegible]	9/16/98	1930	[illegible]				
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE	TIME	Remarks:	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

11/05/98 THU 18:00 FAX 734 332 1200 LIMNO-TECH +++ LTI-KZ 004

LTI – Limno-Tech, Inc.
Environmental Engineering

Check originating office

☐ Corporate Office	☒ Kalamazoo Field Office
501 Avis Drive	2980 Business One Drive
Ann Arbor, MI 48108	Kalamazoo, MI 49001
Phone (313) 332-1200	Phone (616) 226-0190
Fax (313) 332-1212	Fax (616) 226-0192

CHAIN OF CUSTODY RECORD

PROJ. NO.: JD7
PROJECT NAME: Allied Paperwork
SAMPLERS: (Signature) Michael Mroz

STA. NO.	'98 DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	KLBS	REMARKS
98-1799	9/30	16:15		✓	Tank "B"	2	✓	- Please fax results to John Peterson.
								- Please send report to Cathy Whiting.
								- TAT = 24 Hrs.
								- Shipped to Bill Voigt via Fed. Ex. # 5273766736
					Cooler # 55			

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Michael Mroz	9/30/98	17:45					
Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
	10/1/98	1010					
Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE	TIME	Remarks:	

Distribution: Original Accompanies Shipment; Copy to ... inator Field Files

11/05/98 THU 18:02 FAX 734 332 1200 LIMNO-TECH +++ LTI-KZ 008

LTI–Limno-Tech, Inc.
Environmental Engineering

Check originating office

☐ Corporate Office
501 Avis Drive
Ann Arbor, MI 48108
Phone (313) 332-1200
Fax (313) 332-1212

☒ Kalamazoo Field Office
2980 Business One Drive
Kalamazoo, MI 49001
Phone (616) 226-0190
Fax (616) 226-0192

CHAIN OF CUSTODY RECORD

PROJ. NO.: JD7
PROJECT NAME: Allied Paper
SAMPLERS: (Signature) Michael Moraver

STA. NO.	'98 DATE	TIME	COMP.	GRAB	STATION LOCATION	Number of Containers	PCB's						REMARKS
98-1831	10/5	15:30		✓	Tank "C"	2	✓						- Please fax results to John Peterson.
													- Please send report to Cathy Whiting.
													- TAT = 24 Hrs.
													- Please send back all shipping coolers to Field Office.
					Cooler # 50								- Shipped to Bill Voigt via Fed. Ex. # 807024163126

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	Relinquished by: (Signature)	DATE	TIME	Relinquished by: (Signature)
Michael Moraver	10/5/98	17:15					
Fed Exp	10/6/98	0930	[signature]				

Relinquished by: (Signature)	DATE	TIME	Received for Laboratory by: (Signature)	DATE	TIME	Remarks:

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

881

Project Contact: Hal Blackcroft

Turn Around Requirements: 24 hrs

Project No.:

Project Name: Kalamazoo River Superfund

Sampler (print): Cope Mair

Signature: [signature]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCBs	ADDITIONAL REQUIREMENTS
WWINF-001		X	10/28/98	1300	Water				X	
WWEFF-001		X	10/28/98	1510	Water				X	
Trip Blank 4		X	10/28/98							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	10/28/98	1730					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all co[illegible] samples prior to analysis

White – Lab Ye[illegible] [illegible]fice Pink – Field

KERR-MCGEE ENVIRONMENTAL SERVICES

WESTERN MICHIGAN

4899

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 24 HOURS

Project No.: | Project Name: KALAMAZOO RIVER SUPERFUND SITE

Sampler (print): [illegible] / [illegible] | Signature: [signature]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCBs	TEMPERATURE	ADDITIONAL REQUIREMENTS
BB4-CF-GS-01		✓	11/07/98	0930	Soil		1		X		
WWEFF-002		✓	11/07/98	1210	water		2		X		
WWINF-002		✓	11/07/98	1210	water		2		X		
CC4-CF-GS-01		✓	11/07/98	1520	Soil		1		X		
DD4-CF-GS-01		✓	11/07/98	1630	Soil		1		X		
Trip Blank		✓	11/07/98	1715	water		1			X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	11/07/98						

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

KEL-RON
ENVIRONMENTAL SERVICES

4902

CHAIN-OF-CUSTODY RECORD

Page _____ of _____.

Project Contact:

Turn Around Requirements:

Project No.: | Project Name:

Sampler (print): | Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold		Temperature	ADDITIONAL REQUIREMENTS
[illegible]		✓	[illegible]	1715	[illegible]				X		
tmp-031		✓	11/04/98	1745	water					X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	11/4/98						

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all co samples prior to analysis

White – Lab Ye ffice Pink – Field

Kemron ENVIRONMENTAL SERVICES — [illegible] MICHIGAN

94903

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible] Superfund

Sampler (print): [illegible] Adhwaryu

Signature: [signature]

Sample I.D. No.	Comp.*	Grab	Date	Time	Protocol ~~CWA~~	Protocol SW846	NUMBER OF SAMPLES	Hold	PCBs	RTEX	[illegible]	TPH	[illegible]												ADDITIONAL REQUIREMENTS
[illegible]		X	11/10/98	10:15	[illegible]				X	X	X	X													
[illegible]		X	11/10/98	15:45	[illegible]								X												

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	11/10/98	15					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kelron
ENVIRONMENTAL SERVICES

309

CHAIN-OF-CUSTODY RECORD

Project Contact:

Turn Around Requirements:

Project No.: | Project Name:

Sampler (print): | Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold								ADDITIONAL REQUIREMENTS
		X							X	X	X	X	X		X	
		X												X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all co samples prior to analysis

White – Lab Ye ffice Pink – Field

KEMRON
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact:

Turn Around Requirements: 4 Hrs

Project No.: | Project Name:

Sampler (print): Nimish Adhvaryu | Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold
[illegible] INF-006		X	11/17/[illegible]	[illegible]	[illegible]		4	

ADDITIONAL REQUIREMENTS

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	11/17/[illegible]	1450					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact:

Turn Around Requirements:

Project No.: | Project Name:

Sampler (print): | Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	~~BOTEX~~ BTEX											ADDITIONAL REQUIREMENTS
[illegible]		X	[illegible]	[illegible]	[illegible]				X	X	X	X	X	X											

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all c[illegible] samples prior to analysis

White – Lab Ye[illegible] ffice Pink – Field

Kemron
ENVIRONMENTAL SERVICES

[illegible]

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: Kalamazoo River Superfund Site

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]															ADDITIONAL REQUIREMENTS
[illegible]		X	[illegible]	[illegible]	Water				X															

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	11/19/98	1740					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible] Water Sample for Multiple Extractions (PCBs)

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs														ADDITIONAL REQUIREMENTS
	[illegible]		X	[illegible]	1530	[illegible]				X														

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	1710					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - C[illegible] Pink - Field

WES[illegible] MICHIGAN ENVIRONMENTAL SERVICES, IN[illegible]

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

1629

Page 2 of 2

Project Contact: HAL [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	[illegible]														ADDITIONAL REQUIREMENTS
	WW-EFF-007		X	[illegible]	1500	Water				X														SEE BELOW

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						PLEASE RELEASE THIS [illegible]

White - Lab Yellow - Office Pink - Field

• KAR L ratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy. F. Weston Inc.
266 E. Alcott St.
Kalamazoo, MI, 49001

Attn: Hal Blakemore

Phone: 16161373-7009 Fax: 16161373-7010

Project Name: Kalamazoo Rapid

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials HH

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: (Y) N ____ °C intact: (Y) N

Requested Analyses: PCBs

KAR use only
Proj#: 985392
Login: MH
Date: 12/17/98
c-of-c (Y) N
labels (Y) N
LODs (Y) N
contain (Y) N
headspace Y N
amount (Y) N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-eff-010	12/11/98	1700	GAm	Water	1L	1	X	

Relinquished By: [signature]
Received By: D Ewin
Date/Time: 12/17/98 9:20

Relinquished By:
Received By:
Date/Time:

Notes: Need 0.1 µg/L. MDL

KAR Labora[illegible] Inc. (616-381-9666)

(Client must complete [illegible])

Client: Roy F. Weston Inc.
266 E Alcott St.
Kalamazoo, MI, 49001

Attn: Hal Blakemore

Phone: (616) 373-7009 **Fax:** 616 1373-7010

Project Name: Kalamazoo Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** MA

Turnaround Time: Standard.
☒ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KA[illegible] Y
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	TSS									Remarks
	WW-EFF-010	12/29/98	1720	Water	water			X									

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	Hope Bennetts	12/30/98 @ 4:40 pm	
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: HAL BLAKEMORE

Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** [illegible]

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	Cd, Cu, Pb, Hg, Ni, Cr, Zn (METALS)	CYANIDE	PCBs	pH				Remarks
	WW-EFF-011	2/11/99	0930	Water	Amber-Plastic	1 Lit	1	X	X	X	X	X	X				Det. limit for PCBs = 0.05 ppb
					Plastic	1 Lit	1										
					Plastic	250 ml	2										

Relinquished By: [signature]
Received By: Garrett Erwin
Date/Time: 2/11/99 10:25am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT SAMPLE FROM MODULE TANK #2
125,379.76 gals.

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: HAL BLAKEMORE
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: GN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: BTEX; TPH; Cd, Cu, Pb, Hg, Ni, Cr, Zn (metals); CYANIDE; PCBs; pH

KAR use only
Proj#: ___
Login: ___
Date: ___

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	Cd, Cu, Pb, Hg, Ni, Cr, Zn (metals)	CYANIDE	PCBs	pH	Remarks
	WW-EFF-012	2/15/99	0915	Water	Amber plastic	1 Lit	3	X	X	X	X	X	X	Det. limit for PCBs = 0.05 ppb
					Plastic	250ml	2							
					Glass	40ml	2							

Relinquished By: Gopalan
Received By: Hope Bemister
Date/Time: 2/15/99 @ 10:50
Notes: WWTP EFFLUENT SAMPLE FROM MODULE TANK #2

Relinquished By:
Received By:
Date/Time:

KAR Labor[illegible], Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: HAL BLAKEMORE
Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client **Initials** [illegible]

Turnaround Time: ☐ 10-day ☐ 5-day (x 1.5) ☐ 3-day (x 2.0) ☒ Emergency (quote) 24 hrs ☐ Monthly

Samples rec'd cold: (Y) N ___ °C intact: (Y) N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	PH	Cyanide				Remarks
	WW-EFF-013	2/16/99	0900	Water	Amber Plastic	1 lit 1 lit	3 1	X	X	X	X	X	X				
					Plastic Plastic	500 ml 250 ml	1 1										
					Glass	40 ml	2										

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 2/16/99; 10:05am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT SAMPLE FROM MOD. TANK #1

KAR Labo[illegible]s, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Hal Blakemore

Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** [illegible]

Turnaround Time:
☐ 10-day
☐ 5-day (x 1.5)
☐ 3-day (x 2.0)
☒ Emergency (quote) 24 hrs
☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-014	2/18/99	1145	Water	Amber	1 lit	2	X	Detection limit for PCBs = 0.05 ppb

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 2/18/99 1:45pm

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT SAMPLE FROM MODULE TANK #2

KAR Lab .ies, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: GOPA NAIR

Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: ALLIED PAPER/ KALAMAZOO RIVER SUPERFUND

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** GN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

Requested Analyses

KAR use only
Proj#: 990717
Login: MJE
Date: 2/23/99
c-of-c (Y) N
labels (Y) N
LOUs (Y) N
contain (Y) N
headspace Y (N)
amount (Y) N
hold time Y (N)
rush cost (Y) N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	CYANIDE	PH	Remarks
	WW-EFF-015	2/22/99	1020	Water	Amber Plastic	1 Lit	3	X	X	X	X	X	X	Det. limit for PCBs = 0.05ppb
					Plastic	500ml	1							
					Plastic	250ml	1							
					Glass	40ml	2							

Relinquished By: [signature]
Received By: Garrett Erwin
Date/Time: 2/22/99 11:05am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT SAMPLE FROM MODULE TANK #1

KAR Labo[illegible]es, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: GOPA NAIR
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials GN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-016	2/25/99	1115	Water	Amber	1 Lit.	2	X	Det. limits for PCBs = 0.05 ppb
	WW-CARB-01	2/24/99	1700	Water	Amber	1 Lit.	2	X	

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 2/25/99, 12:00 pm

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT SAMPLE FROM MOD. TANK #2 AND EFFLUENT SAMPLE FROM CARBON UNIT

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: GOPA NAIR
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: ALLIED PAPER/ KALAMAZOO RIVER SUPERFUND
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: GN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) in 48 hrs
☐ 5-day (x 1.5) ☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	CYANIDE	pH				Remarks
	WW-EFF-017	3/1/99	1630	Water	Amber	1 Lit	3	X	X	X	X	X	X				Det. limit for PCBs = 0.05
					Plastic	500ml	1										
					Plastic	250ml	1										
					Glass	40ml	2										

Relinquished By: [signature] Date/Time: 8103 on 3-2-99
Received By: [signature]

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT SAMPLE FROM MODULE TANK #1

KAR use only
Proj#:
Login:
Date:

c-of-c	Y	N
labels	Y	N
LODs	Y	N
contain	Y	N
headspace	Y	N
amount	Y	N
hold time	Y	N
rush cost	Y	N

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: HAL BLAKEMORE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #:

P.O. #:

Sampled by: ☐ KAR ☒ Client Initials: EB

Turnaround Time:
☐ 10-day
☐ 5-day (x 1.5)
☐ 3-day (x 2.0)
☒ Emergency (quote) 24 hrs
☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCBs									Remarks
	WW-EFF-18	3/3/99	1330	Water	Amber	1 Lit.	1	X									Detection limit for PCBs = 0.05 ppb

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	Garrett Erwin	3/3/99 2:15pm	WWTP EFFLUENT SAMPLE FROM MODULE TANK #2
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc
266 E. Alcott St
Kalamazoo, MI, 49001
Attn: Aal Blakemore / Tim Laquerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☐ Client
Initials ___

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs									Remarks
	WW-Eff-018	3/3/99	1430	Water	Amber	1 L	1	X									

Relinquished By: [signature]
Received By: Hope Bemister
Date/Time: 3/3/99 @ 2:10p
Notes: WWTP effluent sample. from module tank #2

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Appendix # 1

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Tim LaQuerre

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials BN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	Cyanide	pH	Remarks
	WW-EFF-019	3/8/99	1210	Water	Amber	1 lit	3	X	X	X	X	X	X	Det. limit for PCBs = 0.05 ppb
					Amber	250 ml	1							
					Plastic	500 ml	2							
					Plastic	250 ml	1							
					Vial	40 ml	2							

Relinquished By: [signature] Received By: [signature] Date/Time: 3/08/99 2:00 pm

Notes: WWTP EFFLUENT SAMPLE FROM MODULE TANK #1

Relinquished By: Received By: Date/Time:

KAR Labo ·es, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston Inc
266 E. Atkott St
Kalamazoo, ~~Mich~~ MI
49001

Attn:

Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: N/A Initials ____

☐ KAR ☐ Client

Turnaround Time:
☐ 10-day ☑ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	Remarks
	WW-EFF-020	03/12/99	0745	water	Amber	1L	2	X	

Relinquished By: [signature] Received By: Hope Bernister Date/Time: 3/12/99 @ 8:20 AM

Notes: WW-EFF-020 FROM MOD TANK #2

Relinquished By: Received By: Date/Time:

KAR Labor :s, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: Tim LaQuerre
Phone: ( ) Fax: ( )

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☐ Client Initials ___

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	Cyanide	PH	Remarks
	WW-EFF-021	3/16/99	1500	Water	Amber plastic	1 Lit	3	X	X	X	X	X	X	
					Plastic	500ml	1							
					Plastic	250ml	2							
					Vial	40ml	2							

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

Relinquished By: [signature]
Received By: [signature]
Date/Time: 3/17/99 9:10am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent Sample from Module Tank #1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: Tim LaQuerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: LaQ

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: BTEX, TPH, PCBs, Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn), CYANIDE, PH

KAR use only
Proj#: ___
Login: ___
Date: ___

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals	CYANIDE	PH	Remarks
	WW-EFF-022	3/22/99	1030	Water	Amber Plastic	1Lit 500ml	4 1	X	X	X	X	X	X	Det. limit for PCBs = 0.1 ppb
					Amber Vial	250ml 40ml	1 2							

Relinquished By: [signature]
Received By: Garrett Erwin
Date/Time: 3/22/99 11:25am
Notes: WWTP Effluent Sample from Module tank # 2

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: TIM LAQUERRE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: KALAMAZOO River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: SN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-023	3/24/99	0915	Water	Amber	1Lit	2	X	Det. Limit for PCBs = 0.1 PPB

Relinquished By: [signature]
Received By: Hope Bernstein
Date/Time: 3/24/99 @ 11:35

Relinquished By:
Received By:
Date/Time:

Notes: WASTE WATER T Plant Effluent Sample from Mod. Tank #1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston Inc.
266 E. Alcott Street
Kalamazoo, MI
Attn: Timothy Laquerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials IRL

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	Requested Analyses: PCBs	Remarks
	WW-EFF-024	3/26/99	1020	Water	Amber	1L	2	X	Det Limit For PCB's .01 ppb

Relinquished By: [signature] Received By: Jennifer Kosak Date/Time: 3/26/99 10:20 am
Relinquished By: Received By: Date/Time:

Notes: Waste Water Treatment Plant
Modular Tank #2
Effluent Sample

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: TIM LAQUERRE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials [illegible]

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

Requested Analyses

KAR use only
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	BTEX	TPH	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	Cyanide	pH				Remarks
	WW-EFF-025	3/29/99	0845	Water	Amber	1 lit	3	X	X	X	X	X	X				Det. limit for PCBs = 0.1 ppb
					plastic	1 lit	1										
					plastic	500 ml	1										
					plastic	250 ml	1										
					vial	40 ml	2										

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	Garrett Erwin	3/29/99 11:15am	WWTP Effluent Sample from Module Tank #1
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Tim LaQuerre

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: EAN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-026	3/31/99	1600	Water	Amber	1Lit	2	X	Det. Limit for PCBs = 0.1 ppb

Relinquished By: [signature] Date/Time: 4/1/99 8:35am

Received By: Garrett Ewin

Relinquished By:

Received By:

Date/Time:

Notes: WWTP Effluent Sample from Module Tank # 2

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: TIM LAQUERRE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: BTEX, TPH, PCBs, Metals, Cyanide, pH

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals	Cyanide	pH				Remarks
	WW-EFF-027	4/6/99	1200	Water	Amber Plastic	1 lit	3	X	X	X	X	X	X				Det. limit for PCBs = 0.1 ppb
					Plastic	1 lit	1										
					Plastic	250ml 500ml	1										
					Vial	40ml	2										

Relinquished By: [signature]
Received By: [signature]
Date/Time: 4/6/99 @ 1:45p
Notes: WWTP Effluent Sample from Tank #1

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: Tim Laquerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials SN

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	Cyanide	PH	Remarks
	WW-EFF-028	4/12/99	0900	Water	Amber plastic	1 Lit	2	X	X	X	X	X	X	Det. limit for PCBs = 0.1 ppb
					Plastic	1 gallon	1							
					Vial	40 ml	2							
	WW-EFF-029	4/12/99	0915	Water	Amber Glass	1 Lit	1			X				
							1							

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

Relinquished By: [signature] Received By: M. Erwin Date/Time: 4/12/99 10:00am
Relinquished By: Received By: Date/Time:

Notes: WWTP Effluent Samples
WW-EFF-028 - Module Tank #5
WW-EFF-029 - Mod. Tank #1

Also: SIX #7

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: ROY F. WESTON INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: TIM LAQUERRE
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: gm

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-030	4/15/99	1020	Water	Amber	1lit	2	X	PCBs det. limit = 0.1 ppb

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 4/16/99 11:55
Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent Sample from Mod. Tank #1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Tim LaQuerre

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☑ Client Initials: ecl

Turnaround Time:
☐ 10-day
☐ 5-day (x 1.5)
☐ 3-day (x 2.0)
☑ Emergency (quote) 24 hrs
☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-031	4/16/99	1010	Water	Amber	1 Lit	2	X	Det. limit for PCBs = 0.1 ppb

Relinquished By: [signature]
Received By: [signature]
Date/Time: 4/17/99 11:05am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent Sample from Mod. Tank #2

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: Tim LaQuerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: BTEX	TPH	PCBs	Metals (Cd, Cu, Pb, Hg, Ni, Cr, Zn)	cyanide	pH	Remarks
	WW-EFF-032	4/19/99	0950	Water	Amber Plastic	liter	3	X	X	X	X	X	X	Det. limit for PCBs = 0.1 ppb
					plastic	500ml	1							
					plastic	250ml	1							
					vial	40ml	2							

Relinquished By: [signature] Date/Time: 4/19/99; 10:35a
Received By: Jennifer Kosak
Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent Sample from Mod. Tank #1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy. F. Weston, Inc.
266 E. Alcott, St.
Kalamazoo, MI. 49001
Attn: Tim Laguerre / WESTON
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: [illegible]

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	Remarks
	SC-01	04/20/99	1415	Water	amber	1L	2	X	

Relinquished By: [signature]
Received By:
Date/Time:

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 4/20/99 3:40p

Notes: Sample Check from Mid Tank # 2. (Discharge)

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Ray F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI, 49001
Attn: Tim Laquerre / WESTON
Phone: 616 /373-7009 Fax: 616 /373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☑ Client Initials: LAA

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: BTEX, TPH, PCBs, METALS (Cd, Cu, Pb, Hg, Ni, Cr, Zn), CYANIDE, PH

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Remarks
	WW-EFF-033	04/20/99	1400	Water	Amber Plastic	1L	2	Detection limit for PCBs = 0.1 ppm
					Plastic	500 mL	1	
					Plastic	1L	1	
					Vial	40 mL	2	

Relinquished By: [signature]
Received By:
Date/Time:

Relinquished By: [signature]
Received By: Jennifer Kook
Date/Time: 4/20/99 2:15

Notes: WWTP Effluent Sample FROM MOD TANK #1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: TIM LAQUERRE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials [illegible]

Turnaround Time:
☐ 10-day
☐ 5-day (x 1.5)
☐ 3-day (x 2.0)
☒ Emergency (quote) 24 hrs
☐ Monthly

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs									Remarks
	WW-EFF-034	4/22/99	0905	Water	Amber	1 lit	2	X									Det. limit for PCBs = 0.1 ppb

APPENDIX #11

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 4/22/99; 9:35c

Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent Sample from Mod. Tank #1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston Inc
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Tim Laquerre

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: TWL

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

KAR # Y

Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCBs	Remarks
	WW-EFF-035	4/23/99	1500	Water	Amber	1 Lit	2	X	

Relinquished By:	Received By:	Date/Time:	Notes:
Scott Allen	Hope Brewster	4/23/99 @ 3:15p	WWTP Effluent from Mod Tank # 2
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI, 49001

Attn: Tim Laquerre/WESTON

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☑ Client Initials NA.

Turnaround Time:
☐ 10-day ☑ Emergency (quote)
☐ 5-day (x 1.5) 24 Hrs
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	BTEX	TPH	PCBs	Metals	Cyanide	pH				Remarks
	~~WW-EFF-036~~	04/26/99	830	Water	1L Amber		3	X	X	X	X	X	X				Detection Limit for PCBS = 0.1 ppm
	WW-EFF-036				500ml plastic		2										
					250ml plastic		3										
					40ml glass		2										

Relinquished By: [signature]
Received By: Hope Bemister
Date/Time: 4/26/99 @ 9:00am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent Sample from Mod Tank #1

APPENDIX #4

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON INC.
266 E. ALCOTT STREET
KALAMAZOO, MI. 49001
Attn: TIM LAQUERRE
Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: KALAMAZOO RIVER SUPERFUND
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client **Initials** TLL

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 HRS
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LDDs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	Remarks
	WW-EFF-~~036~~ 038 TEL	4-27-99	0850	WATER	AMBER	1 LITRE	2	X	
	WW-EFF-037	4-27-99	0840	WATER	AMBER	1 LITRE	2	X	

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 4/27/99; 9:30 am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP From MOD TANK #2 / # ~~036~~ 038 TEL
From CLARIFIER / # 037

APPENDIX # 1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON INC.
266 E. ALCOTT ST.
KALAMAZOO, MI. 49001
Attn: TIM LAQUERRE
Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: KALAMAZOO RIVER SUPERFUND
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: TAL

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	Remarks
	WW-EFF-039	4-29-99	1550	WATER	AMBER	1LTR	2	X	

Relinquished By: [signature] Date/Time: 4/29/99; 4:15pm
Received By: Jennifer Kosak

Relinquished By:
Received By:
Date/Time:

Notes: WWTP EFFLUENT FROM MODULAR TANK # 1

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston Inc.
266 E. Alcott Street.
Kalamazoo, MI. 49001
Attn: Tim Laquerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Project
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: TRL

Turnaround Time:
☐ 10-day ☒ Emergency (quote)
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCB's									Remarks
	WW-EFF-040	4-30-99	0750	Water	Amber	1 Litre	2	X									

Relinquished By: [signature]
Received By: G Ewin
Date/Time: 4/30/99 8:10am
Notes: WWTP From Modular Tank #2.

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott Street
Kalamazoo, MI. 49001
Attn: Tim LaQuorne
Phone: (616) 373-7009 Fax: (~~373-76~~ 616 373-7010

Project Name: Kalamazoo Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials IRL

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCB's	Remarks
	WW-EFF-041	5-3-99	0730	Water	Amber	1 Litre	2	X	
	WW-EFF-037-A	5-3-99	0745	Water	Amber	Litre	2	X	

Relinquished By: [signature] Date/Time:
Received By: Hope Bannister 5/3/99 @ 8:00
Relinquished By: Received By: Date/Time:

Notes:
WW-EFF-041 — WWTP From Modular Tank #2
WW-EFF-037-A — Retest Clarifier/ After Flocculation

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy. F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI 49001

Attn: Tim Laquerre

Phone: (616) 373-7008 **Fax:** (616) 373-7010
7009

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** ___

Turnaround Time:
☐ 10-day ☑ Emergency (quote)
☐ 5-day (x 1.5) 24 hrs
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

KAR use only
Proj#: ___
Login: ___
Date: ___

c-of-c	Y	N
labels	Y	N
LODs	Y	N
contain	Y	N
headspace	Y	N
amount	Y	N
hold time	Y	N
rush cost	Y	N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	BTEX	Metals	Cyanide	pH	TPH				Remarks
	WW-Eff-042	05/03/99	0900	water	Amber plastic	1L	3	X	X	X	X	X	X				
					plastic	250mL	1										
					glass	40mL	2										

Relinquished By: [signature]
Received By: Garrett Erwin
Date/Time: 5/3/99 11:05am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent from Mod Tank # 1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn:

Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Rapid Reap

Project #:

P.O. #

Sampled by: ☐ KAR ☑ Client **Initials:** NA

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs									Remarks
	WW-Eff-037-B.	05/05/99	1545	Water	Amber	1L	2	✓									

KAR use only
Proj#: ___
Login: ___
Date: ___

c-of-c	Y	N
labels	Y	N
LODs	Y	N
contain	Y	N
headspace	Y	N
amount	Y	N
hold time	Y	N
rush cost	Y	N

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	Garrett Erwin	9/5/99 4:15pm	Waste Water Sample from Clarifier
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy. F. Weston IAC.
266 E. Alcott St
Kalamazoo, MI 49001
Attn: Tim Laguerre
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: [illegible]

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCB's	Remarks
	WW-EFF-043	05/05/99	0800	Water	amber	1L	2	X	

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 5/05/99 8:40a

Relinquished By:
Received By:
Date/Time:

Notes: WW Effluent from Mod tank #2.

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI
Attn: Tim Laquerre / Weston
Phone: (616) 373-7609 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☑ Client Initials: LM

Turnaround Time:
☐ 10-day ☑ Emergency (quote) 24 Hr
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-Eff-044	05/07/99	0800	water	Amber	1L	2	X	
	WW-Eff-045	05/07/99	0815	water	Amber	1L	2	X	

Relinquished By: [signature] Received By: Hope Bernster Date/Time: 5/7/99 9:00

Relinquished By: Received By: Date/Time:

Notes: WW-Eff-044 from Mod Tank #1
WW-Eff-045 from Mod Tank #2

Appendix #9

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston Inc.
266 E. Alcott Street
Kalamazoo, MI 49001
Attn: Tim Laquonne
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: IRL

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCB's	Remarks
	WW-EFF-0416	5-10-99	0825	Water	Amber	1L	2	X	

Relinquished By: [signature]
Received By: Garrett Ewin
Date/Time: 5/10/99 8:35am
Notes: WWTP From Morman Tank #1.

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, INC
266 E. Alcott St
Kalamazoo, MI 49001
Attn: Tim Lagnerre/Weston
Phone: (616) 373 7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☑ Client Initials MA

Turnaround Time:
☐ 10-day ☑ Emergency (quote) 24 Hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs, TPH, Metals, BTEX, pH, Cyanide

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	TPH	Metals	BTEX	pH	Cyanide	Remarks
	WW-Eff-047	05/10/99	1600	Water	Amber	1L	3	X	X	X	X	X	X	
					~~Plastic~~	500ml	2							
					Plastic	250ml	1							
					glass	40ml	2							

Relinquished By: [signature] Received By: [signature] Date/Time: 5/10/99 4:45 pm
Relinquished By: Received By: Date/Time:

Notes: WWTP Effluent from Mod Tank #2

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI 49001
Attn: Tim Lafuerre / Nimish Adhvaryu
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #
Sampled by: ☐ KAR ☑ Client Initials: MA

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: 2 CBS

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses	Remarks
	WW-Eff-037-C	05/11/99	1200	Water	Amber	1L	2	X	

Relinquished By: [signature] Received By: J. Kosak Date/Time: 5/11/99 12:30pm
Relinquished By: Received By: Date/Time:

Notes: WW-Eff-037-C obtained from Clarifier after flocing.

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston Inc.
286 E. Alcott St.
Kalamazoo, MI, 49001
Attn: Nimish Adhvaryu / Weston
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name:
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials ___

Turnaround Time:
☐ 10 day ☒ Emergency (quote) 24 hr
☐ 5 day (x 1.5) ☐ Monthly
☐ 3 day (x 2.0)

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

Requested Analyses: PCBs

KAR use only
Proj#: ___
Login: ___
Date: ___
c of c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs
	WW-Eff-048	05/14/99	0730	Water	Amber	1L	2	X

Remarks: Need Results by 5:00pm

Relinquished By: [signature]
Received By: Garrett Erwin
Date/Time: 5/14/99 8:00am

Relinquished By:
Received By:
Date/Time:

Notes: WWTP Effluent from Mod tank #1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy. F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI 49001

Attn: Nimish Adhvaryu / WESTON

Phone: (616) 373-7009 Fax: (616) 373 7010

Project Name:

Project #

P.O. #

Sampled by: ☐ KAR ☐ Client Initials ____

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hr.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#: ____
Login: ____
Date: ____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCBs	TPH	Metals	Cyanide	BTEX	pH					Remarks
	WW-Eff-049	05/17/99	0730	Water	Amber plastic	1L	3	X	X	X	X	X	X					Metals need preservative
					Plastic	500mL	2											
					glass	250mL	1											
						40mL	2											

2 1L Amber ⇒ PCBS
1 1L Amber ⇒ TPH
500mL Sodium Hydroxid ⇒ Cyanide
500mL empty ⇒ Metals
250mL empty ⇒ pH

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	[signature]	5-17-99 7:51	WW-Eff-049 taken from Mod Tank #2
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9000) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI, 49001

Attn: Nimish Adhvaryu / Weston

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: NA

Turnaround Time:
☐ 10 day ☒ Emergency (quote)
☐ 5 day (x 1.5) 24 Hr
☐ 3 day (x 2.0) ☐ Monthly

Samples rec'd
cold: (Y) N ___ °C intact: (Y) N

Requested Analyses

KAR use only
Proj#: 992345
Login: JLK
Date: 5/19/99
c-of-c (Y) N
labels (Y) N
LOOs Y (N)
contain (Y) N
headspace Y N
amount (Y) N
hold time (Y) N
rush cost (Y) N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs									Remarks
	WW-Eff-050	05/19/99	1530	Water	Amber	1L	2	X									

Relinquished By: [signature] Received By: J. Kosak Date/Time: 5/19/99 4:00 pm

Relinquished By: Received By: Date/Time:

Notes: WW-Eff-050 from Mod Tank #1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc
250 E. Alcott St
Kalamazoo, MI 49001
Attn: Nimish Adhvaryu
Phone: (616) 373-7000 Fax: (616) 373-7010

Project Name: Kalamazoo River Supply
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client
Initials: KA

Turnaround Time: ☐ 10-day ☒ Emergency (quote) 24 Hrs ☐ 5-day (x 1.5) ☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs									Remarks
	WW-Eff-051	05/21/99	~~1500~~ 1545	Water	[illegible]	[illegible]	2	X									

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	J. Kosak	5/21/99 4:00 pm	WW-Eff-051 from Mod Tank #2
Relinquished By:	Received By:	Date/Time:	

KAR Labor. ies, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI 49001

Attn: Nimish Adhvaryu

Phone: (616) 373-7009 Fax: 616/373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hr
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	TPH	pH	Metals	Cyanide	BTEX				Remarks
	WW-Eff-052	05/24/99	1600	water	Amber plastic	1L	3	X	X	X	X	X	X				
					plastic	250mL	1										
					glass	40mL	2										

Relinquished By: [signature]
Received By: J. Kosak
Date/Time: 5/24/99; 4:20p

Relinquished By:
Received By:
Date/Time:

Notes: WW-Eff-052 from Mud Tank #1

KAR Laboratories, Inc. (616 381 9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Nimish Adhvaryu

Phone: 616 373-7009 Fax: 616 373-7010

Project Name: Kalamazoo River

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials NA

Turnaround Time: ☐ 10-day ☐ 5-day (x 1.5) ☐ 3-day (x 2.0) ☒ Emergency (quote) 24 Hrs ☐ Monthly

Samples rec'd: cold (Y) N ___ °C intact: (Y) N

Requested Analyses: PCB 5

KAR use only: Proj#: 992464 Login: JLK Date: 5/27/99 c-of-c (Y) N labels (Y) N LODs Y (N) contain (Y) N headspace ~~Y N~~ amount (Y) N hold time (Y) N rush cost (Y) N

Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB 5	Remarks
WW-Eff-053	05/27/99	1130	Water	Amber	1L	2	X	

Relinquished By: [signature] Received By: J. Kosak Date/Time: 5/27/99; 1270pm

Relinquished By: Received By: Date/Time:

Notes: WW-Eff-053 from Mod Tank 2

MAY-27-99 THU 13:48 KAR LABS FAX NO. 6163819666 P. 01

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc
266 E Alcott St
Kalamazoo, MI, 49001
Attn: Nimish Adhvaryu
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: NA

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hr
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs									Remarks
	WW-Eff-054	05/20/99	0730	Water	Amber	1L	2	X									

Relinquished By: [signature] Received By: J. Kosak Date/Time: 5/28/99; 8:00a

Relinquished By: Received By: Date/Time:

Notes: WW-Eff-054 from Mod Tank #1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc
266 E. Alcott St
Kalamazoo, MI 49001
Attn: Nimish Adhvaryu
Phone: (616) 373 7008 Fax: (616) 373 7010

Project Name: Kalamazoo River Supers.
Project #
P.O. #
Sampled by: ☐ KAR ☐ Client Initials:

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCBs	TPH	Metals	Cyanide	pH	BTEX			Remarks
	WW-Eff-055	06/02/99	0745	Water	Amber plastic	1L	3	X	+	+	+	+	+			
					Plastic	250ml	1									
					glass	40ml	2									

Relinquished By: [signature]
Received By: Garrett Ervin
Date/Time: 6/2/99 8:30am

Relinquished By:
Received By:
Date/Time:

Notes: WW-Eff-055 from Mod Tank #2.

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI 49001
Attn: Nimish Adhvaryu
Phone: (616)373-7008 **Fax:** (616)373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☐ Client **Initials** ____

Turnaround Time:
☐ 10-day (x 1.0) ☒ Emergency (quote) 24 Hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs
	WW-Eff-056	06/04/99	1330	Water	Amber	1L	2	X

KAR use only
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

Remarks

Relinquished By: [signature]
Received By: J. Kosale
Date/Time: 6/04/99 2:30pm

Relinquished By:
Received By:
Date/Time:

Notes: WW-Eff-056 from Mod tank #1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: Dave Ennis / Weston.
Phone: 616/373-7008 **Fax:** 616 373-7010

Project Name: Kalamazoo River Superfund
Project # —
P.O. # —
Sampled by: ☐ KAR ☒ Client **Initials** NA

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 Hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	TPH	Metals	Cyanide	BTEX	pH				Remarks
	WW-Eff-057	06/09/99	[illegible]	Water	Amber	1L	3	X	X	X	X	X	X				
					Plastic	500mL	2										
					Plastic	250mL	1										
					glass	40mL	2										

Relinquished By:	Received By:	Date/Time:	Notes:
David M. S—	Hope Barnstanley	6/9/99@4:00p	WW-EFF-057 from Mod #2
Relinquished By:	Received By:	Date/Time:	

(AR Laborat s, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
260 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis / Weston
Phone: 616 373-7008 Fax: 616 373-7010

Project Name: Kalamazoo River Superfund

Project #:

P.O. #:

Sampled by: ☐ KAR ☒ Client Initials: DME

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 hrs.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	Requested Analyses PCB	pH	TPH	Metals	Cyanide	BTEX				Remarks
	WW-Eff-058	6-15-99	1630	Water	Amber	1L	3	X	X	X	X	X	X				
					Plastic	500mL	2										
					Plastic	250mL	1										
					Glass	40mL	2										
												•					
													•				

Relinquished By: David M. Ennis
Received By: Hope Stanley
Date/Time: 6/15/99 5:00
Notes: WW-Eff-058 from Mod #1

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis
Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: DME

Turnaround Time:
☐ 10-day
☒ 5-day (x 1.5)
[redacted] DE ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB	pH	TPH	Metals	Cyanide	BTEX				Remarks
	WW-EFF-059	6-23-99	1430	Water	Amber	1L	3	X	X	X	X	X	X				
					Plastic	500mL	2										
					Plastic	250mL	1										
					Glass	40mL	2										

Relinquished By: David M. S.
Received By: J. Kosak
Date/Time: 6/23/99 3:10pm
Notes: WW-EFF-059 from Mod #2

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston
2666 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis

Phone: (616) 373-7008 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB	pH	TPH	Metals	Cyanide	BETX				Remarks
	WW-EFF-060	6/28/99	1630	Water	Amber	1L	3	X	X	X	X	X	X				
					Plastic	500mL	2										
					Plastic	250mL	1										
					Glass	40mL	2										

Relinquished By:	Received By:	Date/Time:	Notes:
David M. Z	Hope Bimster	6/28/99 4:50	WW-EFF-060 from Mod # 1 Full Scan
Relinquished By:	Received By:	Date/Time:	

AR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: David Ennis
Phone: (616) 373-7008 Fax: (616) 873-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	Remarks
	WW-EFF-061	7/2/99	830	Water	Amber	1L	2	X	

Relinquished By: David M. E.
Received By: Hope Stanley
Date/Time: 7/2/99 @ 9:00
Notes: WW-EFF-061 from Mod #2

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis

Phone: (616)373-7008 **Fax:** (616)373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	TPH	Cyanide	Metals	pH	BETX				Remarks
	WW-EFF-062	7-12-99	1200	Water	Amber	1L	3	X	X	X	X	X	X				
					Plastic	500mL	2										
					Plastic	250mL	1										
					Glass	40mL	2										

Relinquished By: David M. S.
Received By: J Kosak
Date/Time: 7/12/99 1:00p

Relinquished By:
Received By:
Date/Time:

Notes: WW-EFF-062 from Mod #1

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis

Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact. Y N

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	Requested Analyses PCB's	Remarks
	WW-EFF-063	7/15/99	1500	Water	Amber	1L	2	X	Det. Limit for PCB = .1 PPB

Relinquished By: David M. Z
Received By: Garrett Ervin
Date/Time: 7/15/99 3:35pm

Relinquished By:
Received By:
Date/Time:

Notes: WW-EFF-063 from Mod #2

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis

Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials D.M.E

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCB's	Remarks
	WW-EFF-064	7-22-99	0800	Water	Amber	1L	2	X	Det. Limit for PCB = .1 ppb

Relinquished By: David M. E.
Received By: Hope Stanley
Date/Time: 7/22/99 @ 0840
Notes: WW-EFF-064 from Mod #1

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. WESTON INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: Dave Ennis

Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: EN

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Remarks
	WW-EFF-065	7/27/99	1430	Water	Amber	1Lit	2	X	

Relinquished By: [signature] Received By: J. Kosak Date/Time: 7/27/99 3:00pm

Relinquished By: Received By: Date/Time:

Notes: Effluent Sample from Tank #2

(AR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: David Ennis
Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	Remarks
	WW-EFF-066	7/30/99	1230	Water	Amber	1L	2	X	Det. Limit = .1

Relinquished By: David M. E.
Received By: J. Kosak
Date/Time: 7/30/99; 1:45pm

Relinquished By:
Received By:
Date/Time:

Notes: WW-EFF-066 from Modutank #1

IR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

ent: Roy F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

ttn: Dave Ennis

hone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials BW

urnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Remarks
	WW-EFF-067	8/5/99	1030	water	Amber	1Qt	2	X

Relinquished By: [signature]

Received By: J. Kosek

Date/Time: 8/05/99 11:05

Relinquished By:

Received By:

Date/Time:

Notes: WWTP Effluent Sample from Mod Tank # 2

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis

Phone: (616)373-7008 Fax: (616)373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☐ 5-day (x 1.5)
☒ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCB's

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	Remarks
	WW-EFF-068	8-12-99	1030	Water	Amber	1L	2	X	Det. Limit = 0.1

Relinquished By: David M. Z
Received By: J. Kosak
Date/Time: 8/12/99 2:40 pm

Relinquished By:
Received By:
Date/Time:

Notes: Waste Water sample from Mod #1

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
2666 E. Alcott St.
Kalamazoo, MI 49001

Attn: David Ennis

Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials DME

Turnaround Time:
☐ 10 day ☐ Emergency (quote)
☐ 5 day (x 1.5)
☒ 3 day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB's

Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB's	Remarks
	WW-EFF-069	8-17-99	1500	Water	Amber	1L	2	X	Det. Limit = 0.1

Relinquished By: David M. Ennis
Received By: Hope Hanley
Date/Time: 8/17/99 @ 3:25 pm
Notes: From Modutank #2

Relinquished By:
Received By:
Date/Time:

? Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

it: Roy-F. Weston, Inc. 2666 E. Alcott St. Kalamazoo, MI 49001	Project Name: Kalamazoo River Superfund
n: David Ennis	Project #
ne: (616) 373-7008 Fax: (616) 373-7010	P.O. #
	Sampled by: ☐ KAR ☒ Client Initials DME

naround Time:
☐ 10-day ☒ Emergency (quote) 24 h.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB-5									Remarks
WW-EFF-070	8-26-99	1230	Water	Amber	1L	2	X									Det. Limit = 0.1 ppb

KAR use only
Proj#: _____
Login: _____
Date: _____

c-of-c	Y	N
labels	Y	N
LODs	Y	N
contain	Y	N
headspace	Y	N
amount	Y	N
hold time	Y	N
rush cost	Y	N

Relinquished By:	Received By:	Date/Time:	Notes:
David M. S—	Hope Stanley	8/26/99 @ 1:5[illegible]p	Modular Tank #2
Relinquished By:	Received By:	Date/Time:	

(AR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: David Ennis
Phone: (616)373-7008 Fax: (616)373-7010

Project Name: Kalamazoo River Super.
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials: DME

Turnaround Time:
☐ 10-day ☒ Emergency (quote) 24 H.
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd
cold: Y (N) ___ °C intact: (Y) N

Requested Analyses: PCB's

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses	Remarks
	WW-EFF-071	8-30-99	1500	Water	Amber	1L	2	X	Det. Limit = 0.1

Relinquished By: David M. Z
Received By: Garrett Erwin
Date/Time: 8/30/99 4:30pm
Notes: Modutank #2

Relinquished By:
Received By:
Date/Time:

1R Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

ent: Ray F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

tn: David Ennis

one: 616 3737008 fax: 616 3737010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials EJF

Requested Analyses

KAR use only

Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

rnaround Time:
☐ 10-day ☒ Emergency (quote) 24-hr
☐ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y (N) ___ °C intact (Y) N

Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCB's									Remarks
WW-EFF-012	9.2.99	1545	Water	Amber	1L	2	X									Det. Limit 0.1

Relinquished By: Elizabeth J [signature]

Received By:

Date/Time:

Notes: Modutank #2

Relinquished By:

Received By:

Date/Time:

APPENDIX D2

WWTP ANALYTICAL DATA

WWTP ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed						
				PCB (ug/L)	Metals	TSS	BETX	TPH	Cyanide	pH
Tank "A"	Wastewater	9/15/98	Lab. Comm. Serv.	ND						
Tank "B"	Wastewater	9/30/98	Lab. Comm. Serv.	ND						
Tank "C"	Wastewater	10/5/98	Lab. Comm. Serv.	ND						
WW-INF-001	Wastewater	10/28/98	Western Michigan	ND						
WW-EFF-001	Wastewater	10/28/98	Western Michigan	ND						
WW-INF-002	Wastewater	11/7/98	Western Michigan	ND						
WW-EFF-002	Wastewater	11/7/98	Western Michigan	ND						
WW-INF-003	Wastewater	11/9/98	Western Michigan	ND						
WWINF-004	Wastewater	11/10/98	Western Michigan	ND	x		x	x		
WW-INF-005	Wastewater	11/13/98	Western Michigan	ND	x		x	x	x	x
WW-INF-006	Wastewater	11/17/98	Western Michigan	ND						
WW-EFF-007	Wastewater	11/18/98	Western Michigan	ND	x	x	x	x	x	x
WW-EFF-007	Wastewater	11/19/98	Western Michigan	ND						
WW-EFF-008	Wastewater	12/10/98	Western Michigan	ND						
WW-EFF-009	Wastewater	12/14/98	Western Michigan	ND						
WW-EFF-010	Wastewater	12/16/98	KAR	ND						
WW-EFF-010	Wastewater	12/29/98	KAR			x				
WW-EFF-011	Wastewater	2/11/99	KAR	ND	x		x	x	x	x
WW-EFF-012	Wastewater	2/15/99	KAR	ND	x		x	x	x	x
WW-EFF-013	Wastewater	2/16/99	KAR	ND	x		x	x	x	x
WW-EFF-014	Wastewater	2/18/99	KAR	ND						
WW-EFF-015	Wastewater	2/22/99	KAR	ND	x		x	x	x	x
WW-CARB-01	Wastewater	2/24/99	KAR	ND						
WW-EFF-016	Wastewater	2/25/99	KAR	ND						
WW-EFF-017	Wastewater	3/1/99	KAR	ND	x		x	x	x	x
WW-EFF-018	Wastewater	3/3/99	KAR	ND						
WW-EFF-019	Wastewater	3/8/99	KAR	ND	x		x	x	x	x
WW-EFF-020	Wastewater	3/12/99	KAR	ND						
WW-EFF-021	Wastewater	3/16/99	KAR	ND	x		x	x	x	x
WW-EFF-022	Wastewater	3/22/99	KAR	ND	x		x	x	x	x
WW-EFF-023	Wastewater	3/23/99	KAR	ND						

x = analysis performed, see analytical data for complete results

WWTP ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed						
				PCB (ug/L)	Metals	TSS	BETX	TPH	Cyanide	pH
WW-EFF-024	Wastewater	3/26/99	KAR	ND						
WW-EFF-025	Wastewater	3/29/99	KAR	ND	x		x	x	x	x
WW-EFF-026	Wastewater	4/1/99	KAR	ND						
WW-EFF-027	Wastewater	4/6/99	KAR	ND	x		x	x	x	x
WW-EFF-028	Wastewater	4/12/99	KAR	ND	x		x	x	x	x
WW-EFF-029	Wastewater	4/12/99	KAR	ND						
WW-EFF-030	Wastewater	4/15/99	KAR	ND						
WW-EFF-031	Wastewater	4/16/99	KAR	ND						
WW-EFF-032	Wastewater	4/19/99	KAR	ND	x		x	x	x	x
SC-01	Wastewater	4/20/99	KAR	ND						
WW-EFF-033	Wastewater	4/20/99	KAR	ND	x		x	x	x	x
WW-EFF-034	Wastewater	4/22/99	KAR	ND						
WW-EFF-035	Wastewater	4/23/99	KAR	ND						
WW-EFF-036	Wastewater	4/26/99	KAR	ND	x		x	x	x	x
WW-EFF-037	Wastewater	4/27/99	KAR	0.4						
WW-EFF-038	Wastewater	4/27/99	KAR	ND						
WW-EFF-039	Wastewater	4/29/99	KAR	ND						
WW-EFF-040	Wastewater	4/30/99	KAR	ND						
WW-EFF-041	Wastewater	5/3/99	KAR	ND						
WW-EFF-037A	Wastewater	5/3/99	KAR	0.2						
WW-EFF-041	Wastewater	5/3/99	KAR	ND						
WW-EFF-042	Wastewater	5/3/99	KAR	ND	x		x	x	x	x
WW-EFF-37B	Wastewater	5/5/99	KAR	0.2						
WW-EFF-043	Wastewater	5/5/99	KAR	ND						
WW-EFF-044	Wastewater	5/7/99	KAR	ND						
WW-EFF-045	Wastewater	5/7/99	KAR	ND						
WW-EFF-046	Wastewater	5/10/99	KAR	ND						
WW-EFF-047	Wastewater	5/10/99	KAR	ND	x		x	x	x	x
WW-EFF-37C	Wastewater	5/11/99	KAR	ND						
WW-EFF-048	Wastewater	5/14/99	KAR	ND						
WW-EFF-049	Wastewater	5/17/99	KAR	ND	x		x	x	x	x

x = analysis performed, see analytical data for complete results

WWTP ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed						
				PCB (ug/L)	Metals	TSS	BETX	TPH	Cyanide	pH
WW-EFF-050	Wastewater	5/19/99	KAR	ND						
WW-EFF-051	Wastewater	5/21/99	KAR	ND						
WW-EFF-052	Wastewater	5/24/99	KAR	ND	x		x	x	x	x
WW-EFF-053	Wastewater	5/27/99	KAR	ND						
WW-EFF-054	Wastewater	5/28/99	KAR	ND						
WW-EFF-055	Wastewater	6/2/99	KAR	ND	x		x	x	x	x
WW-EFF-056	Wastewater	6/4/99	KAR	ND						
WW-EFF-057	Wastewater	6/9/99	KAR	ND	x		x	x	x	x
WW-EFF-058	Wastewater	6/15/99	KAR	ND	x		x	x	x	x
WW-EFF-059	Wastewater	6/23/99	KAR	ND	x		x	x	x	x
WW-EFF-060	Wastewater	6/28/99	KAR	ND	x		x	x	x	x
WW-EFF-061	Wastewater	7/2/99	KAR	ND						
WW-EFF-062	Wastewater	7/12/99	KAR	ND	x		x	x	x	x
WW-EFF-063	Wastewater	7/15/99	KAR	ND						
WW-EFF-064	Wastewater	7/22/99	KAR	ND						
WW-EFF-065	Wastewater	7/27/99	KAR	ND						
WW-EFF-066	Wastewater	7/30/99	KAR	ND						
WW-EFF-067	Wastewater	8/5/99	KAR	ND						
WW-EFF-068	Wastewater	8/12/99	KAR	ND						
WW-EFF-069	Wastewater	8/17/99	KAR	ND						
WW-EFF-070	Wastewater	8/26/99	KAR	ND						
WW-EFF-071	Wastewater	8/30/99	KAR	ND						
WW-EFF-072	Wastewater	9/2/99	KAR	ND						

x = analysis performed, see analytical data for complete results

TABLE A1. ANALYTICAL RESULTS

LABORATORY COMMERCIAL SERVICES
A Division Of Consumers Energy Company

CUSTOMER	LTI - Limno-Tech, Inc. - LTI Project # JD7 - Allied Paper				Project Number CHEM-98-1701	
Sample Identification	Tank-A				Method	
Sample Type	water				Blank	
Sample Date	09-15-98				-	
Received Date	09-16-98				-	
Analysis Date	09-16-98				09-16-98	
Report Date	09-17-98				09-17-98	
Control Number	981701-01				981701-mb	
PCB, ug/L - Method 8080						TMDL
PCB-1016	nd				nd	0.1
PCB-1221	nd				nd	0.1
PCB-1232	nd				nd	0.1
PCB-1242	nd				nd	0.1
PCB-1248	nd				nd	0.1
PCB-1254	nd				nd	0.1
PCB-1260	nd				nd	0.1

NOTES: TMDL = Target Method Detection Limit, ug/L (parts-per-billion)
nd = Parameter Not Detected At TMDL

Reviewed By _____ Date 09/17/98 Data File 981701

TABLE A1. ANALYTICAL RESULTS

LABORATORY COMMERCIAL SERVICES
A Division Of Consumers Energy Company

CUSTOMER	LTI – Limno-Tech, Inc. – LTI Project # JD7 – Allied Paper				Project Number CHEM-98-1799	
Sample Identification	Tank-B				Method	
Sample Type	water				Blank	
Sample Date	09-30-98				–	
Received Date	10-01-98				–	
Analysis Date	10-01-98				10-01-98	
Report Date	10-02-98				10-02-98	
Control Number	981799-01				981799-mb	
PCB, ug/L – Method 8080						TMDL
PCB-1016	nd				nd	0.1
PCB-1221	nd				nd	0.1
PCB-1232	nd				nd	0.1
PCB-1242	nd				nd	0.1
PCB-1248	nd				nd	0.1
PCB-1254	nd				nd	0.1
PCB-1260	nd				nd	0.1

NOTES: TMDL = Target Method Detection Limit, ug/L (parts-per-billion)
nd = Parameter Not Detected At TMDL

Reviewed By MWJ Date 100298 Data File 981799

- TABLE A1. ANALYTICAL RESULTS

LABORATORY COMMERCIAL SERVICES

A Division Of Consumers Energy Company

CUSTOMER	LTI - Limno-Tech, Inc. - LTI Project # JD7 - Allied Paper				Project Number CHEM-98-1831	
Sample Identification	Tank-C				Method	
Sample Type	water				Blank	
Sample Date	10-05-98				-	
Received Date	10-06-98				-	
Analysis Date	10-06-98				10-06-98	
Report Date	10-07-98				10-07-98	
Control Number	981831-01				981831-01	
PCB, ug/L - Method 8080						TMDL
PCB-1016	nd				nd	0.1
PCB-1221	nd				nd	0.1
PCB-1232	nd				nd	0.1
PCB-1242	nd				nd	0.1
PCB-1248	nd				nd	0.1
PCB-1254	nd				nd	0.1
PCB-1260	nd				nd	0.1

NOTES: TMDL = Target Method Detection Limit, ug/L (parts-per-billion)
nd = Parameter Not Detected At TMDL

Reviewed By MWJ Date 10 07 98 Data File 981831

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmes.com
Internet: http://www.wmes.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: October 29, 1998 - Revised - November 18, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 28, 1998.

Sample ID: WWINF-001 Lab ID: 9810352-01 Collected: 10/28/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/14/98	date completed		MBR	EPA 3611	
Florisil Cleanup	11/14/98	date completed		MBR	EPA 3620	
Liq/Liq Ext. for PCBs	10/28/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/14/98	DGK		0.13
PCB-1221	ND	µg/L	11/14/98	DGK		1.0
PCB-1232	ND	µg/L	11/14/98	DGK		0.13
PCB-1242	ND	µg/L	11/14/98	DGK		0.13
PCB-1248	ND	µg/L	11/14/98	DGK		0.12
PCB-1254	ND	µg/L	11/14/98	DGK		0.11
PCB-1260	ND	µg/L	11/14/98	DGK		0.13
Total PCBs	ND	µg/L	11/14/98	DGK		1.3
Silica Gel Cleanup	11/14/98	date completed		MBR	EPA 3630	

Sample ID: WWEFF-001 Lab ID: 9810352-02 Collected: 10/28/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/14/98	date completed		MBR	EPA 3611	
Florisil Cleanup	11/14/98	date completed		MBR	EPA 3620	
Liq/Liq Ext. for PCBs	10/28/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/14/98	DGK		0.10
PCB-1221	ND	µg/L	11/14/98	DGK		0.10
PCB-1232	ND	µg/L	11/14/98	DGK		0.10
PCB-1242	ND	µg/L	11/14/98	DGK		0.10
PCB-1248	ND	µg/L	11/14/98	DGK		0.16
PCB-1254	ND	µg/L	11/14/98	DGK		0.11
PCB-1260	ND	µg/L	11/14/98	DGK		0.14
Total PCBs	ND	µg/L	11/14/98	DGK		0.40
Silica Gel Cleanup	11/14/98	date completed		MBR	EPA 3630	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 11, 1998 - Revised - November 18, 1998

ANALYSIS OF: Soil and Water Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 7, 1998.

Sample ID: WWINF-002 Lab ID: 9811107-04 Collected: 11/07/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/14/98	date completed		MBR	EPA 3611	
Florisil Cleanup	11/14/98	date completed		MBR	EPA 3620	
Liq/Liq Ext. for PCBs	11/07/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/14/98	DAH		0.42
PCB-1221	ND	µg/L	11/14/98	DAH		1.3
PCB-1232	ND	µg/L	11/14/98	DAH		0.42
PCB-1242	ND	µg/L	11/14/98	DAH		0.42
PCB-1248	ND	µg/L	11/14/98	DAH		0.41
PCB-1254	ND	µg/L	11/14/98	DAH		0.10
PCB-1260	ND	µg/L	11/14/98	DAH		0.19
Total PCBs	ND	µg/L	11/14/98	DAH		1.9
Silica Gel Cleanup	11/14/98	date completed		MBR	EPA 3630	

Sample ID: WWEFF-002 Lab ID: 9811107-05 Collected: 11/07/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/14/98	date completed		MBR	EPA 3611	
Florisil Cleanup	11/14/98	date completed		MBR	EPA 3620	
Liq/Liq Ext. for PCBs	11/07/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/14/98	DAH		0.16
PCB-1221	ND	µg/L	11/14/98	DAH		0.10
PCB-1232	ND	µg/L	11/14/98	DAH		0.16
PCB-1242	ND	µg/L	11/14/98	DAH		0.16
PCB-1248	ND	µg/L	11/14/98	DAH		0.20
PCB-1254	ND	µg/L	11/14/98	DAH		0.10
PCB-1260	ND	µg/L	11/14/98	DAH		0.27
Total PCBs	ND	µg/L	11/14/98	DAH		0.60
Silica Gel Cleanup	11/14/98	date completed		MBR	EPA 3630	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 10, 1998 - Revised - November 18, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 9, 1998.

Sample ID: WWINF-003 Lab ID: 9811122-01 Collected: 11/09/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/14/98	date completed		MBR	EPA 3611	
Florisil Cleanup	11/14/98	date completed		MBR	EPA 3620	
Liq/Liq Ext. for PCBs	11/09/98	prep. date		MBR	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/14/98	DGK		0.12
PCB-1221	ND	µg/L	11/14/98	DGK		0.13
PCB-1232	ND	µg/L	11/14/98	DGK		0.12
PCB-1242	ND	µg/L	11/14/98	DGK		0.12
PCB-1248	ND	µg/L	11/14/98	DGK		0.12
PCB-1254	ND	µg/L	11/14/98	DGK		0.12
PCB-1260	ND	µg/L	11/14/98	DGK		0.11
Total PCBs	ND	µg/L	11/14/98	DGK		0.37
Silica Gel Cleanup	11/14/98	date completed		MBR	EPA 3630	

Sample ID: TMP-031 Lab ID: 9811122-02 Collected: 11/09/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Cooler Temperature	3	degrees C	11/09/98	RKZ	Thermometer	

ND = Not Detected
MDL = Method Dectection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmes.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 11, 1998 - Revised - November 18, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 10, 1998.

Sample ID: WWINF-004 Lab ID: 9811131-01 Collected: 11/10/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Tot. Pet. Hydrocarbons	ND	µg/L	11/11/98	JA	EPA 1664	2,000
Cadmium	ND	µg/L	11/11/98	JA	EPA 6010	10
Chromium	ND	µg/L	11/11/98	JA	EPA 6010	5
Copper	ND	µg/L	11/11/98	JA	EPA 6010	10
Lead	ND	µg/L	11/11/98	JA	EPA 6010	50
Mercury	ND	µg/L	11/11/98	MBR	EPA 7470	0.2
Metals Prep, Aqueous	11/10/98	date digested		MBR	EPA 3010	
Nickel	ND	µg/L	11/11/98	JA	EPA 6010	10
Zinc	18	µg/L	11/11/98	JA	EPA 6010	10
Alumina Cleanup	11/11/98	date completed		DGK	EPA 3611	
BTEX					EPA 8260	
Benzene	ND	µg/L	11/10/98	DAH		1.0
Toluene	ND	µg/L	11/10/98	DAH		1.0
Ethyl Benzene	ND	µg/L	11/10/98	DAH		1.0
Total Xylenes	ND	µg/L	11/10/98	DAH		1.0
Florisil Cleanup	11/11/98	date completed		DGK	EPA 3620	
Liq/Liq Ext. for PCBs	11/11/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/11/98	DGK		0.11
PCB-1221	ND	µg/L	11/11/98	DGK		0.11
PCB-1232	ND	µg/L	11/11/98	DGK		0.11
PCB-1242	ND	µg/L	11/11/98	DGK		0.11
PCB-1248	ND	µg/L	11/11/98	DGK		0.14
PCB-1254	ND	µg/L	11/11/98	DGK		0.11
PCB-1260	ND	µg/L	11/11/98	DGK		0.11
Total PCBs	ND	µg/L	11/11/98	DGK		0.36
Silica Gel Cleanup	11/11/98	date completed		DGK	EPA 3630	

Sample ID: TMP-032 Lab ID: 9811131-02 Collected: 11/10/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Cooler Temperature	3	degrees C	11/10/98	PJC	Thermometer	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9763
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 14, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray (TBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 13, 1998.

Sample ID: WW-INF-005 Lab ID: 9811181-01 Collected: 11/13/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
pH	8.0	s.u.	11/14/98	JA	EPA 150.1	0-14
Tot. Pet. Hydrocarbons	ND	µg/L	11/14/98	JA	EPA 1664	2,000
Total Cyanide	ND	µg/L	11/14/98	JA	APHA 4500-CN	5
Cadmium	ND	µg/L	11/14/98	JA	EPA 6010	10
Chromium	ND	µg/L	11/14/98	JA	EPA 6010	5
Copper	ND	µg/L	11/14/98	JA	EPA 6010	10
Lead	ND	µg/L	11/14/98	JA	EPA 6010	5
Mercury	ND	µg/L	11/14/98	MBR	EPA 7470	0.2
Metals Prep, Aqueous	11/13/98	date digested		JA	EPA 3010	
Nickel	ND	µg/L	11/14/98	JA	EPA 6010	10
Zinc	16	µg/L	11/14/98	JA	EPA 6010	10
Alumina Cleanup	11/13/98	date completed		DGK	EPA 3611	
BTEX					EPA 8260	
Benzene	ND	µg/L	11/13/98	DAH		1.0
Toluene	ND	µg/L	11/13/98	DAH		1.0
Ethyl Benzene	ND	µg/L	11/13/98	DAH		1.0
Total Xylenes	ND	µg/L	11/13/98	DAH		1.0
Florisil Cleanup	11/13/98	date completed		DGK	EPA 3620	
Liq/Liq Ext. for PCBs	11/13/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/13/98	DGK		0.11
PCB-1221	ND	µg/L	11/13/98	DGK		0.90
PCB-1232	ND	µg/L	11/13/98	DGK		0.11
PCB-1242	ND	µg/L	11/13/98	DGK		0.41
PCB-1248	ND	µg/L	11/13/98	DGK		0.46
PCB-1254	ND	µg/L	11/13/98	DGK		0.13
PCB-1260	ND	µg/L	11/13/98	DGK		0.15
Total PCBs	ND	µg/L	11/13/98	DGK		1.5
Silica Gel Cleanup	11/13/98	date completed		DGK	EPA 3630	

Sample ID: TMP-036 Lab ID: 9811181-02 Collected: 11/13/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Cooler Temperature	4	degrees C	11/13/98	TBB	Thermometer	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 18, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 17, 1998.

Sample ID: WW-INF-006 Lab ID: 9811211-01 Collected: 11/17/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/17/98	date completed		WJC	EPA 3611	
Florisil Cleanup	11/17/98	date completed		WJC	EPA 3620	
Liq/Liq Ext. for PCBs	11/17/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/17/98	DGK		0.27
PCB-1221	ND	µg/L	11/17/98	DGK		0.21
PCB-1232	ND	µg/L	11/17/98	DGK		0.27
PCB-1242	ND	µg/L	11/17/98	DGK		0.27
PCB-1248	ND	µg/L	11/17/98	DGK		0.20
PCB-1254	ND	µg/L	11/17/98	DGK		0.25
PCB-1260	ND	µg/L	11/17/98	DGK		0.10
Total PCBs	ND	µg/L	11/17/98	DGK		0.58
Silica Gel Cleanup	11/17/98	date completed		WJC	EPA 3630	

NOTE: Results are based on a 4-liter sample extraction

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmes.com
Internet: http://www.wmes.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 19, 1998 - Revised - November 24, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 18, 1998.

Sample ID: WW-EFF-007 Lab ID: 9811229-01 Collected: 11/18/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
pH	8.1	s.u.	11/18/98	WS	EPA 150.1	0-14
Tot. Pet. Hydrocarbons	ND	µg/L	11/19/98	JA	EPA 1664	2,000
Total Cyanide	ND	µg/L	11/19/98	MG	APHA 4500-CN	5
Total Suspended Solids	9,000	µg/L	11/24/98	JA	EPA 160.2	4,000
Cadmium	ND	µg/L	11/19/98	JA	EPA 6010	10
Chromium	ND	µg/L	11/19/98	JA	EPA 6010	5
Copper	ND	µg/L	11/19/98	JA	EPA 6010	10
Lead	ND	µg/L	11/19/98	JA	EPA 6010	50
Mercury	ND	µg/L	11/19/98	WS	EPA 7470	0.2
Metals Prep, Aqueous	11/19/98	date digested		JA	EPA 3010	
Nickel	ND	µg/L	11/19/98	JA	EPA 6010	10
Zinc	24	µg/L	11/19/98	JA	EPA 6010	10
Alumina Cleanup	11/18/98	date completed		DGK	EPA 3611	
BTEX					EPA 8260	
Benzene	ND	µg/L	11/19/98	DAH		1.0
Toluene	ND	µg/L	11/19/98	DAH		1.0
Ethyl Benzene	ND	µg/L	11/19/98	DAH		1.0
Total Xylenes	ND	µg/L	11/19/98	DAH		1.0
Florisil Cleanup	11/18/98	date completed		DGK	EPA 3620	
Liq/Liq Ext. for PCBs	11/18/98	prep. date		DGK	EPA 3310	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/18/98	DGK		0.10
PCB-1221	ND	µg/L	11/18/98	DGK		0.15
PCB-1232	ND	µg/L	11/18/98	DGK		0.10
PCB-1242	ND	µg/L	11/18/98	DGK		0.10
PCB-1248	ND	µg/L	11/18/98	DGK		0.12
PCB-1254	ND	µg/L	11/18/98	DGK		0.10
PCB-1260	ND	µg/L	11/18/98	DGK		0.10
Total PCBs	ND	µg/L	11/18/98	DGK		0.37
Silica Gel Cleanup	11/18/98	date completed		DGK	EPA 3630	

Discharge to Creek 11/27/98
Tank #2

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 20, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 19, 1998.

Sample ID: WW-EFF-007 **Lab ID:** 9811249-01 **Collected:** 11/19/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	11/19/98	date completed		DGK	EPA 3611	
Florisil Cleanup	11/19/98	date completed		DGK	EPA 3620	
Liq/Liq Ext. for PCBs	11/19/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/19/98	DGK		0.10
PCB-1221	ND	µg/L	11/19/98	DGK		0.10
PCB-1232	ND	µg/L	11/19/98	DGK		0.10
PCB-1242	ND	µg/L	11/19/98	DGK		0.10
PCB-1248	ND	µg/L	11/19/98	DGK		0.18
PCB-1254	ND	µg/L	11/19/98	DGK		0.10
PCB-1260	ND	µg/L	11/19/98	DGK		0.10
Total PCBs	ND	µg/L	11/19/98	DGK		0.38
Silica Gel Cleanup	11/19/98	date completed		DGK	EPA 3630	

Multiple Extractions

Tank #2

NOTE: Results are based on a 4-liter sample extraction.

ND = Not Detected
MDL = Method Dectection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmes.com
Internet: http://www.wmcsi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 11, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 10, 1998.

Sample ID: WW-EFF-008 Lab ID: 9812157-01 Collected: 12/10/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	12/11/98	date completed		WJC	EPA 3611	
Florisil Cleanup	12/11/98	date completed		WJC	EPA 3620	
Liq/Liq Ext. for PCBs	12/11/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	12/11/98	DGK		0.17
PCB-1221	ND	µg/L	12/11/98	DGK		0.12
PCB-1232	ND	µg/L	12/11/98	DGK		0.17
PCB-1242	ND	µg/L	12/11/98	DGK		0.17
PCB-1248	ND	µg/L	12/11/98	DGK		0.10
PCB-1254	ND	µg/L	12/11/98	DGK		0.12
PCB-1260	ND	µg/L	12/11/98	DGK		0.12
Total PCBs	ND	µg/L	12/11/98	DGK		0.41
Silica Gel Cleanup	12/11/98	date completed		WJC	EPA 3630	

12/23/98

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 15, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 14, 1998.

Sample ID: WN-EFF-009 Lab ID: 9812194-01 Collected: 12/14/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Alumina Cleanup	12/15/98	date completed		DGK	EPA 3611	
Florisil Cleanup	12/15/98	date completed		DGK	EPA 3620	
Liq/Liq Ext. for PCBs	12/15/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	12/15/98	DGK		0.12
PCB-1221	ND	µg/L	12/15/98	DGK		0.10
PCB-1232	ND	µg/L	12/15/98	DGK		0.12
PCB-1242	ND	µg/L	12/15/98	DGK		0.12
PCB-1248	ND	µg/L	12/15/98	DGK		0.10
PCB-1254	ND	µg/L	12/15/98	DGK		0.10
PCB-1260	ND	µg/L	12/15/98	DGK		0.11
Total PCBs	N/A	µg/L	12/15/98	DGK		N/A
Silica Gel Cleanup	12/15/98	date completed		DGK	EPA 3630	

Tank #2

ND = Not Detected
MDL = Method Detection Limit

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo MI 49001

Phone 616 381-9666

Fax 616 381-9696

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

KAR Project No. : ***985392***
Date Reported : ***12/23/98***
Date Activated : ***12/17/98***
Date Due : ***12/23/98***
Date Validated : ***12/23/98***

Attn : ***Mr. Hal Blakemore***

Project Description : ***Analysis of one aqueous sample from Kalamazoo Rapid.***

Dear Client,

Your laboratory data is presented to you in this report. All tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received - unless otherwise stated under the "Comments" heading.

If you wish to contact us about this work please mention KAR Project No. 985392. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

LABORATORY REPORT

KAR Project No. : ***985392***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***12/23/98***

Project Description : ***Analysis of one aqueous sample from Kalamazoo Rapid.***

Sample ID : ***"WW-eff-010"***

Sampled By :

Sample Date : ***12/16/98***

Sample Time : ***1700***

Date Received : ***12/17/98***

Sample Type : ***aqueous***

KAR Sample No. : ***985392-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/18/98	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	12/21/98	MSZ	
PCB Aroclors, total	NA		EPA 8082	12/21/98	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo MI 49001

Phone 616 381-9666

Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

KAR Project No. : ***985544***
Date Reported : ***01/11/99***
Date Activated : ***12/30/98***
Date Due : ***01/14/99***
Date Validated : ***01/07/99***

Attn : ***Mr. Hal Blakemore***

Project Description : ***Analysis of one aqueous sample from Kalamazoo Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. All tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received - unless otherwise stated under the "Comments" heading.

If you wish to contact us about this work please mention KAR Project No. 985544. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

LABORATORY REPORT

KAR Project No. : ***985544***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***01/11/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo Superfund.***

Sample ID : ***"WW-EFF-010"***

Sampled By : *NA of Roy F. Weston*
Sample Date : *12/29/1998*
Sample Time : *1720*

Date Received : *12/30/1998*
Sample Type : *aqueous*
KAR Sample No. : *985544-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	*10*	*mg/L*	*EPA 160.2*	*01/04/99*	*POH*	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. :	***990581***
Date Reported :	***02/12/99***
Date Activated :	***02/11/99***
Date Due :	***02/12/99***
Date Validated :	***02/12/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990581. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *990581*

Client: *Roy F. Weston, Inc.*

Date Reported : *02/12/99*

Project Description : *Analysis of one aqueous sample from Kalamazoo River Superfund.*

Sample ID : *"WW-EFF-011"*

Sampled By : *OGN of Roy F. Weston, Inc.*

Sample Date : *2/11/99*

Sample Time : *0930*

Date Received : *2/11/99*

Sample Type : *aqueous*

KAR Sample No. : *990581-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	2/11/99	PML	
Prep metals	Completed		EPA 30xx,200 x	2/11/99	PML	
Cadmium total	<5	ug/L	EPA 200.7	2/12/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	2/12/99	PML	
Copper total	50	ug/L	EPA 200.7	2/12/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	2/12/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	2/11/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	2/12/99	PML	
Zinc total	20	ug/L	EPA 200.7	2/12/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	2/11/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	2/11/99	RJC	
	8.3	S U	EPA 150.1	2/11/99	PCH	
..DNR Scan 2	See below		EPA 8021	2/11/99	LAE	
Prep VOA	Completed		EPA 5030	2/11/99	LAE	
Benzene	<1	ug/L	EPA 8021	2/11/99	LAE	
Ethylbenzene	<1	ug/L	EPA 8021	2/11/99	LAE	
M-and/or p-xylene	<1	ug/L	EPA 8021	2/11/99	LAE	
O-Xylene	<1	ug/L	EPA 8021	2/11/99	LAE	
Toluene	<1	ug/L	EPA 8021	2/11/99	LAE	
Prep ECD	Completed		EPA 3510	2/11/99	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/11/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	2/11/99	MSZ	

Tank #2 125,379 76gal
Discharge Cotk
2/12/99

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. : ***990620***
Date Reported :
Date Activated : ***02/15/99***
Date Due : ***02/16/99***
Date Validated :

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990620. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *990620*

Client: *Roy F. Weston, Inc.*

Date Reported :

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"WW-EFF-012"***

Sampled By : *OGN of Roy F. Weston, Inc.*
Sample Date : *2/15/99*
Sample Time : *0915*

Date Received : *2/15/99*
Sample Type : *aqueous*
KAR Sample No. : *990620-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	2/15/99	PML	
Prep, metals	Completed		EPA 30xx,200.x	2/15/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	2/16/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	2/16/99	PML	
Copper, total	40	ug/L	EPA 200.7	2/16/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	2/16/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	2/16/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	2/16/99	PML	
Zinc, total	60	ug/L	EPA 200.7	2/16/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	2/15/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	2/15/99	RJC	
PH	8.0	S.U	EPA 150.1	2/15/99	PCH	
MDNR Scan 2	See below		EPA 8021	2/15/99	LAE	
Prep, VOA	Completed		EPA 5030	2/15/99	LAE	
Benzene	<1	ug/L	EPA 8021	2/15/99	LAE	
Ethylbenzene	<1	ug/L	EPA 8021	2/15/99	LAE	
M-and/or p-xylene	<1	ug/L	EPA 8021	2/15/99	LAE	
O-Xylene	<1	ug/L	EPA 8021	2/15/99	LAE	
Toluene	<1	ug/L	EPA 8021	2/15/99	LAE	
Prep, ECD	Completed		EPA 3535	2/15/99	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	2/16/99	MSZ	

Tank #2
Discharge C of K
2/16/99

Actual Discharge = 33"
95,115.68 gals

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. :	***990630***
Date Reported :	***02/17/99***
Date Activated :	***02/16/99***
Date Due :	***02/17/99***
Date Validated :	***02/17/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990630. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990630***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/17/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"WW-EFF-013"***

Sampled By : ***OGN of Roy F. Weston, Inc.***

Sample Date : ***2/16/99***

Sample Time : ***0900***

Date Received : ***2/16/99***

Sample Type : ***aqueous***

KAR Sample No. : ***990630-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	2/16/99	DBL	
Prep metals	Completed		EPA 30xx,200.x	2/16/99	MTM	
Cadmium total	<5	ug/L	EPA 200.7	2/16/99	MTM	
Chromium, total	<10	ug/L	EPA 200.7	2/16/99	MTM	
Copper total	110	ug/L	EPA 200.7	2/16/99	MTM	
Lead, total, by ICP	<50	ug/L	EPA 200.7	2/16/99	MTM	
Mercury, total low level	<0.2	ug/L	EPA 245.2	2/17/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	2/16/99	MTM	
Zinc, total	<10	ug/L	EPA 200.7	2/16/99	MTM	
Cyanide, total	<5	ug/L	EPA 335.2	2/16/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	2/16/99	RJC	
PH	7.9	S.U	EPA 150.1	2/16/99	PCH	
MDNR Scan 2	See below		EPA 8021	2/16/99	LAE	
Prep VOA	Completed		EPA 5030	2/16/99	LAE	
Benzene	<1	ug/L	EPA 8021	2/16/99	LAE	
Ethylbenzene	<1	ug/L	EPA 8021	2/16/99	LAE	
M-and/or p-xylene	<1	ug/L	EPA 8021	2/16/99	LAE	
O-Xylene	<1	ug/L	EPA 8021	2/16/99	LAE	
Toluene	<1	ug/L	EPA 8021	2/16/99	LAE	
Prep ECD	Completed		EPA 3510	2/17/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/16/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	2/16/99	MSZ	

Tank # 1 - 45" = 129703.20 G

Actual Discharge

= 45" = 123,938.61 Gal

2/17/99

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : *Mr. Hal Blakemore*

KAR Project No. :	***990696***
Date Reported :	***02/19/99***
Date Activated :	***02/18/99***
Date Due :	***02/19/99***
Date Validated :	***02/19/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990696. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990696***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***02/19/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"WW-EFF-014"***

Sampled By : *OGN of Roy F. Weston, Inc.* **Date Received :** *2/18/1999*

Sample Date : *2/18/1999* **Sample Type :** *aqueous*

Sample Time : *1145* **KAR Sample No. :** *990696-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	2/18/1999	MJY	
PCB Arcclor 1016	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclor 1221	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclor 1232	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclor 1242	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclor 1248	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclor 1254	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclor 1260	<0.05	ug/L	EPA 8082	2/18/1999	MSZ	
PCB Arcclors total	NA		EPA 8082	2/18/1999	MSZ	

109,527.15 g

Tank #2 = 38" = ~~1,095.15~~

Actual Discharge = 32" = 92,233.39 gal

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. : ***990717***
Date Reported : ***02/23/99***
Date Activated : ***02/22/99***
Date Due : ***02/23/99***
Date Validated : ***02/23/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990717. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *990717*

Client: *Roy F. Weston, Inc.*

Date Reported : *02/23/99*

Project Description : *Analysis of one aqueous sample from Kalamazoo River Superfund.*

Sample ID : *"WW-EFF-015"*

Sampled By : *OGN of Roy F. Weston, Inc.*

Sample Date : *2/22/99*

Sample Time : *1020*

Date Received : *2/22/99*

Sample Type : *aqueous*

KAR Sample No. : *990717-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	2/22/99	DBL	
Prep metals	Completed		EPA 30xx,200 x	2/22/99	PML	
Cadmium total	<5	ug/L	EPA 200.7	2/22/99	MTM	
Chromium, total	<10	ug/L	EPA 200.7	2/22/99	MTM	
Copper, total	50	ug/L	EPA 200.7	2/22/99	MTM	
Lead, total, by ICP	<50	ug/L	EPA 200.7	2/22/99	MTM	
Mercury, total low level	<0.2	ug/L	EPA 245.2	2/23/99	MTM	
Nickel, total	<20	ug/L	EPA 200.7	2/22/99	MTM	
Zinc, total	70	ug/L	EPA 200.7	2/22/99	MTM	
Cyanide, total	<5	ug/L	EPA 335.2	2/22/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	2/22/99	DRA	
PH	7.6	S.U	EPA 150.1	2/22/99	PCH	
MDNR Scan 2	See below		EPA 624	2/22/99	JAR	
Prep VOA	Completed		EPA 624	2/22/99	JAR	
Benzene	<1	ug/L	EPA 624	2/22/99	JAR	
Ethylbenzene	<1	ug/L	EPA 624	2/22/99	JAR	
M-and/or p-xylene	<1	ug/L	EPA 624	2/22/99	JAR	
O-Xylene	<1	ug/L	EPA 624	2/22/99	JAR	
Toluene	<1	ug/L	EPA 624	2/22/99	JAR	
Prep ECD	Completed		EPA 3510	2/22/99	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/23/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	2/23/99	MSZ	

Held until R Almond cups able to review analytical, water release 3-4-99 R.P.

TANK #1 = 48" = 138,350 GALLONS

ACTUAL DISCHARGE

DISCHARGED TO CITY OF K-ZOO. 2/23/99.

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. : ***990807***
Date Reported : ***02/26/99***
Date Activated : ***02/25/99***
Date Due : ***02/26/99***
Date Validated : ***02/26/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990807. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *990807*

Client: ***Roy F. Weston, Inc.***

Date Reported : *02/26/99*

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"WW-EFF-016"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *2/25/99*
Sample Time : *1115*

Date Received : *2/25/99*
Sample Type : *aqueous*
KAR Sample No. : *990807-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep_ECD	Completed		EPA 3510	2/25/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	2/26/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : *990807*

Client: *Roy F. Weston, Inc.*

Date Reported : *02/26/99*

Project Description : *Analysis of two aqueous samples from Kalamazoo River Superfund.*

Sample ID : *"WW-CARB-01"*

Sampled By : *OGN of Roy F. Weston*

Sample Date : *2/24/99*

Sample Time : *1700*

Date Received : *2/25/99*

Sample Type : *aqueous*

KAR Sample No. : *990807-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	2/25/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1242	0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/26/99	MSZ	
PCB Aroclors, total	0.05	ug/L	EPA 8082	2/26/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : *Mr. Hal Blakemore*

KAR Project No. :	***990862***
Date Reported :	***03/03/99***
Date Activated :	***03/02/99***
Date Due :	***03/03/99***
Date Validated :	***03/03/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990862. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted.

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990862***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***03/03/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"WW-EFF-017"***

Sampled By : *GN of Roy F. Weston* **Date Received :** *3/2/99*
Sample Date : *3/1/99* **Sample Type :** *aqueous*
Sample Time : *1630* **KAR Sample No. :** *990862-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	3/3/99	DBL	
Prep metals	Completed		EPA 30xx,200.x	3/2/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	3/3/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	3/3/99	PML	
Copper, total	20	ug/L	EPA 200.7	3/3/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	3/3/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	3/3/99	DBL	
Nickel, total	<20	ug/L	EPA 200.7	3/3/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	3/3/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	3/3/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/2/99	RJC	
	7.7	S.U.	EPA 150.1	3/2/99	JMS	Sample received past holding time; result is approximate
DNR Scan 2	See below		EPA 802*	3/2/99	LAE	
Prep VOA	Completed		EPA 5030	3/2/99	LAE	
Benzene	<1	ug/L	EPA 802*	3/2/99	LAE	
Ethylbenzene	<1	ug/L	EPA 802*	3/2/99	LAE	
M-and/or p-xylene	<1	ug/L	EPA 802*	3/2/99	LAE	
O-Xylene	<1	ug/L	EPA 802*	3/2/99	LAE	
Toluene	<1	ug/L	EPA 802*	3/2/99	LAE	
Prep ECD	Completed		EPA 3510	3/2/99	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	3/3/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : *Mr. Hal Blakemore*

KAR Project No. :	***990910***
Date Reported :	***03/04/99***
Date Activated :	***03/03/99***
Date Due :	***03/04/99***
Date Validated :	***03/04/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990910. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990910***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***03/04/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"WW-EFF-18"***

Sampled By : *OGN of Roy F. Weston* **Date Received :** *3/3/99*

Sample Date : *3/3/99* **Sample Type :** *aqueous*

Sample Time : *1330* **KAR Sample No. :** *990910-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	3/3/99	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	3/4/99	MSZ	
PCB Arcolors, total	NA		EPA 8082	3/4/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. :	***990989***
Date Reported :	***03/09/99***
Date Activated :	***03/08/99***
Date Due :	***03/09/99***
Date Validated :	***03/09/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-019).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990989. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990989***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/09/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-019).***

Sample ID : ***"WW-EFF-019"***

Sampled By : ***OGN of Roy F. Weston***

Sample Date : ***3/8/99***

Sample Time : ***1210***

Date Received : ***3/8/99***

Sample Type : ***aqueous***

KAR Sample No. : ***990989-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	3/8/99	DBL	
Prep metals	Completed		EPA 30xx,200.x	3/9/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	3/9/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	3/9/99	PML	
Copper, total	10	ug/L	EPA 200.7	3/9/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	3/9/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	3/9/99	DBL	
Nickel, total	<20	ug/L	EPA 200.7	3/9/99	PML	
Zinc, total	20	ug/L	EPA 200.7	3/9/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	3/9/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/9/99	RJC	
PH	7.7	S.U	EPA 150.1	3/8/99	PCH	
MDNR Scan 2	See below		EPA 8021	3/8/99	LAE	
Prep VOA	Completed		EPA 5030	3/8/99	LAE	
Benzene	<1	ug/L	EPA 8021	3/8/99	LAE	
Ethylbenzene	<1	ug/L	EPA 8021	3/8/99	LAE	
M-and/or p-xylene	<1	ug/L	EPA 8021	3/8/99	LAE	
O-Xylene	<1	ug/L	EPA 8021	3/8/99	LAE	
Toluene	<1	ug/L	EPA 8021	3/8/99	LAE	
Prep ECD	Completed		EPA 3510	3/8/99	SAS	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	3/9/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclors, total	NA		EPA 8082	3/9/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. :	***991067***
Date Reported :	***03/15/99***
Date Activated :	***03/12/99***
Date Due :	***03/15/99***
Date Validated :	***03/15/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (#WW-EFF-020).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991067. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991067***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***03/15/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (#WW-EFF-020).***

Sample ID : ***"WW-EFF-020"***

Sampled By : ***NA of Roy F. Weston*** **Date Received :** ***3/12/99***

Sample Date : ***3/12/99*** **Sample Type :** ***aqueous***

Sample Time : ***0745*** **KAR Sample No. :** ***991067-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	3/12/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Aroclor 1242	0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	3/15/99	MSZ	
PCB Arcolors, total	0.05	ug/L	EPA 8082	3/15/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991128***
Date Reported :	***03/18/99***
Date Activated :	***03/17/99***
Date Due :	***03/18/99***
Date Validated :	***03/18/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-021).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991128 To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance

Respectfully submitted.

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies. Destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991126***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/18/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-021).***

Sample ID : ***"WW-EFF-021"***

Sampled By : ***OGN of Roy F. Weston***

Sample Date : ***3/16/99***

Sample Time : ***1500***

Date Received : ***3/17/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991126-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 7471A	3/17/99	PML	
Prep metals	Completed		EPA 30xx,200.x	3/17/99	DBL	
Cadmium, total	<5	ug/L	EPA 6010B	3/18/99	PML	
Chromium, total	<10	ug/L	EPA 6010B	3/18/99	PML	
Copper, total	20	ug/L	EPA 6010B	3/18/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 6010B	3/18/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 7471A	3/18/99	PML	
Nickel, total	<20	ug/L	EPA 6010B	3/18/99	PML	
Zinc, total	20	ug/L	EPA 6010B	3/18/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	3/17/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/17/99	RJC	
pH	7.5	S.U.	EPA 150.1	3/17/99	PDH	Sample received past holding time; result is approximate
MDNR Scan 2	See below		EPA 624	3/17/99	DLB	
Prep VOA	Completed		EPA 624	3/17/99	DLB	
Benzene	<1	ug/L	EPA 624	3/17/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	3/17/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	3/17/99	DLB	
O-Xylene	<1	ug/L	EPA 624	3/17/99	DLB	
Toluene	<1	ug/L	EPA 624	3/17/99	DLB	
Prep ECD	Completed		EPA 3510	3/17/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Arcclors, total	NA	ug/L	EPA 8082	3/18/99	MSZ	
12DCA-D4 (surr spk)	107	% spike recovery	EPA 624	3/17/99	DLB	
BFB (surr spk)	112	% spike recovery	EPA 624	3/17/99	DLB	
Toluene-D8 (surr spk)	92	% spike recovery	EPA 624	3/17/99	DLB	
DCB (pest/PCB surr spk)	50	% spike recovery	EPA 8082	3/18/99	MSZ	
TCMX (surr spk)	27	% spike recovery	EPA 8082	3/18/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991128***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***03/18/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-021).***

Sample ID : ***Lab Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***3/17/99***
Sample Type : ***LMB***
KAR Sample No. : ***991128-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471A	3/17/99	PML	
Prep, metals	Completed		EPA 30xx,200.x	3/17/99	DBL	
Cadmium, total	<5	ug/L	EPA 6010B	3/18/99	PML	
Chromium, total	<10	ug/L	EPA 6010B	3/18/99	PML	
Copper, total	<20	ug/L	EPA 6010B	3/18/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 6010B	3/18/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 7471A	3/18/99	PML	
Nickel, total	<20	ug/L	EPA 6010B	3/18/99	PML	
Zinc, total	<10	ug/L	EPA 6010B	3/18/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	3/17/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/17/99	RJC	
MDNR Scan 2	See below		EPA 624	3/17/99	DLB	
Prep, VOA	Completed		EPA 624	3/17/99	DLB	
Benzene	<1	ug/L	EPA 624	3/17/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	3/17/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	3/17/99	DLB	
O-Xylene	<1	ug/L	EPA 624	3/17/99	DLB	
Toluene	<1	ug/L	EPA 624	3/17/99	DLB	
Prep, ECD	Completed		EPA 3510	3/17/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/18/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/18/99	MSZ	
12DCA-D4 (surr spk)	106	% spike recovery	EPA 624	3/17/99	DLB	
BFB (surr spk)	115	% spike recovery	EPA 624	3/17/99	DLB	
Toluene-D8 (surr spk)	94	% spike recovery	EPA 624	3/17/99	DLB	
DCB (pest/PCB surr spk)	73	% spike recovery	EPA 8082	3/18/99	MSZ	
TCMX (surr spk)	35	% spike recovery	EPA 8082	3/18/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991202***
Date Reported :	***03/23/99***
Date Activated :	***03/22/99***
Date Due :	***03/23/99***
Date Validated :	***03/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-022).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991202. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted.

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991202***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-022).***

Sample ID : ***"WW-EFF-022"***

Sampled By : *OGN of Roy F. Weston, Inc.*
Sample Date : *3/22/1999*
Sample Time : *1030*

Date Received : *3/22/1999*
Sample Type : *aqueous*
KAR Sample No. : *991202-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 7470	3/22/1999	DBL	
Prep metals	Completed		EPA 30xx,200.x	3/22/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	3/23/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	3/23/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	3/23/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	3/23/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 7470A	3/23/1999	DBL	
Nickel, total	<20	ug/L	EPA 200.7	3/23/1999	PML	
Zinc, total	10	ug/L	EPA 200.7	3/23/1999	PML	
Cyanide, total	<5*	ug/L	EPA 335.2	3/22/1999	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/22/1999	RJC	
PH	8.0	S.U.	EPA 150.1	3/22/1999	PDH	
MDNR Scan 2	See below		EPA 624	3/22/1999	DLB	
Prep VOA	Completed		EPA 624	3/22/1999	DLB	
Benzene	<1	ug/L	EPA 624	3/22/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	3/22/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	3/22/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	3/22/1999	DLB	
Toluene	<1	ug/L	EPA 624	3/22/1999	DLB	
Prep ECD	Completed		EPA 3510	3/22/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Arcolors, total	NA		EPA 8082	3/23/1999	MSZ	
12DCA-D4 (surr spk)	107	% spike recovery	EPA 624	3/22/1999	DLB	
EFB (surr spk)	110	% spike recovery	EPA 624	3/22/1999	DLB	
Toluene-D8 (surr spk)	88	% spike recovery	EPA 624	3/22/1999	DLB	
DCB (pest/PCB surr spk)	52	% spike recovery	EPA 8082	3/23/1999	MSZ	
TCMX (surr spk)	26	% spike recovery	EPA 8082	3/23/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991202***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-022).***

Sample ID : ***Lab Method Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *3/22/1999*

Sample Type : *LMB*

KAR Sample No. : *991202-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	3/22/1999	DBL	
Prep, metals	Completed		EPA 30xx,200 x	3/22/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	3/23/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	3/23/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	3/23/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	3/23/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 7470A	3/23/1999	DBL	
Nickel, total	<20	ug/L	EPA 200.7	3/23/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	3/23/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	3/22/1999	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/22/1999	RJC	
MDNR Scan 2	See below		EPA 624	3/22/1999	DLB	
Prep, VOA	Completed		EPA 624	3/22/1999	DLB	
Benzene	<1	ug/L	EPA 624	3/22/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	3/22/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	3/22/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	3/22/1999	DLB	
Toluene	<1	ug/L	EPA 624	3/22/1999	DLB	
Prep, ECD	Completed		EPA 3510	3/22/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/23/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/23/1999	MSZ	
12DCA-D4 (surr spk)	106	% spike recovery	EPA 624	3/22/1999	DLB	
BFB (surr spk)	113	% spike recovery	EPA 624	3/22/1999	DLB	
Toluene-D8 (surr spk)	92	% spike recovery	EPA 624	3/22/1999	DLB	
DCB (pest/PCB surr spk)	87	% spike recovery	EPA 8082	3/23/1999	MSZ	
TCMX (surr spk)	42	% spike recovery	EPA 8082	3/23/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-3666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991240***
Date Reported :	***03/25/99***
Date Activated :	***03/24/99***
Date Due :	***03/25/99***
Date Validated :	***03/25/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-023).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991240. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991240***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***03/25/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-023).***

Sample ID : ***"WW-EFF-023"***

Sampled By : *OGN of Roy F Weston* **Date Received :** *3/24/99*

Sample Date : *3/24/99* **Sample Type :** *aqueous*

Sample Time : *0915* **KAR Sample No. :** *991240-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	3/24/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
PCB Aroclors, total	NA		EPA 8082	3/25/99	MSZ	
DCB (pest/PCB surr spk)	25	% spike recovery	EPA 8082	3/25/99	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	14	% spike recovery	EPA 8082	3/25/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991240***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/25/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-023).***

Sample ID : ***Lab Method Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***3/24/99***

Sample Type : ***LMB***

KAR Sample No. : ***991240-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	3/24/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/25/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/25/99	MSZ	
DCB (pest/PCB surr spk)	72	% spike recovery	EPA 8082	3/25/99	MSZ	
TCMX (surr spk)	51	% spike recovery	EPA 8082	3/25/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991285***
Date Reported :	***03/26/99***
Date Activated :	***03/26/99***
Date Due :	***03/26/99***
Date Validated :	***03/26/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-024).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991285. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666

LABORATORY REPORT

KAR Project No. : ***991285***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***03/26/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-024).***

Sample ID : ***"WW-EFF-024"***

Sampled By : ***TRL of Roy F. Weston*** **Date Received :** ***3/26/99***

Sample Date : ***3/26/99*** **Sample Type :** ***aqueous***

Sample Time : ***1020*** **KAR Sample No. :** ***991285-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	3/26/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/26/99	MSZ	
DCB (pest/PCB surr spk)	60	% spike recovery	EPA 8082	3/26/99	MSZ	
TCMX (surr spk)	36	% spike recovery	EPA 8082	3/26/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991285***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/26/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-024).***

Sample ID : ***Lab Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***3/26/99***
Sample Type : ***LMB***
KAR Sample No. : ***991285-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	3/26/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/26/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/26/99	MSZ	
DCB (pest/PCB surr spk)	70	% spike recovery	EPA 8082	3/26/99	MSZ	
TCMX (surr spk)	40	% spike recovery	EPA 8082	3/26/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991310***
Date Reported :	***03/30/99***
Date Activated :	***03/29/99***
Date Due :	***03/30/99***
Date Validated :	***03/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-025).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991310. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666

LABORATORY REPORT

KAR Project No. : ***991310***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-025).***

Sample ID : ***"WW-EFF-025"***

Sampled By : ***OGN of Roy F. Weston***

Sample Date : ***3/29/99***

Sample Time : ***0845***

Date Received : ***3/29/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991310-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 7470A	3/29/99	DBL	
Prep metals	Completed		EPA 3005, 200.x	3/29/99	DBL	
Cadmium, total	<5	ug/L	EPA 6010	3/30/99	DBL	
Chromium, total	<10	ug/L	EPA 6010	3/30/99	DBL	
Copper, total	<10	ug/L	EPA 6010	3/30/99	DBL	
Lead, total, by ICP	<50	ug/L	EPA 6010	3/30/99	DBL	
Mercury, total, low level	<0.2	ug/L	EPA 7470A	3/30/99	DBL	
Nickel, total	<20	ug/L	EPA 6010	3/30/99	DBL	
Zinc, total	<10	ug/L	EPA 6010	3/30/99	DBL	
Cyanide, total	<5	ug/L	EPA 335.2	3/29/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	3/29/99	RJC	
PH	7.8	S.U.	EPA 150.1	3/29/99	PCH	
MDHR Scan 2	See below		EPA 624	3/29/99	DLB	
Prep VOA	Completed		EPA 624	3/29/99	DLB	
Benzene	<1	ug/L	EPA 624	3/29/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	3/29/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	3/29/99	DLB	
O-Xylene	<1	ug/L	EPA 624	3/29/99	DLB	
Toluene	<1	ug/L	EPA 624	3/29/99	DLB	
Prep ECD	Completed		EPA 3510	3/29/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/29/99	MSZ	
12DCA-D4 (surr spk)	115	% spike recovery	EPA 624	3/29/99	DLB	
EFB (surr spk)	113	% spike recovery	EPA 624	3/29/99	DLB	
Toluene-D8 (surr spk)	90	% spike recovery	EPA 624	3/29/99	DLB	
DCB (pest/PCB surr spk)	33	% spike recovery	EPA 8082	3/29/99	MSZ	
TCMX (surr spk)	18	% spike recovery	EPA 8082	3/29/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

LABORATORY REPORT

KAR Project No. : ***991310***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-025).***

Sample ID : ***Lab Method Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***3/29/99***

Sample Type : ***LMB***

KAR Sample No. : ***991310-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 7470A	3/29/99	DBL	
Prep metals	Completed		EPA 30xx, 200.x	3/29/99	DBL	
Cadmium, total	<5 ✓	ug/L	EPA 6010	3/30/99	DBL	
Chromium, total	<10 ✓	ug/L	EPA 6010	3/30/99	DBL	
Copper, total	<10 ✓	ug/L	EPA 6010	3/30/99	DBL	
Lead, total, by ICP	<50 ✓	ug/L	EPA 6010	3/30/99	DBL	
Mercury, total low level	<0.2 ✓	ug/L	EPA 7470A	3/30/99	DBL	
Nickel, total	<20 ✓	ug/L	EPA 6010	3/30/99	DBL	
Zinc, total	<10 ✓	ug/L	EPA 6010	3/30/99	DBL	
Cyanide, total	<5 ✓	ug/L	EPA 335.2	3/29/99	JAS	
Gravimetric TPH (SGT-HEM)	<5 ✓	mg/L	EPA 1664	3/29/99	RJC	
MDNR Scan 2	See below		EPA 624	3/29/99	DLB	
Prep VOA	Completed		EPA 624	3/29/99	DLB	
Benzene	<1	ug/L	EPA 624	3/29/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	3/29/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	3/29/99	DLB	
O-Xylene	<1	ug/L	EPA 624	3/29/99	DLB	
Toluene	<1	ug/L	EPA 624	3/29/99	DLB	
Prep ECD	Completed		EPA 3510	3/29/99	SAS	
PCB Aroclor 1016	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1221	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1232	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1242	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1248	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1254	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclor 1260	<0.1 ✓	ug/L	EPA 8082	3/29/99	MSZ	
PCB Aroclors, total	NA ✓		EPA 8082	3/29/99	MSZ	
12DCA-D4 (surr spk)	108	% spike recovery	EPA 624	3/29/99	DLB	
BFB (surr spk)	111	% spike recovery	EPA 624	3/29/99	DLB	
Toluene-D8 (surr spk)	89	% spike recovery	EPA 624	3/29/99	DLB	
DCB (pest/PCB surr spk)	76	% spike recovery	EPA 8082	3/29/99	MSZ	
TCMX (surr spk)	16	% spike recovery	EPA 8082	3/29/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991394***
Date Reported :	***04/02/99***
Date Activated :	***04/01/99***
Date Due :	***04/02/99***
Date Validated :	***04/02/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-026).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991394 To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted.

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991394***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/02/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-026).***

Sample ID : ***"WW-EFF-026"***

Sampled By : *OGN of Roy F. Weston*

Sample Date : *3/31/1999*

Sample Time : *1600*

Date Received : *4/1/1999*

Sample Type : *aqueous*

KAR Sample No. : *991394-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/1/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/1/1999	MSZ	
DCB (pest/PCB surr spk)	26	% spike recovery	EPA 8082	4/1/1999	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	95	% spike recovery	EPA 8082	4/1/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991394***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/02/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-026).***

Sample ID : ***Lab Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *4/1/1999*
Sample Type : *LMB*
KAR Sample No. : *991394-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/1/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/1/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/1/1999	MSZ	
DCB (pest/PCB surr spk)	84	% spike recovery	EPA 8082	4/1/1999	MSZ	
TCMX (surr spk)	33	% spike recovery	EPA 8082	4/1/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991474***
Date Reported :	***04/07/99***
Date Activated :	***04/06/99***
Date Due :	***04/07/99***
Date Validated :	***04/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-027).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991474. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9665.

LABORATORY REPORT

KAR Project No. : ***991474***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***04/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-027).***

Sample ID : ***"WW-EFF-027"***

Sampled By : *OGN of Roy F. Weston* **Date Received :** *4/6/1999*

Sample Date : *4/6/1999* **Sample Type :** *aqueous*

Sample Time : *1200* **KAR Sample No. :** *991474-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep hg	Completed		EPA 245.2	4/6/1999	PML	
Prep metals	Completed		EPA 30xx,200.x	4/6/1999	MTM	
Cadmium, total	<5	ug/L	EPA 200.7	4/7/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/7/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	4/7/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/7/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	4/7/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	4/7/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/7/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/7/1999	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/7/1999	RJC	
PH	8.0	S.U.	EPA 150.1	4/7/1999	POH	Sample analyzed past holding time result is approximate
MDNR Scan 2	See below		EPA 8260	4/6/1999	DLB	
Prep VOA	Completed		EPA 5030	4/6/1999	DLB	
Benzene	<1	ug/L	EPA 8260	4/6/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 8260	4/6/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 8260	4/6/1999	DLB	
O-Xylene	<1	ug/L	EPA 8260	4/6/1999	DLB	
Toluene	<1	ug/L	EPA 8260	4/6/1999	DLB	
Prep ECD	Completed		EPA 3510	4/6/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/7/1999	MSZ	
12DCA-D4 (surr spk)	116	% spike recovery	EPA 8260	4/6/1999	DLB	
BFB (surr spk)	112	% spike recovery	EPA 8260	4/6/1999	DLB	
Toluene-D8 (surr spk)	91	% spike recovery	EPA 8260	4/6/1999	DLB	
DCB (pest/PCB surr spk)	16	% spike recovery	EPA 8082	4/7/1999	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	54	% spike recovery	EPA 8082	4/7/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

LABORATORY REPORT

KAR Project No. : ***991474***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-027).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/7/1999*

Sample Type : *aqueous*

KAR Sample No. : *991474-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	4/6/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	4/6/1999	MTM	
Cadmium total	<5	ug/L	EPA 200.7	4/7/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/7/1999	PML	
Copper total	<20	ug/L	EPA 200.7	4/7/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/7/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	4/7/1999	MTM	
Nickel total	<20	ug/L	EPA 200.7	4/7/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/7/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/7/1999	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/7/1999	RJC	
MDNR Scan 2	See below		EPA 8260	4/6/1999	DLB	
Prep VOA	Completed		EPA 5030	4/6/1999	DLB	
Benzene	<1	ug/L	EPA 8260	4/6/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 8260	4/6/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 8260	4/6/1999	DLB	
O-Xylene	<1	ug/L	EPA 8260	4/6/1999	DLB	
Toluene	<1	ug/L	EPA 8260	4/6/1999	DLB	
Prep ECD	Completed		EPA 3510	4/6/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/7/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/7/1999	MSZ	
12DCA-D4 (surr spk)	109	% spike recovery	EPA 8260	4/6/1999	DLB	
BFB (surr spk)	107	% spike recovery	EPA 8260	4/6/1999	DLB	
Toluene-D8 (surr spk)	88	% spike recovery	EPA 8260	4/6/1999	DLB	
DCB (pest/PCB surr spk)	76	% spike recovery	EPA 8082	4/7/1999	MSZ	
TCMX (surr spk)	17	% spike recovery	EPA 8082	4/7/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991474***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-027).***

Sample ID :	***"WW-EFF-027"***		
Sampled By :	***OGN of Roy F. Weston***	**Date Received :**	***4/6/1999***
Sample Date :	***4/6/1999***	**Sample Type :**	***aqueous***
Sample Time :	***1200***	**KAR Sample No. :**	***991474-01***

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991598***
Date Reported :	***04/13/99***
Date Activated :	***04/12/99***
Date Due :	***04/13/99***
Date Validated :	***04/13/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-028).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991598. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991596***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***04/13/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-028).***

Sample ID : ***"WW-EFF-028"***

Sampled By : ***OGN of Roy F. Weston*** **Date Received :** ***4/12/99***

Sample Date : ***4/12/99*** **Sample Type :** ***aqueous***

Sample Time : ***0900*** **KAR Sample No. :** ***991596-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	4/12/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	4/12/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	4/12/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/12/99	PML	
Copper, total	<20	ug/L	EPA 200.7	4/12/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/12/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	4/13/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	4/12/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/12/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/12/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/13/99	RJC	
PH	8.0	S.U.	EPA 150.1	4/12/99	PCH	
MDNR Scan 2	See below		EPA 624	4/12/99	DLB	
Prep VOA	Completed		EPA 624	4/12/99	DLB	
Benzene	<1	ug/L	EPA 624	4/12/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/12/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/12/99	DLB	
O-Xylene	<1	ug/L	EPA 624	4/12/99	DLB	
Toluene	<1	ug/L	EPA 624	4/12/99	DLB	
Prep ECD	Completed		EPA 3510	4/12/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/12/99	MSZ	
12DCA-D4 (surr spk)	103	% spike recovery	EPA 624	4/12/99	DLB	
BFB (surr spk)	108	% spike recovery	EPA 624	4/12/99	DLB	
Toluene-D8 (surr spk)	98	% spike recovery	EPA 624	4/12/99	DLB	
DCB (pest/PCB surr spk.	25	% spike recovery	EPA 8082	4/12/99	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk.	10	% spike recovery	EPA 8082	4/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991598***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/13/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-028).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***4/12/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991598-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	4/12/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	4/12/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	4/12/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/12/99	PML	
Copper, total	<20	ug/L	EPA 200.7	4/12/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/12/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	4/13/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	4/12/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/12/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/12/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/13/99	RJC	
MDNR Scan 2	See below		EPA 624	4/12/99	DLB	
Prep VOA	Completed		EPA 624	4/12/99	DLB	
Benzene	<1	ug/L	EPA 624	4/12/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/12/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/12/99	DLB	
O-Xylene	<1	ug/L	EPA 624	4/12/99	DLB	
Toluene	<1	ug/L	EPA 624	4/12/99	DLB	
Prep ECD	Completed		EPA 3510	4/12/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/12/99	MSZ	
12DCA-D4 (surr spk)	99	% spike recovery	EPA 624	4/12/99	DLB	
BFB (surr spk)	108	% spike recovery	EPA 624	4/12/99	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	4/12/99	DLB	
DCB (pest/PCB surr spk)	79	% spike recovery	EPA 8082	4/12/99	MSZ	
TCMX (surr spk)	39	% spike recovery	EPA 8082	4/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo Mi 49001
Phone 516 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991599***
Date Reported :	***04/12/99***
Date Activated :	***04/12/99***
Date Due :	***04/12/99***
Date Validated :	***04/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-029).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991599. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991599***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-029).***

Sample ID : ***"WW-EFF-029"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *4/12/99*
Sample Time : *0915*

Date Received : *4/12/99*
Sample Type : *aqueous*
KAR Sample No. : *991599-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/12/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/12/99	MSZ	
DCB (pest/PCB surr spk)	34	% spike recovery	EPA 8082	4/12/99	MSZ	
TCMX (surr spk)	17	% spike recovery	EPA 8082	4/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991599***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-029).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/12/99*

Sample Type : *aqueous*

KAR Sample No. : *991599-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/12/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/12/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	4/12/99	MSZ	
DCB (pest/PCB surr spk)	79	% spike recovery	EPA 8082	4/12/99	MSZ	
TCMX (surr spk)	39	% spike recovery	EPA 8082	4/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. : ***991685***
Date Reported : ***04/16/99***
Date Activated : ***04/15/99***
Date Due : ***04/16/99***
Date Validated : ***04/16/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-030).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991685. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991685***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/16/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-030).***

Sample ID : ***"WW-EFF-030"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *4/15/99*
Sample Time : *1020*

Date Received : *4/15/99*
Sample Type : *aqueous*
KAR Sample No. : *991685-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/15/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/15/99	MSZ	
DCB (pest/PCB surr spk)	17	% spike recovery	EPA 8082	4/15/99	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	6.5	% spike recovery	EPA 8082	4/15/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991685***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/16/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-030).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***4/15/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991685-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/15/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/15/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/15/99	MSZ	
DCB (pest/PCB surr spk)	76	% spike recovery	EPA 8082	4/15/99	MSZ	
TCMX (surr spk)	20	% spike recovery	EPA 8082	4/15/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991700***
Date Reported :	***04/19/99***
Date Activated :	***04/16/99***
Date Due :	***04/19/99***
Date Validated :	***04/19/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-031).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991700. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991700***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/19/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-031).***

Sample ID : ***"WW-EFF-031"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *4/16/1999*
Sample Time : *1010*

Date Received . *4/16/1999*
Sample Type : *aqueous*
KAR Sample No. : *991700-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/16/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/16/1999	MSZ	
DCB (pest/PCB surr spk)	28	% spike recovery	EPA 8082	4/16/1999	MSZ	
TCMX (surr spk)	9.2	% spike recovery	EPA 8082	4/16/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991700***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/19/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-031).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/16/1999*

Sample Type : *aqueous*

KAR Sample No. : *991700-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/16/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/16/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/16/1999	MSZ	
DCB (pest/PCB surr spk)	80	% spike recovery	EPA 8082	4/16/1999	MSZ	
TCMX (surr spk)	53	% spike recovery	EPA 8082	4/16/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 4900?
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991720***
Date Reported :	***04/20/99***
Date Activated :	***04/19/99***
Date Due :	***04/20/99***
Date Validated :	***04/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-032).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991720. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991720***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***04/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-032).***

Sample ID : ***"WW-EFF-032"***

Sampled By : *OGN of Roy F. Weston* **Date Received :** *4/19/1999*
Sample Date : *4/13/1999* **Sample Type :** *aqueous*
Sample Time : *0960* **KAR Sample No. :** *991720-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 7470	4/19/1999	DBL	
Prep metals	Completed		EPA 30xx,200.x	4/19/1999	MTM	
Cadmium, total	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Chromium, total	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Copper, total	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Lead, total, by ICP	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Mercury, total, low level	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Nickel, total	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Zinc, total	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Cyanide, total	Cancelled			4/20/1999	XXX	Analysis was cancelled by client prior to completion.
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/19/1999	RJC	
PH	7.8	S.U	EPA 150.1	4/19/1999	PDH	
MDNR Scan 2	See below		EPA 624	4/19/1999	DLB	
Prep VOA	Completed		EPA 624	4/19/1999	DLB	
Benzene	<1	ug/L	EPA 624	4/19/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/19/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/19/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	4/19/1999	DLB	
Toluene	<1	ug/L	EPA 624	4/19/1999	DLB	
Prep ECD	Completed		EPA 3510	4/19/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/20/1999	MSZ	
12DCA-D4 (surr spk)	99	% spike recovery	EPA 624	4/19/1999	DLB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991720***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-032).***

Sample ID : ***"WW-EFF-032"***

Sampled By : *OGN of Roy F. Weston*

Sample Date : *4/19/1999*

Sample Time : *0950*

Date Received : *4/19/1999*

Sample Type : *aqueous*

KAR Sample No. : *991720-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
EFB (surr spk)	*106*	*% spike recovery*	*EPA 624*	*4/19/1999*	*DLB*	
Toluene-D8 (surr spk)	*98*	*% spike recovery*	*EPA 624*	*4/19/1999*	*DLB*	
DCB (pest/PCB surr spk)	*36*	*% spike recovery*	*EPA 8082*	*4/20/1999*	*MSZ*	
TCMX (surr spk)	*14*	*% spike recovery*	*EPA 8082*	*4/20/1999*	*MSZ*	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991720***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-032).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/19/1999*

Sample Type : *aqueous*

KAR Sample No. : *991720-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/19/1999	RJC	
MDNR Scan 2	See below		EPA 624	4/19/1999	DLB	
Prep VOA	Completed		EPA 624	4/19/1999	DLB	
Benzene	<1	ug/L	EPA 624	4/19/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/19/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/19/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	4/19/1999	DLB	
Toluene	<1	ug/L	EPA 624	4/19/1999	DLB	
Prep ECD	Completed		EPA 3510	4/19/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/20/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/20/1999	MSZ	
12DCA-D4 (surr spk)	96	% spike recovery	EPA 624	4/19/1999	DLB	
BFB (surr spk)	106	% spike recovery	EPA 624	4/19/1999	DLB	
Toluene-D8 (surr spk)	96	% spike recovery	EPA 624	4/19/1999	DLB	
DCB (pest/PCB surr spk)	80	% spike recovery	EPA 8082	4/20/1999	MSZ	
TCMX (surr spk)	23	% spike recovery	EPA 8082	4/20/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991745***
Date Reported :	***04/21/99***
Date Activated :	***04/20/99***
Date Due :	***04/21/99***
Date Validated :	***04/21/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-033).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991745. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991745***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***04/21/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-033).***

Sample ID : ***"WW-EFF-033"***

Sampled By : ***NA of Roy F. Weston*** **Date Received :** ***4/20/99***

Sample Date : ***4/20/99*** **Sample Type :** ***aqueous***

Sample Time : ***1400*** **KAR Sample No. :** ***991745-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, hg	Completed		EPA 245.2	4/21/99	MTM	
Prep, metals	Completed		EPA 30xx,200.x	4/21/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	4/21/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/21/99	PML	
Copper, total	<20	ug/L	EPA 200.7	4/21/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/21/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	4/21/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	4/21/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/21/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/21/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/21/99	RJC	
PH	7.8	S.U	EPA 150.1	4/20/99	PCH	
MDNR Scan 2	See below		EPA 624	4/21/99	DLB	
Prep, VOA	Completed		EPA 624	4/21/99	DLB	
Benzene	<1	ug/L	EPA 624	4/21/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/21/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/21/99	DLB	
O-Xylene	<1	ug/L	EPA 624	4/21/99	DLB	
Toluene	<1	ug/L	EPA 624	4/21/99	DLB	
Prep, ECD	Completed		EPA 3510	4/21/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/21/99	MSZ	
12DCA-D4 (surr spk)	94	% spike recovery	EPA 624	4/21/99	DLB	
BFB (surr spk)	104	% spike recovery	EPA 624	4/21/99	DLB	
Toluene-D8 (surr spk)	95	% spike recovery	EPA 624	4/21/99	DLB	
DCB (pest/PCB surr spk)	27	% spike recovery	EPA 8082	4/21/99	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	18	% spike recovery	EPA 8082	4/21/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991745***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/21/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-033).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***4/20/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991745-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	4/21/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	4/21/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	4/21/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/21/99	PML	
Copper, total	<20	ug/L	EPA 200.7	4/21/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/21/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	4/21/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	4/21/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/21/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/21/99	VAS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/21/99	RJC	
MDNR Scan 2	See below		EPA 624	4/21/99	DLB	
Prep VOA	Completed		EPA 624	4/21/99	DLB	
Benzene	<1	ug/L	EPA 624	4/21/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/21/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/21/99	DLB	
O-Xylene	<1	ug/L	EPA 624	4/21/99	DLB	
Toluene	<1	ug/L	EPA 624	4/21/99	DLB	
Prep ECD	Completed		EPA 3510	4/21/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/21/99	MSZ	
12DCA-D4 (surr spk)	92	% spike recovery	EPA 624	4/21/99	DLB	
EFB (surr spk)	105	% spike recovery	EPA 624	4/21/99	DLB	
Toluene-D8 (surr spk)	96	% spike recovery	EPA 624	4/21/99	DLB	
DCB (pest/PCB surr spk)	67	% spike recovery	EPA 8082	4/21/99	MSZ	
TCMX (surr spk)	39	% spike recovery	EPA 8082	4/21/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991753***
Date Reported :	***04/21/99***
Date Activated :	***04/20/99***
Date Due :	***04/21/99***
Date Validated :	***04/21/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (SC-01).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991753. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *991753*

Client: *Roy F. Weston, Inc.*

Date Reported : *04/21/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (SC-01).***

Sample ID : *"SC-01"*

Sampled By : *NA of Roy F. Weston*
Sample Date : *4/20/99*
Sample Time : *1415*

Date Received : *4/20/99*
Sample Type : *aqueous*
KAR Sample No. : *991753-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Complete		EPA 3510	4/21/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/21/99	MSZ	
DCB (pest/PCB surr spk)	32	% spike recovery	EPA 8082	4/21/99	MSZ	
TCMX (surr spk)	15	% spike recovery	EPA 8082	4/21/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *991753*

Client: ***Roy F. Weston, Inc.***

Date Reported : *04/21/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (SC-01).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/20/99*

Sample Type : *aqueous*

KAR Sample No. : *991753-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/21/99	SAS	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	4/21/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	4/21/99	MSZ	
DCB (pest/PCB surr spk)	67	% spike recovery	EPA 8082	4/21/99	MSZ	
TCMX (surr spk)	39	% spike recovery	EPA 8082	4/21/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991783***
Date Reported :	***04/22/99***
Date Activated :	***04/22/99***
Date Due :	***04/22/99***
Date Validated :	***04/22/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-034).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991783. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991783***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/22/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-034).***

Sample ID : ***"WW-EFF-034"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *4/22/1999*
Sample Time : *0905*

Date Received : *4/22/1999*
Sample Type : *aqueous*
KAR Sample No. : *991783-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/22/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/22/1999	MSZ	
DCB (pest/PCB surr spk)	43	% spike recovery	EPA 8082	4/22/1999	MSZ	
TCMX (surr spk)	20	% spike recovery	EPA 8082	4/22/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991783***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/22/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-034).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/22/1999*

Sample Type : *aqueous*

KAR Sample No. : *991783-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/22/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/22/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/22/1999	MSZ	
DCB (pest/PCB surr spk)	92	% spike recovery	EPA 8082	4/22/1999	MSZ	
TCMX (surr spk)	49	% spike recovery	EPA 8082	4/22/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991839***
Date Reported :	***04/26/99***
Date Activated :	***04/23/99***
Date Due :	***04/26/99***
Date Validated :	***04/26/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-035).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991839. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991839***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/26/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-035).***

Sample ID : ***"WW-EFF-035"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *4/23/1999*
Sample Time : *1600*

Date Received : *4/23/1999*
Sample Type : *aqueous*
KAR Sample No. : *991839-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/23/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/23/1999	MSZ	
DCB (pest/PCB surr spk)	24	% spike recovery	EPA 8082	4/23/1999	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	8.5	% spike recovery	EPA 8082	4/23/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991839***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/26/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-035).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/23/1999*

Sample Type : *aqueous*

KAR Sample No. : *991839-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/23/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/23/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/23/1999	MSZ	
DCB (pest/PCB surr spk)	61	% spike recovery	EPA 8082	4/23/1999	MSZ	
TCMX (surr spk)	31	% spike recovery	EPA 8082	4/23/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991866***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-036).***

Sample ID : ***"WW-EFF-036"***

Sampled By : ***NA of Roy F. Weston***

Sample Date : ***4/26/99***

Sample Time : ***0830***

Date Received : ***4/26/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991866-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	4/26/99	PML	
Prep metals	Completed		EPA 30xx,200.x	4/26/99	MTM	
Cadmium, total	<5	ug/L	EPA 200.7	4/26/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/26/99	PML	
Copper, total	<20	ug/L	EPA 200.7	4/26/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/26/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	4/27/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	4/26/99	PML	
Zinc, total	20	ug/L	EPA 200.7	4/26/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/27/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/26/99	RJC	
pH	7.7	S.U.	EPA 150.1	4/26/99	JMS	
MDNR Scan 2	See below		EPA 624	4/26/99	DLB	
Prep VOA	Completed		EPA 624	4/26/99	DLB	
Benzene	<1	ug/L	EPA 624	4/26/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/26/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/26/99	DLB	
O-Xylene	<1	ug/L	EPA 624	4/26/99	DLB	
Toluene	<1	ug/L	EPA 624	4/26/99	DLB	
Prep ECD	Completed		EPA 3510	4/26/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/27/99	MSZ	
12DCA-D4 (surr spk)	93	% spike recovery	EPA 624	4/26/99	DLB	
BFB (surr spk)	102	% spike recovery	EPA 624	4/26/99	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	4/26/99	DLB	
DCB (pest/PCB surr spk)	30	% spike recovery	EPA 8082	4/27/99	MSZ	
TCMX (surr spk)	11	% spike recovery	EPA 8082	4/27/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991866***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-036).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***4/26/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991866-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	4/26/99	PML	
Prep, metals	Completed		EPA 30xx,200.x	4/26/99	MTM	
Cadmium, total	<5	ug/L	EPA 200.7	4/26/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	4/26/99	PML	
Copper, total	<20	ug/L	EPA 200.7	4/26/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	4/26/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	4/27/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	4/26/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	4/26/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	4/27/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	4/26/99	RJC	
VOA Scan 2	See below		EPA 624	4/26/99	DLB	
Prep, VOA	Completed		EPA 624	4/26/99	DLB	
Benzene	<1	ug/L	EPA 624	4/26/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	4/26/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	4/26/99	DLB	
O-Xylene	<1	ug/L	EPA 624	4/26/99	DLB	
Toluene	<1	ug/L	EPA 624	4/26/99	DLB	
Prep, ECD	Completed		EPA 3510	4/26/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/27/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/27/99	MSZ	
12DCA-D4 (surr spk)	92	% spike recovery	EPA 624	4/26/99	DLB	
EFB (surr spk)	100	% spike recovery	EPA 624	4/26/99	DLB	
Toluene-D8 (surr spk)	96	% spike recovery	EPA 624	4/26/99	DLB	
DCB (pest/PCB surr spk)	79	% spike recovery	EPA 8082	4/27/99	MSZ	
TCMX (surr spk)	33	% spike recovery	EPA 8082	4/27/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991893***
Date Reported :	***04/28/99***
Date Activated :	***04/27/99***
Date Due :	***04/28/99***
Date Validated :	***04/28/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037,038).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991893. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991893***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/28/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037,038).***

Sample ID : ***"WW-EFF-037"***

Sampled By : *TL of Roy F. Weston*
Sample Date : *4/27/1999*
Sample Time : *0840*

Date Received : *4/27/1999*
Sample Type : *aqueous*
KAR Sample No. : *991893-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/27/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1242	0.4	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclors, total	0.4	ug/L	EPA 8082	4/28/1999	MSZ	
DCB (pest/PCB surr spk)	41	% spike recovery	EPA 8082	4/28/1999	MSZ	
TCMX (surr spk)	26	% spike recovery	EPA 8082	4/28/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991893***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/28/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037,038).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/27/1999*

Sample Type : *aqueous*

KAR Sample No. : *991893-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep_ECD	Completed		EPA 3510	4/27/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Arocolors, total	NA		EPA 8082	4/28/1999	MSZ	
DCB (pest/PCB surr spk)	83	% spike recovery	EPA 8082	4/28/1999	MSZ	
TCMX (surr spk)	29	% spike recovery	EPA 8082	4/28/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991893***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/28/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037,038).***

Sample ID : ***"WW-EFF-038"***

Sampled By : *TL of Roy F. Weston*
Sample Date : *4/27/1999*
Sample Time : *0860*

Date Received : *4/27/1999*
Sample Type : *aqueous*
KAR Sample No. : *991893-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	4/27/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/28/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/28/1999	MSZ	
DCB (pest/PCB surr spk)	31	% spike recovery	EPA 8082	4/28/1999	MSZ	
TCMX (surr spk)	15	% spike recovery	EPA 8082	4/28/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***991961***
Date Reported :	***04/30/99***
Date Activated :	***04/29/99***
Date Due :	***04/30/99***
Date Validated :	***04/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-039).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991961. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991961***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***04/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-039).***

Sample ID : ***"WW-EFF-039"***

Sampled By : *TRL of Roy F. Weston* **Date Received :** *4/29/99*
Sample Date : *4/29/99* **Sample Type :** *aqueous*
Sample Time : *1550* **KAR Sample No. :** *991961-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep_SCD	Complete		EPA 3510	4/30/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Arcolors, total	NA		EPA 8082	4/30/99	MSZ	
DCB (pest/PCB surr spk)	52	% spike recovery	EPA 8082	4/30/99	MSZ	
TCMX (surr spk)	21	% spike recovery	EPA 8082	4/30/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991961***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-039).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/26/99*

Sample Type : *aqueous*

KAR Sample No. : *991961-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	4/30/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/30/99	MSZ	
DCB (pest/PCB surr spk)	96	% spike recovery	EPA 8082	4/30/99	MSZ	
TCMX (surr spk)	35	% spike recovery	EPA 8082	4/30/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991963***
Date Reported :	***04/30/99***
Date Activated :	***04/30/99***
Date Due :	***04/30/99***
Date Validated :	***04/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-040).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991963. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991963***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***04/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-040).***

Sample ID : ***"WW-EFF-040"***

Sampled By : ***TRL of Roy F. Weston***
Sample Date : ***4/30/99***
Sample Time : ***0750***

Date Received : ***4/30/99***
Sample Type : ***aqueous***
KAR Sample No. : ***991963-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep SCD	Completed		EPA 3510	4/30/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Arcolors, total	NA		EPA 8082	4/30/99	MSZ	
DCB (pest/PCB surr spk)	48	% spike recovery	EPA 8082	4/30/99	MSZ	
TCMX (surr spk)	18	% spike recovery	EPA 8082	4/30/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : *991963*

Client: *Roy F. Weston, Inc.*

Date Reported : *04/30/99*

Project Description : *Analysis of one sample from Kalamazoo River Superfund (WW-EFF-040).*

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *4/30/99*

Sample Type : *aqueous*

KAR Sample No. : *991963-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep. ECD	Completed		EPA 3510	4/30/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/30/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	4/30/99	MSZ	
DCB (pest/PCB surr spk)	96	% spike recovery	EPA 8082	4/30/99	MSZ	
TCMX (surr spk)	35	% spike recovery	EPA 8082	4/30/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991986***
Date Reported :	***05/03/99***
Date Activated :	***05/03/99***
Date Due :	***05/03/99***
Date Validated :	***05/03/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037A,041).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991986. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991986***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/03/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037A, 041).***

Sample ID : ***"WW-EFF-037-A"***

Sampled By : ***TRL of Roy F. Weston*** **Date Received :** ***5/3/99***

Sample Date : ***5/3/99*** **Sample Type :** ***aqueous***

Sample Time : ***0745*** **KAR Sample No. :** ***991986-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/3/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1242	0.2	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclors, total	0.2	ug/L	EPA 8082	5/3/99	MSZ	
DCB (pest/PCB surr spk)	46	% spike recovery	EPA 8082	5/3/99	MSZ	
TCMX (surr spk)	16	% spike recovery	EPA 8082	5/3/99	MSZ	

M

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991986***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/03/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037A, 041).***

Sample ID : ***"WW-EFF-041"***

Sampled By : ***TRL of Roy F. Weston***

Sample Date : ***5/3/99***

Sample Time : ***0730***

Date Received : ***5/3/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991986-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/3/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	5/3/99	MSZ	
DCB (pest/PCB surr spk)	47	% spike recovery	EPA 8082	5/3/99	MSZ	
TCMX (surr spk)	21	% spike recovery	EPA 8082	5/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991986***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/03/99***

Project Description : ***Analysis of samples from Kalamazoo River Superfund (WW-EFF-037A, 041).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/3/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991986-03***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/3/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/3/99	MSZ	
DCB (pest/PCB surr spk)	87	% spike recovery	EPA 8082	5/3/99	MSZ	
TCMX (surr spk)	54	% spike recovery	EPA 8082	5/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. : ***991988***
Date Reported : ***05/04/99***
Date Activated : ***05/03/99***
Date Due : ***05/04/99***
Date Validated : ***05/04/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-042).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991988. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991988***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/04/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-042).***

Sample ID : ***"WW-EFF-042"***

Sampled By :

Sample Date : ***5/3/99***

Sample Time : ***0900***

Date Received : ***5/3/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991988-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	5/3/99	MTM	
Prep, metals	Completed		EPA 30xx,200.x	5/3/99	MTM	
Cadmium, total	<5	ug/L	EPA 200.7	5/3/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/3/99	PML	
Copper, total	<20	ug/L	EPA 200.7	5/3/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/3/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	5/4/99	DBL	
Nickel, total	<20	ug/L	EPA 200.7	5/3/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	5/3/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/3/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/4/99	DRA	
PH	7.8	S.U	EPA 150.1	5/3/99	JMS	
MDNR Scan 2	See below		EPA 624	5/3/99	DLB	
Prep, VOA	Completed		EPA 624	5/3/99	DLB	
Benzene	<1	ug/L	EPA 624	5/3/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/3/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/3/99	DLB	
O-Xylene	<1	ug/L	EPA 624	5/3/99	DLB	
Toluene	<1	ug/L	EPA 624	5/3/99	DLB	
Prep, ECD	Completed		EPA 3510	5/3/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/3/99	MSZ	
12DCA-D4 (surr spk)	103	% spike recovery	EPA 624	5/3/99	DLB	
BFB (surr spk)	105	% spike recovery	EPA 624	5/3/99	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	5/3/99	DLB	
DCB (pest/PCB surr spk)	33	% spike recovery	EPA 8082	5/3/99	MSZ	
TCMX (surr spk)	12	% spike recovery	EPA 8082	5/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991988***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/04/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-042).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/3/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991988-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	5/3/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	5/3/99	MTM	
Cadmium total	<5	ug/L	EPA 200.7	5/3/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/3/99	PML	
Copper total	<20	ug/L	EPA 200.7	5/3/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/3/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 7470A	5/4/99	DBL	
Nickel, total	<20	ug/L	EPA 200.7	5/3/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	5/3/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/3/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/4/99	DRA	
MDNR Scan 2	See below		EPA 624	5/3/99	DLB	
Prep VOA	Completed		EPA 624	5/3/99	DLB	
Benzene	<1	ug/L	EPA 624	5/3/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/3/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/3/99	DLB	
O-Xylene	<1	ug/L	EPA 624	5/3/99	DLB	
Toluene	<1	ug/L	EPA 624	5/3/99	DLB	
Prep ECD	Completed		EPA 3510	5/3/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/3/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/3/99	MSZ	
12DCA-D4 (surr spk)	101	% spike recovery	EPA 624	5/3/99	DLB	
BFB (surr spk)	110	% spike recovery	EPA 624	5/3/99	DLB	
Toluene-D8 (surr spk)	99	% spike recovery	EPA 624	5/3/99	DLB	
DCB (pest/PCB surr spk)	87	% spike recovery	EPA 8082	5/3/99	MSZ	
TCMX (surr spk)	54	% spike recovery	EPA 8082	5/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992083***
Date Reported :	***05/06/99***
Date Activated :	***05/05/99***
Date Due :	***05/06/99***
Date Validated :	***05/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-037B).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992083. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992083***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-037B).***

Sample ID : ***"WW-EFF-037-B"***

Sampled By : ***NA of Roy F. Weston***

Sample Date : ***5/5/99***

Sample Time : ***1545***

Date Received : ***5/5/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992083-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/6/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1242	0.2	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclors, total	0.2	ug/L	EPA 8082	5/6/99	MSZ	
DCB (pest/PCB surr spk)	53	% spike recovery	EPA 8082	5/6/99	MSZ	
TCMX (surr spk)	35	% spike recovery	EPA 8082	5/6/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***992083***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-037B).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/5/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992083-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/6/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/6/99	MSZ	
DCB (pest/PCB surr spk)	90	% spike recovery	EPA 8082	5/6/99	MSZ	
TCMX (surr spk)	60	% spike recovery	EPA 8082	5/6/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. : ***992045***
Date Reported : ***05/06/99***
Date Activated : ***05/05/99***
Date Due : ***05/06/99***
Date Validated : ***05/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-043).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992045. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992045***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-043).***

Sample ID : ***"WW-EFF-043"***

Sampled By : ***NA of Roy F. Weston***

Sample Date : ***5/5/99***

Sample Time : ***0800***

Date Received : ***5/5/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992045-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/5/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/6/99	MSZ	
DCB (pest/PCB surr spk)	26	% spike recovery	EPA 8082	5/6/99	MSZ	Low surrogate recovery due to apparent matrix effect
TCMX (surr spk)	4.8	% spike recovery	EPA 8082	5/6/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***992045***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-043).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/5/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992045-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/5/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/6/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	5/6/99	MSZ	
DCB (pest/PCB surr spk)	65	% spike recovery	EPA 8082	5/6/99	MSZ	
TCMX (surr spk)	32	% spike recovery	EPA 8082	5/6/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***992132***
Date Reported :	***05/07/99***
Date Activated :	***05/07/99***
Date Due :	***05/07/99***
Date Validated :	***05/07/99***

Project Description : ***Analysis of two samples from Kalamazoo Superfund (WW-EFF-044,-045).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992132. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and telephone us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992132***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/07/99***

Project Description : ***Analysis of two samples from Kalamazoo Superfund (WW-EFF-044,-045).***

Sample ID : ***"WW-EFF-045"***

Sampled By : *NA of Roy F. Weston*
Sample Date : *6/7/1999*
Sample Time : *0815*

Date Received : *6/7/1999*
Sample Type : *aqueous*
KAR Sample No. : *992132-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	6/7/1999	MLY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	6/7/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	6/7/1999	MSZ	
DCB (pest/PCB surr spk)	76	% spike recovery	EPA 8082	6/7/1999	MSZ	
TCMX (surr spk)	45	% spike recovery	EPA 8082	6/7/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992132***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/07/99***

Project Description : ***Analysis of two samples from Kalamazoo Superfund (WW-EFF-044,-045).***

Sample ID : ***"WW-EFF-044"***

Sampled By : *NA of Roy F. Weston*
Sample Date : *5/7/1999*
Sample Time : *0800*

Date Received : *5/7/1999*
Sample Type : *aqueous*
KAR Sample No. : *992132-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/7/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/7/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/7/1999	MSZ	
DCB (pest/PCB surr spk)	67	% spike recovery	EPA 8082	5/7/1999	MSZ	
TCMX (surr spk)	27	% spike recovery	EPA 8082	5/7/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***992162***
Date Reported :	***05/11/99***
Date Activated :	***05/10/99***
Date Due :	***05/11/99***
Date Validated :	***05/11/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-046).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992162. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992162***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/11/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-046).***

Sample ID : ***"WW-EFF-046"***

Sampled By : *TRL of Roy F. Weston* **Date Received :** *5/10/1999*

Sample Date : *5/10/1999* **Sample Type :** *aqueous*

Sample Time : *0825* **KAR Sample No. :** *992162-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/10/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/10/1999	MSZ	
DCB (pest/PCB surr spk)	71	% spike recovery	EPA 8082	5/10/1999	MSZ	
TCMX (surr spk)	36	% spike recovery	EPA 8082	5/10/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***992162***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/11/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-046).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *5/10/1999*
Sample Type : *aqueous*
KAR Sample No. : *992152-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/10/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/10/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/10/1999	MSZ	
DCB (pest/PCB surr spk)	85	% spike recovery	EPA 8082	5/10/1999	MSZ	
TCMX (surr spk)	47	% spike recovery	EPA 8082	5/10/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992170***
Date Reported :	***05/11/99***
Date Activated :	***05/10/99***
Date Due :	***05/11/99***
Date Validated :	***05/11/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-047).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992170. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992170***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/11/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-047).***

Sample ID : ***"WW-EFF-047"***

Sampled By : ***NA of Roy F. Weston***

Sample Date : ***5/10/99***

Sample Time : ***1600***

Date Received : ***5/10/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992170-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	5/10/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	5/11/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	5/11/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/11/99	PML	
Copper, total	<20	ug/L	EPA 200.7	5/11/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/11/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	5/11/99	MTM	
Nickel, total	<20	ug/L	EPA 200.7	5/11/99	PML	
Zinc, total	20	ug/L	EPA 200.7	5/11/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/11/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/11/99	DRA	
pH	7.8	S.U.	EPA 150.1	5/10/99	JMS	
MDNR Scan 2	See below		EPA 624	5/11/99	DLB	
Prep VOA	Completed		EPA 624	5/11/99	DLB	
Benzene	<1	ug/L	EPA 624	5/11/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/11/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/11/99	DLB	
O-Xylene	<1	ug/L	EPA 624	5/11/99	DLB	
Toluene	<1	ug/L	EPA 624	5/11/99	DLB	
Prep ECD	Completed		EPA 3510	5/11/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/11/99	MSZ	
12DCA-D4 (surr spk)	102	% spike recovery	EPA 624	5/11/99	DLB	
BFB (surr spk)	106	% spike recovery	EPA 624	5/11/99	DLB	
Toluene-D8 (surr spk)	100	% spike recovery	EPA 624	5/11/99	DLB	
DCB (pest/PCB surr spk)	71	% spike recovery	EPA 8082	5/11/99	MSZ	
TCMX (surr spk)	94	% spike recovery	EPA 8082	5/11/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992170***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/11/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-047).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/10/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992170-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	5/10/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	5/11/99	PML	
Cadmium, total	<5	ug/L	EPA 200.7	5/11/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/11/99	PML	
Copper, total	<20	ug/L	EPA 200.7	5/11/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/11/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 200.7	5/11/99	PML	
Nickel, total	<20	ug/L	EPA 200.7	5/11/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	5/11/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/11/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/11/99	DRA	
MDNR Scan 2	See below		EPA 624	5/11/99	DLB	
Prep VOA	Completed		EPA 624	5/11/99	DLB	
Benzene	<1	ug/L	EPA 624	5/11/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/11/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/11/99	DLB	
O-Xylene	<1	ug/L	EPA 624	5/11/99	DLB	
Toluene	<1	ug/L	EPA 624	5/11/99	DLB	
Prep ECD	Completed		EPA 3510	5/11/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/11/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/11/99	MSZ	
12DCA-D4 (surr spk)	106	% spike recovery	EPA 624	5/11/99	DLB	
EFB (surr spk)	107	% spike recovery	EPA 624	5/11/99	DLB	
Toluene-D8 (surr spk)	101	% spike recovery	EPA 624	5/11/99	DLB	
DCB (pest/PCB surr spk)	91	% spike recovery	EPA 8082	5/11/99	MSZ	
TCMX (surr spk)	27	% spike recovery	EPA 8082	5/11/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992178***
Date Reported :	***05/12/99***
Date Activated :	***05/11/99***
Date Due :	***05/12/99***
Date Validated :	***05/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-037-C).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992178. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992178***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-037-C).***

Sample ID : ***"WW-EFF-037-C"***

Sampled By : ***NA of Roy F. Weston***
Sample Date : ***5/11/99***
Sample Time : ***1200***

Date Received : ***5/11/99***
Sample Type : ***aqueous***
KAR Sample No. : ***992178-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/11/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/12/99	MSZ	
DCB (pest/PCB surr spk)	35	% spike recovery	EPA 8082	5/12/99	MSZ	
TCMX (surr spk)	17	% spike recovery	EPA 8082	5/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *992178*

Client: ***Roy F. Weston, Inc.***

Date Reported : *05/12/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-037-C).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *5/11/99*

Sample Type : *aqueous*

KAR Sample No. : *992178-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/11/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/12/99	MSZ	
DCB (pest/PCB surr spk)	94	% spike recovery	EPA 8082	5/12/99	MSZ	
TCMX (surr spk)	28	% spike recovery	EPA 8082	5/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9656
Fax 616 381-9658

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. : ***992248***
Date Reported : ***05/14/99***
Date Activated : ***05/14/99***
Date Due : ***05/14/99***
Date Validated : ***05/14/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-048).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992248. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992248***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/14/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-048).***

Sample ID : ***"WW-EFF-048"***

Sampled By : ***NA of Roy F. Weston*** **Date Received :** ***5/14/99***

Sample Date : ***5/14/99*** **Sample Type :** ***aqueous***

Sample Time : ***0730*** **KAR Sample No. :** ***992248-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 35*0	5/14/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Aroclor 1221	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Aroclor 1232	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Aroclor 1242	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Aroclor 1248	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Aroclor 1254	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Aroclor 1260	<0.1	ug/L	EPA 35*0	5/14/99	GMB	
PCB Arcclors, total	NA		EPA 35*0	5/14/99	GMB	
DCB (pest/PCB surr spk)	69	% spike recovery	EPA 35*0	5/14/99	GMB	
TCMX (surr spk)	39	% spike recovery	EPA 35*0	5/14/99	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992248***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/14/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-048).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/14/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992248-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/14/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Aroclor 1221	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Aroclor 1232	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Aroclor 1242	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Aroclor 1248	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Aroclor 1254	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Aroclor 1260	<0.1	ug/L	EPA 3510	5/14/99	GMB	
PCB Arcclors, total	NA		EPA 3510	5/14/99	GMB	
DCB (pest/PCB surr spk)	85	% spike recovery	EPA 3510	5/14/99	GMB	
TCMX (surr spk)	41	% spike recovery	EPA 3510	5/14/99	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***992274***
Date Reported :	***05/18/99***
Date Activated :	***05/17/99***
Date Due :	***05/18/99***
Date Validated :	***05/18/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-049).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992274. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992274***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/18/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-049).***

Sample ID : ***"WW-EFF-049"***

Sampled By : *NA of Roy F. Weston* **Date Received :** *5/17/1999*

Sample Date : *5/17/1999* **Sample Type :** *aqueous*

Sample Time : *0730* **KAR Sample No. :** *992274-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	5/17/1999	MTM	
Prep, metals	Completed		EPA 30xx,200.x	5/17/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	5/17/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/17/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	5/17/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/17/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	5/18/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	5/17/1999	PML	
Zinc, total	10	ug/L	EPA 200.7	5/17/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/17/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/17/1999	DRA	
PH	7.8	S.U	EPA 150.1	5/17/1999	JMS	
MDNR Scan 2	See below		EPA 624	5/17/1999	DLB	
Prep, VOA	Completed		EPA 624	5/17/1999	DLB	
Benzene	<1	ug/L	EPA 624	5/17/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/17/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/17/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	5/17/1999	DLB	
Toluene	<1	ug/L	EPA 624	5/17/1999	DLB	
Prep, ECD	Completed		EPA 3510	5/17/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/18/1999	MSZ	
12DCA-D4 (surr spk)	103	% spike recovery	EPA 624	5/17/1999	DLB	
BFB (surr spk)	108	% spike recovery	EPA 624	5/17/1999	DLB	
Toluene-D8 (surr spk)	103	% spike recovery	EPA 624	5/17/1999	DLB	
DCB (pest/PCB surr spk)	47	% spike recovery	EPA 8082	5/18/1999	MSZ	
TCMX (surr spk)	11	% spike recovery	EPA 8082	5/18/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***992274***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/18/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-049).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *5/17/1999*

Sample Type : *aqueous*

KAR Sample No. : *992274-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	5/17/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	5/17/1999	PML	
Cadmium total	<5	ug/L	EPA 200.7	5/17/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/17/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	5/17/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/17/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	5/18/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	5/17/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	5/17/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/17/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/17/1999	DRA	
MDNR Scan 2	See below		EPA 624	5/17/1999	DLB	
Prep VOA	Completed		EPA 624	5/17/1999	DLB	
Benzene	<1	ug/L	EPA 624	5/17/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/17/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/17/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	5/17/1999	DLB	
Toluene	<1	ug/L	EPA 624	5/17/1999	DLB	
Prep ECD	Completed		EPA 3510	5/17/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/18/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/18/1999	MSZ	
12DCA-D4 (surr spk)	102	% spike recovery	EPA 624	5/17/1999	DLB	
BFB (surr spk)	106	% spike recovery	EPA 624	5/17/1999	DLB	
Toluene-D8 (surr spk)	100	% spike recovery	EPA 624	5/17/1999	DLB	
DCB (pest/PCB surr spk)	91	% spike recovery	EPA 8082	5/18/1999	MSZ	
TCMX (surr spk)	32	% spike recovery	EPA 8082	5/18/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992345***
Date Reported :	***05/20/99***
Date Activated :	***05/19/99***
Date Due :	***05/20/99***
Date Validated :	***05/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-050).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992345. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992345***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-050).***

Sample ID : ***"WW-EFF-050"***

Sampled By : ***NA of Roy F. Weston, Inc.*** **Date Received :** ***5/19/99***

Sample Date : ***5/19/99*** **Sample Type :** ***aqueous***

Sample Time : ***1530*** **KAR Sample No. :** ***992345-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/20/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/20/99	MSZ	
DCB (pest/PCB surr spk)	75	% spike recovery	EPA 8082	5/20/99	MSZ	
TCMX (surr spk)	45	% spike recovery	EPA 8082	5/20/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992345***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-050).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/19/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992345-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/20/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/20/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/20/99	MSZ	
DCB (pest/PCB surr spk)	98	% spike recovery	EPA 8082	5/20/99	MSZ	
TCMX (surr spk)	31	% spike recovery	EPA 8082	5/20/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***992388***
Date Reported :	***05/24/99***
Date Activated :	***05/21/99***
Date Due :	***05/24/99***
Date Validated :	***05/24/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-051).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992388. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992388***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/24/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-051).***

Sample ID : ***"WW-EFF-051"***

Sampled By : *NA of Roy F. Weston* **Date Received :** *5/21/1999*

Sample Date : *5/21/1999* **Sample Type :** *aqueous*

Sample Time : *1545* **KAR Sample No. :** *992388-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/24/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Arcclors, total	NA		EPA 8082	5/24/1999	KTL	
DCB (best/PCB surr spk)	76	% spike recovery	EPA 8082	5/24/1999	KTL	
TCMX (surr spk)	40	% spike recovery	EPA 8082	5/24/1999	KTL	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***992388***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/24/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-051).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *5/21/1999*

Sample Type : *aqueous*

KAR Sample No. : *992388-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/24/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/24/1999	KTL	
PCB Aroclors, total	NA		EPA 8082	5/24/1999	KTL	
DCB (pest/PCB surr spk)	90	% spike recovery	EPA 8082	5/24/1999	KTL	
TCMX (surr spk)	28	% spike recovery	EPA 8082	5/24/1999	KTL	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992405***
Date Reported :	***05/25/99***
Date Activated :	***05/24/99***
Date Due :	***05/25/99***
Date Validated :	***05/25/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-052).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992405. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992405***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/25/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-052).***

Sample ID : ***"WW-EFF-052"***

Sampled By : ***NA of Roy F. Weston***

Sample Date : ***5/24/99***

Sample Time : ***1600***

Date Received : ***5/24/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992405-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	5/25/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	5/25/99	MTM	
Cadmium, total	<5 ✓	ug/L	EPA 200.7	5/25/99	PML	
Chromium, total	<10 ✓	ug/L	EPA 200.7	5/25/99	PML	
Copper, total	<20 ✓	ug/L	EPA 200.7	5/25/99	PML	
Lead, total, by ICP	<50 ✓	ug/L	EPA 200.7	5/25/99	PML	
Mercury, total, low level	<0.2 ✓	ug/L	EPA 245.2	5/25/99	MTM	
Nickel, total	<20 ✓	ug/L	EPA 200.7	5/25/99	PML	
Zinc, total	<10 ✓	ug/L	EPA 200.7	5/25/99	PML	
Cyanide, total	<5 ✓	ug/L	EPA 335.2	5/25/99	JMS	
Gravimetric TPH (SGT-HEM)	<5 ✓	mg/L	EPA 1664	5/25/99	MCB	
PH	8.0 ✓	S.U	EPA 150.1	5/24/99	JMS	
MDNR Scan 2	See below		EPA 624	5/25/99	DLB	
Prep VOA	Completed		EPA 624	5/25/99	DLB	
Benzene	<1 ✓	ug/L	EPA 624	5/25/99	DLB	
Ethylbenzene	<1 ✓	ug/L	EPA 624	5/25/99	DLB	
M-and/or p-xylene	<1 ✓	ug/L	EPA 624	5/25/99	DLB	
O-Xylene	<1 ✓	ug/L	EPA 624	5/25/99	DLB	
Toluene	<1 ✓	ug/L	EPA 624	5/25/99	DLB	
Prep ECD	Completed		EPA 3510	5/25/99	MJY	
PCB Aroclor 1016	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1221	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1232	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1242	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1248	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1254	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1260	<0.1 ✓	ug/L	EPA 8082	5/25/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	5/25/99	MSZ	
12DCA-D4 (surr spk)	111	% spike recovery	EPA 624	5/25/99	DLB	
BFB (surr spk)	116	% spike recovery	EPA 624	5/25/99	DLB	
Toluene-D8 (surr spk)	95	% spike recovery	EPA 624	5/25/99	DLB	
DCB (pest/PCB surr spk)	53	% spike recovery	EPA 8082	5/25/99	MSZ	
TCMX (surr spk)	21	% spike recovery	EPA 8082	5/25/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***992405***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/25/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-052).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***5/24/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992405-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	5/25/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	5/25/99	MTM	
Cadmium, total	<5	ug/L	EPA 200.7	5/25/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	5/25/99	PML	
Copper, total	<20	ug/L	EPA 200.7	5/25/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	5/25/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	5/25/99	MTM	
Nickel, total	<20	ug/L	EPA 200.7	5/25/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	5/25/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	5/25/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	5/25/99	MCB	
MDNR Scan 2	See below		EPA 624	5/25/99	DLB	
Prep VOA	Completed		EPA 624	5/25/99	DLB	
Benzene	<1	ug/L	EPA 624	5/25/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	5/25/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	5/25/99	DLB	
O-Xylene	<1	ug/L	EPA 624	5/25/99	DLB	
Toluene	<1	ug/L	EPA 624	5/25/99	DLB	
Prep ECD	Completed		EPA 3510	5/25/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/25/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/25/99	MSZ	
12DCA-D4 (surr spk)	122	% spike recovery	EPA 624	5/25/99	DLB	
BFB (surr spk)	97	% spike recovery	EPA 624	5/25/99	DLB	
Toluene-D8 (surr spk)	115	% spike recovery	EPA 624	5/25/99	DLB	
DCB (pest/PCB surr spk)	79	% spike recovery	EPA 8082	5/25/99	MSZ	
TCMX (surr spk)	27	% spike recovery	EPA 8082	5/25/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. : ***992464***
Date Reported : ***05/28/99***
Date Activated : ***05/27/99***
Date Due : ***05/28/99***
Date Validated : ***05/28/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-053).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992464. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992464***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/28/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-053).***

Sample ID : ***"WW-EFF-053"***

Sampled By : ***NA of Roy F. Weston***
Sample Date : ***5/27/99***
Sample Time : ***1130***

Date Received : ***5/27/99***
Sample Type : ***aqueous***
KAR Sample No. : ***992464-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/27/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/28/99	MSZ	
DCB (pest/PCB surr spk)	53	% spike recovery	EPA 8082	5/28/99	MSZ	
TCMX (surr spk)	25	% spike recovery	EPA 8082	5/28/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992464***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***05/28/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-053).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***5/27/99***
Sample Type : ***aqueous***
KAR Sample No. : ***992464-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	5/27/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/28/99	MSZ	
DCB (pest/PCB surr spk)	84	% spike recovery	EPA 8082	5/28/99	MSZ	
TCMX (surr spk)	42	% spike recovery	EPA 8082	5/28/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992486***
Date Reported :	***05/28/99***
Date Activated :	***05/28/99***
Date Due :	***05/28/99***
Date Validated :	***05/28/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-054).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992486. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992486***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***05/28/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-054).***

Sample ID : ***"WW-EFF-054"***

Sampled By : ***NA of Roy F. Weston***
Sample Date : ***5/28/99***
Sample Time : ***0730***

Date Received : ***5/28/99***
Sample Type : ***aqueous***
KAR Sample No. : ***992486-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Complete		EPA 3510	5/28/99	SAS	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	5/28/99	MSZ	
DCB (pest/PCB surr spk)	39	% spike recovery	EPA 8082	5/28/99	MSZ	
TMX (surr spk)	11	% spike recovery	EPA 8082	5/28/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *992486*

Client: ***Roy F. Weston, Inc.***

Date Reported : *05/28/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-054).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *5/28/99*
Sample Type : *aqueous*
KAR Sample No. : *992486-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep SCD	Completed		EPA 3510	5/28/99	SAS	
PCB Arcolor 1016	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolor 1221	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolor 1232	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolor 1242	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolor 1248	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolor 1254	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolor 1260	<0.1	ug/L	EPA 8082	5/28/99	MSZ	
PCB Arcolors, total	NA		EPA 8082	5/28/99	MSZ	
DCB (pest/PCB surr spk)	85	% spike recovery	EPA 8082	5/28/99	MSZ	
TCMX (surr spk)	36	% spike recovery	EPA 8082	5/28/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***992515***
Date Reported :	***06/03/99***
Date Activated :	***06/02/99***
Date Due :	***06/03/99***
Date Validated :	***06/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-055).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992515. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992515***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-055).***

Sample ID : ***"WW-EFF-055"***

Sampled By : *NA of Roy F. Weston*
Sample Date : *6/2/1999*
Sample Time : *0745*

Date Received : *6/2/1999*
Sample Type : *aqueous*
KAR Sample No. : *992515-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	6/2/1999	PML	
Prep metals	Completed		EPA 30xx,200.x	6/2/1999	DBL	
Cadmium, total	<5	ug/L	EPA 200.7	6/2/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/2/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	6/2/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/2/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 7470A	6/3/1999	DBL	
Nickel, total	<20	ug/L	EPA 200.7	6/2/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	6/2/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/2/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/2/1999	MCB	
pH	7.8	S.U.	EPA 150.1	6/2/1999	MCB	
IDNR Scan 2	See below		EPA 624	6/2/1999	DLB	
Prep VOA	Completed		EPA 624	6/2/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/2/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/2/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/2/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/2/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/2/1999	DLB	
Prep ECD	Completed		EPA 3510	6/2/1999	SAS	
PCB Arcolor 1016	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolor 1221	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolor 1232	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolor 1242	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolor 1248	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolor 1254	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolor 1260	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Arcolors, total	NA		EPA 8082	6/3/1999	MSZ	
12DCA-D4 (surr spk)	97	% spike recovery	EPA 624	6/2/1999	DLB	
BFB (surr spk)	109	% spike recovery	EPA 624	6/2/1999	DLB	
Toluene-D8 (surr spk)	98	% spike recovery	EPA 624	6/2/1999	DLB	
DCB (pest/PCB surr spk)	43	% spike recovery	EPA 8082	6/3/1999	MSZ	
TCMX (surr spk)	22	% spike recovery	EPA 8082	6/3/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992515***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-055).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *6/2/1999*

Sample Type : *aqueous*

KAR Sample No. : *992515-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	6/2/1999	PML	
Prep metals	Completed		EPA 30xx,200.x	6/2/1999	DBL	
Cadmium, total	<5	ug/L	EPA 200.7	6/2/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/2/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	6/2/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/2/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 7470A	6/3/1999	DBL	
Nickel, total	<20	ug/L	EPA 200.7	6/2/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	6/2/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/2/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/2/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/2/1999	DLB	
Prep VOA	Completed		EPA 624	6/2/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/2/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/2/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/2/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/2/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/2/1999	DLB	
Prep ECD	Completed		EPA 3510	6/2/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	6/3/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	6/3/1999	MSZ	
12DCA-D4 (surr spk)	92	% spike recovery	EPA 624	6/2/1999	DLB	
EFB (surr spk)	116	% spike recovery	EPA 624	6/2/1999	DLB	
Toluene-D8 (surr spk)	95	% spike recovery	EPA 624	6/2/1999	DLB	
DCB (pest/PCB surr spk)	88	% spike recovery	EPA 8082	6/3/1999	MSZ	
TCMX (surr spk)	41	% spike recovery	EPA 8082	6/3/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	*992609*
Date Reported :	*06/07/95*
Date Activated :	*06/04/95*
Date Due :	*06/07/95*
Date Validated :	*06/07/95*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-056).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992609 To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *992609*

Client: *Roy F. Weston, Inc.*

Date Reported : *06/07/99*

Project Description : *Analysis of one sample from Kalamazoo River Superfund (WW-EFF-056).*

Sample ID : *"WW-EFF-056"*

Sampled By : *NA of Roy F. Weston*
Sample Date : *6/4/99*
Sample Time : *1330*

Date Received : *6/4/99*
Sample Type : *aqueous*
KAR Sample No. : *992609-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep SOD	Completed		EPA 3510	6/4/99	MJY	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	6/7/99	MSZ	
DCB (pest/PCB surr spk)	74	% spike recovery	EPA 8082	6/7/99	MSZ	
TCMX (surr spk)	28	% spike recovery	EPA 8082	6/7/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *992609*

Client: *Roy F. Weston, Inc.*

Date Reported : *06/07/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-056).***

Sample ID : ***Blank***

Sampled By :

Sample Date : *6/4/99*

Sample Time :

Date Received : *6/4/99*

Sample Type : *aqueous*

KAR Sample No. : *992609-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	6/4/99	MJY	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	6/7/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	6/7/99	MSZ	
DCB (pest/PCB surr spk)	102	% spike recovery	EPA 8082	6/7/99	MSZ	
TCMX (surr spk)	42	% spike recovery	EPA 8082	6/7/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***992699***
Date Reported :	***06/10/99***
Date Activated :	***06/09/99***
Date Due :	***06/10/99***
Date Validated :	***06/10/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-057).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992699. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992699***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/10/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-057).***

Sample ID : ***"WW-EFF-057"***

Sampled By : *NA of Roy F. Weston*
Sample Date : *6/9/1999*
Sample Time : *1445*

Date Received : *6/9/1999*
Sample Type : *aqueous*
KAR Sample No. : *992699-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 245.2	6/10/1999	PML	
Prep, metals	Completed		EPA 30xx,200.x	6/10/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	6/10/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/10/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	6/10/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/10/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	6/10/1999	PML	
Nickel, total	<20	ug/L	EPA 200.7	6/10/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	6/10/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/10/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/10/1999	MCB	
PH	7.9	S.U	EPA 150.1	6/9/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/10/1999	DLB	
Prep, VOA	Completed		EPA 624	6/10/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/10/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/10/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/10/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/10/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/10/1999	DLB	
Prep, ECD	Completed		EPA 3510	6/10/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	6/10/1999	MSZ	
12DCA-D4 (surr spk)	111	% spike recovery	EPA 624	6/10/1999	DLB	
BFB (surr spk)	110	% spike recovery	EPA 624	6/10/1999	DLB	
Toluene-D8 (surr spk)	98	% spike recovery	EPA 624	6/10/1999	DLB	
DCB (pest/PCB surr spk)	83	% spike recovery	EPA 8082	6/10/1999	MSZ	
TCMX (surr spk)	34	% spike recovery	EPA 8082	6/10/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992699***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/10/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-057).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***6/9/1999***

Sample Type : ***aqueous***

KAR Sample No. : ***992699-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, hg	Completed		EPA 245.2	6/10/1999	PML	
Prep, metals	Completed		EPA 30xx,200.x	6/10/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	6/10/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/10/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	6/10/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/10/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	6/10/1999	PML	
Nickel, total	<20	ug/L	EPA 200.7	6/10/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	6/10/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/10/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/10/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/10/1999	DLB	
Prep, VOA	Completed		EPA 624	6/10/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/10/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/10/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/10/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/10/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/10/1999	DLB	
Prep, ECD	Completed		EPA 3510	6/10/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	6/10/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	6/10/1999	MSZ	
12DCA-D4 (surr spk)	107	% spike recovery	EPA 624	6/10/1999	DLB	
BFB (surr spk)	112	% spike recovery	EPA 624	6/10/1999	DLB	
Toluene-D8 (surr spk)	99	% spike recovery	EPA 624	6/10/1999	DLB	
DCB (pest/PCB surr spk)	82	% spike recovery	EPA 8082	6/10/1999	MSZ	
TCMX (surr spk)	29	% spike recovery	EPA 8082	6/10/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992820***
Date Reported :	***06/17/99***
Date Activated :	***06/15/99***
Date Due :	***06/17/99***
Date Validated :	***06/17/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-058).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992820. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *992820*

Client: ***Roy F. Weston, Inc.***

Date Reported : *06/17/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-058).***

Sample ID : ***"WW-EFF-058"***

Sampled By : ***DME of Roy F. Weston***

Sample Date : ***6/15/99***

Sample Time : ***1630***

Date Received : ***6/15/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992820-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	6/16/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	6/16/99	DBL	
Cadmium, total	<5	ug/L	EPA 200.7	6/16/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/16/99	PML	
Copper, total	<20	ug/L	EPA 200.7	6/16/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/16/99	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	6/17/99	MTM	
Nickel, total	<20	ug/L	EPA 200.7	6/16/99	PML	
Zinc, total	20	ug/L	EPA 200.7	6/16/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/16/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/16/99	MCB	
pH	7.8	S.U	EPA 150.1	6/15/99	JMS	
DNR Scan 2	See below		EPA 624	6/16/99	DLB	
Prep VOA	Completed		EPA 624	6/16/99	DLB	
Benzene	<1	ug/L	EPA 624	6/16/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/16/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/16/99	DLB	
O-Xylene	<1	ug/L	EPA 624	6/16/99	DLB	
Toluene	<1	ug/L	EPA 624	6/16/99	DLB	
Prep ECD	Completed		EPA 3510	6/16/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Aroclors, total	NA		EPA 8082	6/16/99	GMB	
12DCA-D4 (surr spk)	114	% spike recovery	EPA 624	6/16/99	DLB	
EFB (surr spk)	112	% spike recovery	EPA 624	6/16/99	DLB	
Toluene-D8 (surr spk)	98	% spike recovery	EPA 624	6/16/99	DLB	
DCB (pest/PCB surr spk)	89	% spike recovery	EPA 8082	6/16/99	GMB	
TCMX (surr spk)	58	% spike recovery	EPA 8082	6/16/99	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992820***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/17/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-058).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***6/15/99***

Sample Type : ***aqueous***

KAR Sample No. : ***992820-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	6/16/99	MTM	
Prep metals	Completed		EPA 30xx,200.x	6/16/99	DBL	
Cadmium, total	<5	ug/L	EPA 200.7	6/16/99	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/16/99	PML	
Copper, total	<20	ug/L	EPA 200.7	6/16/99	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/16/99	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	6/17/99	MTM	
Nickel, total	<20	ug/L	EPA 200.7	6/16/99	PML	
Zinc, total	<10	ug/L	EPA 200.7	6/16/99	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/16/99	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/16/99	MCB	
MDNR Scan 2	See below		EPA 624	6/16/99	DLB	
Prep VOA	Completed		EPA 624	6/16/99	DLB	
Benzene	<1	ug/L	EPA 624	6/16/99	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/16/99	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/16/99	DLB	
O-Xylene	<1	ug/L	EPA 624	6/16/99	DLB	
Toluene	<1	ug/L	EPA 624	6/16/99	DLB	
Prep ECD	Completed		EPA 3510	6/16/99	SAS	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	6/16/99	GMB	
PCB Arcclors, total	NA		EPA 8082	6/16/99	GMB	
12DCA-D4 (surr spk)	111	% spike recovery	EPA 624	6/16/99	DLB	
BFB (surr spk)	113	% spike recovery	EPA 624	6/16/99	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	6/16/99	DLB	
DCB (pest/PCB surr spk)	46	% spike recovery	EPA 8082	6/16/99	GMB	
TCMX (surr spk)	16	% spike recovery	EPA 8082	6/16/99	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992988***
Date Reported :	***06/29/99***
Date Activated :	***06/23/99***
Date Due :	***06/30/99***
Date Validated :	***06/29/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-059).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992988. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***992988***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/29/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-059).***

Sample ID : ***"WW-EFF-059"***

Sampled By : *DME of Roy F. Weston*
Sample Date : *6/23/1999*
Sample Time : *1430*

Date Received : *6/23/1999*
Sample Type : *aqueous*
KAR Sample No. : *992988-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	6/24/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	6/24/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	6/25/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/25/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	6/25/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/25/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	6/25/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	6/25/1999	PML	
Zinc, total	20	ug/L	EPA 200.7	6/25/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/25/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/25/1999	MCB	
PH	8.0	S.U.	EPA 150.1	6/23/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/24/1999	DLB	
Prep VOA	Completed		EPA 624	6/24/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/24/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/24/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/24/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/24/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/24/1999	DLB	
Prep ECD	Completed		EPA 3510	6/25/1999	SAS	
PCB Arcolor 1016	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolor 1221	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolor 1232	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolor 1242	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolor 1248	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolor 1254	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolor 1260	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Arcolors, total	NA		EPA 8082	6/26/1999	MSZ	
12DCA-D4 (surr spk)	117	% spike recovery	EPA 624	6/24/1999	DLB	
BFB (surr spk)	117	% spike recovery	EPA 624	6/24/1999	DLB	
Toluene-D8 (surr spk)	101	% spike recovery	EPA 624	6/24/1999	DLB	
DCB (pest/PCB surr spk)	48	% spike recovery	EPA 8082	6/26/1999	MSZ	
TCMX (surr spk)	23	% spike recovery	EPA 8082	6/26/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***992988***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***06/29/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-059).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *6/23/1999*

Sample Type : *aqueous*

KAR Sample No. : *992988-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	6/24/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	6/24/1999	PML	
Cadmium, total	<5	ug/L	EPA 200.7	6/25/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	6/25/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	6/25/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	6/25/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	6/25/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	6/25/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	6/25/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	6/25/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	6/25/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/24/1999	DLB	
Prep VOA	Completed		EPA 624	6/24/1999	DLB	
enzene	<1	ug/L	EPA 624	6/24/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/24/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/24/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/24/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/24/1999	DLB	
Prep ECD	Completed		EPA 3510	6/25/1999	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	6/26/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	6/26/1999	MSZ	
12DCA-D4 (surr spk)	114	% spike recovery	EPA 624	6/24/1999	DLB	
EFB (surr spk)	121	% spike recovery	EPA 624	6/24/1999	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	6/24/1999	DLB	
DCB (pest/PCB surr spk)	73	% spike recovery	EPA 8082	6/26/1999	MSZ	
TCMX (surr spk)	37	% spike recovery	EPA 8082	6/26/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***993064***
Date Reported :	***07/06/99***
Date Activated :	***06/28/99***
Date Due :	***07/06/99***
Date Validated :	***07/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-060).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993064. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***993064***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-060).***

Sample ID : ***"WW-EFF-060"***

Sampled By : ***DME of Roy F. Weston***
Sample Date : ***6/28/1999***
Sample Time : ***1630***

Date Received : ***6/28/1999***
Sample Type : ***aqueous***
KAR Sample No. : ***993064-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	7/2/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	6/30/1999	MTM	
Cadmium, total	<5	ug/L	EPA 200.7	7/1/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	7/1/1999	PML	
Copper, total	<20	ug/L	EPA 200.7	7/1/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	7/1/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 245.2	7/2/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	7/1/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	7/1/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	7/5/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	7/1/1999	MCB	
PH	8.0	S.U	EPA 150.1	6/28/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/29/1999	DLB	
Prep VOA	Completed		EPA 624	6/29/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/29/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/29/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/29/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/29/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/29/1999	DLB	
Prep ECD	Completed		EPA 3510	7/1/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	7/2/1999	MSZ	
12DCA-D4 (surr spk)	101	% spike recovery	EPA 624	6/29/1999	DLB	
BFB (surr spk)	112	% spike recovery	EPA 624	6/29/1999	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	6/29/1999	DLB	
DCB (pest/PCB surr spk)	95	% spike recovery	EPA 8082	7/2/1999	MSZ	
TCMX (surr spk)	44	% spike recovery	EPA 8082	7/2/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***993064***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/06/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-060).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *6/28/1999*

Sample Type : *aqueous*

KAR Sample No. : *993064-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	7/2/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	6/30/1999	MTM	
Cadmium total	<5	ug/L	EPA 200.7	7/1/1999	PML	
Chromium, total	<10	ug/L	EPA 200.7	7/1/1999	PML	
Copper total	<20	ug/L	EPA 200.7	7/1/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 200.7	7/1/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 245.2	7/2/1999	MTM	
Nickel, total	<20	ug/L	EPA 200.7	7/1/1999	PML	
Zinc, total	<10	ug/L	EPA 200.7	7/1/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	7/5/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	7/1/1999	MCB	
MDNR Scan 2	See below		EPA 624	6/29/1999	DLB	
Prep VOA	Completed		EPA 624	6/29/1999	DLB	
Benzene	<1	ug/L	EPA 624	6/29/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	6/29/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	6/29/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	6/29/1999	DLB	
Toluene	<1	ug/L	EPA 624	6/29/1999	DLB	
Prep ECD	Completed		EPA 3510	7/1/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/2/1999	MSZ	
12DCA-D4 (surr spk)	106	% spike recovery	EPA 624	6/29/1999	DLB	
EFB (surr spk)	117	% spike recovery	EPA 624	6/29/1999	DLB	
Toluene-D8 (surr spk)	96	% spike recovery	EPA 624	6/29/1999	DLB	
DCB (pest/PCB surr spk)	103	% spike recovery	EPA 8082	7/2/1999	MSZ	
TCMX (surr spk)	34	% spike recovery	EPA 8082	7/2/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***993143***
Date Reported :	***07/08/99***
Date Activated :	***07/02/99***
Date Due :	***07/08/99***
Date Validated :	***07/08/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-061).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993143. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *993143*

Client: *Roy F. Weston, Inc.*

Date Reported : *07/08/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-061).***

Sample ID : *"WW-EFF-061"*

Sampled By : *DME of Roy F. Weston*
Sample Date : *7/2/99*
Sample Time : *0830*

Date Received : *7/2/99*
Sample Type : *aqueous*
KAR Sample No. : *993143-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep_ECD	Completed		EPA 3510	7/6/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/7/99	MSZ	
DCB (pest/PCB surr spk)	90	% spike recovery	EPA 8082	7/7/99	MSZ	
TCMX (surr spk)	32	% spike recovery	EPA 8082	7/7/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***993143***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/08/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-061).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *7/2/99*

Sample Type : *aqueous*

KAR Sample No. : *993143-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	7/6/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/7/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/7/99	MSZ	
DCB (pest/PCB surr spk)	104	% spike recovery	EPA 8082	7/7/99	MSZ	
TCMX (surr spk)	27	% spike recovery	EPA 8082	7/7/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***993289***
Date Reported :	***07/15/99***
Date Activated :	***07/12/99***
Date Due :	***07/15/99***
Date Validated :	***07/15/99***

Project Description : ***Analysis of two samples from Kalamazoo River Superfund (WW-EFF-062).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993289. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology Inorganics Regulated Organics and Synthetic Organics through USEPA Michigan Department of Public Health and Indiana State Department of Health This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***993289***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***07/15/99***

Project Description : ***Analysis of two samples from Kalamazoo River Superfund (WW-EFF-062).***

Sample ID : ***"WW-EFF-062, 7/12/99"***

Sampled By : *DME of Roy F. Weston* **Date Received :** *7/12/1999*

Sample Date : *7/12/1999* **Sample Type :** *aqueous*

Sample Time : *1200* **KAR Sample No. :** *993289-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	7/12/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	7/13/1999	MTM	
Cadmium, total	<5	ug/L	EPA 6010B	7/14/1999	PML	
Chromium, total	<10	ug/L	EPA 6010B	7/14/1999	PML	
Copper, total	<20	ug/L	EPA 6010B	7/14/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 6010B	7/14/1999	PML	
Mercury, total, low level	<0.2	ug/L	EPA 7470A	7/13/1999	DBL	
Nickel, total	<25	ug/L	EPA 6010B	7/14/1999	PML	
Zinc, total	10	ug/L	EPA 6010B	7/14/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	7/13/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	7/13/1999	MCB	
PH	7.8	S.U	EPA 150.1	7/12/1999	MCB	
Prep ECD	Completed		EPA 3510	7/13/1999	MJY	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	7/14/1999	MSZ	
DCB (pest/PCB surr spk)	74	% spike recovery	EPA 8082	7/14/1999	MSZ	
TCMX (surr spk)	30	% spike recovery	EPA 8082	7/14/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston Inc.

LABORATORY REPORT

KAR Project No. : ***993289***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/16/99***

Project Description : ***Analysis of two samples from Kalamazoo River Superfund (WW-EFF-062).***

Sample ID : ***"WW-EFF-062, 7/13/99"***

Sampled By : *DME of Roy F. Weston*

Sample Date : *7/13/1999*

Sample Time :

Date Received : *7/13/1999*

Sample Type : *aqueous*

KAR Sample No. : *993289-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
MDNR Scan 2	See below		EPA 624	7/13/1999	DLB	
Prep VOA	Completed		EPA 624	7/13/1999	DLB	
Benzene	<1	ug/L	EPA 624	7/13/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	7/13/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	7/13/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	7/13/1999	DLB	
Toluene	<1	ug/L	EPA 624	7/13/1999	DLB	
12DCA-D4 (surr spk)	102	% spike recovery	EPA 624	7/13/1999	DLB	
BFB (surr spk)	108	% spike recovery	EPA 624	7/13/1999	DLB	
Toluene-D8 (surr spk)	97	% spike recovery	EPA 624	7/13/1999	DLB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***993289***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/16/99***

Project Description : ***Analysis of two samples from Kalamazoo River Superfund (WW-EFF-062).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***7/12/1999***
Sample Type : ***aqueous***
KAR Sample No. : ***993289-03***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep Hg	Completed		EPA 245.2	7/12/1999	MTM	
Prep metals	Completed		EPA 30xx,200.x	7/13/1999	MTM	
Cadmium, total	<5	ug/L	EPA 6010B	7/14/1999	PML	
Chromium, total	<10	ug/L	EPA 6010B	7/14/1999	PML	
Copper, total	<20	ug/L	EPA 6010B	7/14/1999	PML	
Lead, total, by ICP	<50	ug/L	EPA 6010B	7/14/1999	PML	
Mercury, total low level	<0.2	ug/L	EPA 7470A	7/13/1999	DBL	
Nickel, total	<25	ug/L	EPA 6010B	7/14/1999	PML	
Zinc, total	<10	ug/L	EPA 6010B	7/14/1999	PML	
Cyanide, total	<5	ug/L	EPA 335.2	7/13/1999	JMS	
Gravimetric TPH (SGT-HEM)	<5	mg/L	EPA 1664	7/13/1999	MCB	
MDNR Scan 2	See below		EPA 624	7/13/1999	DLB	
Prep VOA	Completed		EPA 624	7/13/1999	DLB	
Benzene	<1	ug/L	EPA 624	7/13/1999	DLB	
Ethylbenzene	<1	ug/L	EPA 624	7/13/1999	DLB	
M-and/or p-xylene	<1	ug/L	EPA 624	7/13/1999	DLB	
O-Xylene	<1	ug/L	EPA 624	7/13/1999	DLB	
Toluene	<1	ug/L	EPA 624	7/13/1999	DLB	
Prep ECD	Completed		EPA 3510	7/13/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/14/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/14/1999	MSZ	
12DCA-D4 (surr spk)	100	% spike recovery	EPA 624	7/13/1999	DLB	
EFB (surr spk)	110	% spike recovery	EPA 624	7/13/1999	DLB	
Toluene-D8 (surr spk)	98	% spike recovery	EPA 624	7/13/1999	DLB	
DCB (pest/PCB surr spk)	97	% spike recovery	EPA 8082	7/14/1999	MSZ	
TCMX (surr spk)	37	% spike recovery	EPA 8082	7/14/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. : ***993364***
Date Reported : ***07/20/99***
Date Activated : ***07/15/99***
Date Due : ***07/20/99***
Date Validated : ***07/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-063).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993364. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***993364***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-063).***

Sample ID : ***"WW-EFF-063"***

Sampled By : ***DME of Roy F. Weston***

Sample Date : ***7/15/99***

Sample Time : ***1500***

Date Received : ***7/15/99***

Sample Type : ***aqueous***

KAR Sample No. : ***993364-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	7/16/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/16/99	MSZ	
DCB (pest/PCB surr spk)	83	% spike recovery	EPA 8082	7/16/99	MSZ	
TCMX (surr spk)	41	% spike recovery	EPA 8082	7/16/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***993364***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***07/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-063).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***7/15/99***
Sample Type : ***aqueous***
KAR Sample No. : ***993364-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	7/16/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/16/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/16/99	MSZ	
DCB (pest/PCB surr spk)	100	% spike recovery	EPA 8082	7/16/99	MSZ	
TCMX (surr spk)	42	% spike recovery	EPA 8082	7/16/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. : ***993490***
Date Reported : ***07/27/99***
Date Activated : ***07/22/99***
Date Due : ***07/27/99***
Date Validated : ***07/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-064).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993490. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***993490***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-064).***

Sample ID : ***"WW-EFF-064"***

Sampled By : *DME of Roy F. Weston, Inc.*
Sample Date : *7/22/1999*
Sample Time : *0800*

Date Received : *7/22/1999*
Sample Type : *aqueous*
KAR Sample No. : *993490-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	7/23/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/26/1999	MSZ	
DCB (pest/PCB surr spk)	91	% spike recovery	EPA 8082	7/26/1999	MSZ	
TCMX (surr spk)	44	% spike recovery	EPA 8082	7/26/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***993490***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-064).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *7/22/1999*
Sample Type : *aqueous*
KAR Sample No. : *993490-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/23/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/26/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/26/1999	MSZ	
DCB (pest/PCB surr spk)	95	% spike recovery	EPA 8082	7/26/1999	MSZ	
TCMX (surr spk)	30	% spike recovery	EPA 8082	7/26/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***993573***
Date Reported :	***07/30/99***
Date Activated :	***07/27/99***
Date Due :	***07/30/99***
Date Validated :	***07/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-065).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993573. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *993573*

Client: *Roy F. Weston, Inc.*

Date Reported : *07/30/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-065).***

Sample ID : *"WW-EFF-065"*

Sampled By : *OGN of Roy F. Weston*

Sample Date : *7/27/99*

Sample Time : *1430*

Date Received : *7/27/99*

Sample Type : *aqueous*

KAR Sample No. : *993573-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/28/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/29/99	MSZ	
DCB (pest/PCB surr spk)	91	% spike recovery	EPA 8082	7/29/99	MSZ	
TCMX (surr spk)	39	% spike recovery	EPA 8082	7/29/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***993573***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/30/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-065).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *7/27/99*

Sample Type : *aqueous*

KAR Sample No. : *993573-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/28/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/29/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	7/29/99	MSZ	
DCB (pest/PCB surr spk)	99	% spike recovery	EPA 8082	7/29/99	MSZ	
TCMX (surr spk)	36	% spike recovery	EPA 8082	7/29/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9658

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***993676***
Date Reported :	***08/04/99***
Date Activated :	***07/30/99***
Date Due :	***08/04/99***
Date Validated :	***08/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-066).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993676. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *993676*

Client: *Roy F. Weston, Inc.*

Date Reported : *08/04/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-066).***

Sample ID : *"WW-EFF-066"*

Sampled By : *DME of Roy F. Weston*
Sample Date : *7/30/99*
Sample Time : *1230*

Date Received : *7/30/99*
Sample Type : *aqueous*
KAR Sample No. : *993676-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/2/99	SAS	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	8/3/99	MSZ	
DCB (pest/PCB surr spk)	82	% spike recovery	EPA 8082	8/3/99	MSZ	
TCMX (surr spk)	34	% spike recovery	EPA 8082	8/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***993676***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***08/04/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-066).***

Sample ID : ***Laboratory Method Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***7/30/99***

Sample Type : ***aqueous***

KAR Sample No. : ***993676-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/2/99	SAS	
PCB Arcolor 1016	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolor 1221	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolor 1232	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolor 1242	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolor 1248	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolor 1254	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolor 1260	<0.1	ug/L	EPA 8082	8/3/99	MSZ	
PCB Arcolors, total	NA		EPA 8082	8/3/99	MSZ	
DCB (pest/PCB surr spk)	87	% spike recovery	EPA 8082	8/3/99	MSZ	
TCMX (surr spk)	20	% spike recovery	EPA 8082	8/3/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9665
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***993792***
Date Reported :	***08/10/99***
Date Activated :	***08/05/99***
Date Due :	***08/10/99***
Date Validated :	***08/09/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-067).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993792. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *993792*

Client: ***Roy F. Weston, Inc.***

Date Reported : *08/10/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-067).***

Sample ID : ***"WW-EFF-067"***

Sampled By : ***OGN of Roy F. Weston***
Sample Date : ***8/5/99***
Sample Time : ***1030***

Date Received : ***8/5/99***
Sample Type : ***aqueous***
KAR Sample No. : ***993792-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/6/99	MJY	
PCB	See below		EPA 8082	8/6/99	GMB	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Arcclors, total	NA		EPA 8082	8/6/99	GMB	
DCB (pest/PCB surr spk)	61	% spike recovery	EPA 8082	8/6/99	GMB	
TCMX (surr spk)	29	% spike recovery	EPA 8082	8/6/99	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

LABORATORY REPORT

KAR Project No. : *993792*

Client: *Roy F. Weston, Inc.*

Date Reported : *08/10/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-067).***

Sample ID : ***Laboratory Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *8/5/99*
Sample Type : *aqueous*
KAR Sample No. : *993792-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/6/99	MJY	
PCB	See below		EPA 8082	8/6/99	GMB	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	8/6/99	GMB	
PCB Aroclors, total	NA		EPA 8082	8/6/99	GMB	
DCB (pest/PCB surr spk)	74	% spike recovery	EPA 8082	8/6/99	GMB	
TCMX (surr spk)	38	% spike recovery	EPA 8081	8/6/99	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***993935***
Date Reported :	***08/17/99***
Date Activated :	***08/12/99***
Date Due :	***08/17/99***
Date Validated :	***08/17/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-068).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993935. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666

LABORATORY REPORT

KAR Project No. : ***993935***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***08/17/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-068).***

Sample ID : ***"WW-EFF-068"***

Sampled By : *DME of Roy F. Weston* **Date Received :** *8/12/1999*

Sample Date : *8/12/1999* **Sample Type :** *aqueous*

Sample Time : *1030* **KAR Sample No. :** *993935-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/13/1999	SAS	
PCB	See below		EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	8/16/1999	MSZ	
DCB (pest/PCB surr spk)	56	% spike recovery	EPA 8082	8/16/1999	MSZ	
TCMX (surr spk)	25	% spike recovery	EPA 8082	8/16/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : 993935

Client: *Roy F. Weston, Inc.*

Date Reported : *08/17/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-068).***

Sample ID : ***Laboratory Method Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *8/12/1999*

Sample Type : *aqueous*

KAR Sample No. : *993935-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/13/1999	SAS	
PCB	See below		EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	8/16/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	8/16/1999	MSZ	
DCB (pest/PCB surr spk)	84	% spike recovery	EPA 8082	8/16/1999	MSZ	
TCMX (surr spk)	35	% spike recovery	EPA 8082	8/16/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***994025***
Date Reported :	***08/20/99***
Date Activated :	***08/17/99***
Date Due :	***08/20/99***
Date Validated :	***08/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-069).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 994025. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***994025***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***08/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-069).***

Sample ID : ***"WW-EFF-069"***

Sampled By : *DME of Roy F. Weston*
Sample Date : *8/17/1999*
Sample Time : *1500*

Date Received : *8/17/1999*
Sample Type : *aqueous*
KAR Sample No. : *994025-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/18/1999	SAS	
PCB	See below		EPA 8082	8/19/1999	GMB	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclors, total	NA		EPA 8082	8/19/1999	GMB	
DCB (pest/PCB surr spk)	50	% spike recovery	EPA 8082	8/19/1999	GMB	
TCMX (surr spk)	26	% spike recovery	EPA 8082	8/19/1999	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston Inc.

LABORATORY REPORT

KAR Project No. : ***994025***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***08/20/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-069).***

Sample ID : ***Laboratory Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *8/17/1999*
Sample Type : *aqueous*
KAR Sample No. : *994025-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep: ECD	Completed		EPA 3510	8/18/1999	SAS	
PCB	See below		EPA 8082	8/19/1999	GMB	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	8/19/1999	GMB	
PCB Arcclors: total	NA		EPA 8082	8/19/1999	GMB	
DCB (pest/PCB surr spk)	76	% spike recovery	EPA 8082	8/19/1999	GMB	
TCMX (surr spk)	31	% spike recovery	EPA 8082	8/19/1999	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 4900?
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***994204***
Date Reported :	***08/27/99***
Date Activated :	***08/26/99***
Date Due :	***08/27/99***
Date Validated :	***08/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-070).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 994204. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***994204***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***08/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-070).***

Sample ID : ***"WW-EFF-070"***

Sampled By : *DME of Roy F. Weston*
Sample Date : *8/26/1999*
Sample Time : *1230*

Date Received : *8/26/1999*
Sample Type : *aqueous*
KAR Sample No. : *994204-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/26/1999	MJY	
PCB	See below		EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	8/27/1999	MSZ	
DCB (pest/PCB surr spk)	77	% spike recovery	EPA 8082	8/27/1999	MSZ	
TCMX (surr spk)	31	% spike recovery	EPA 8082	8/27/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***994204***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***08/27/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-070).***

Sample ID : ***Laboratory Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *8/26/1999*
Sample Type : *aqueous*
KAR Sample No. : *994204-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/26/1999	MJY	
PCB	See below		EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	8/27/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	8/27/1999	MSZ	
DCB (pest/PCB surr spk)	73	% spike recovery	EPA 8082	8/27/1999	MSZ	
TCMX (surr spk)	34	% spike recovery	EPA 8082	8/27/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***994257***
Date Reported :	***08/31/99***
Date Activated :	***08/30/99***
Date Due :	***08/31/99***
Date Validated :	***08/31/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-071).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 994257 To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***994257***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***08/31/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-071).***

Sample ID : ***"WW-EFF-071"***

Sampled By : *DME of Roy F. Weston* **Date Received :** *8/30/1999*

Sample Date : *8/30/1999* **Sample Type :** *aqueous*

Sample Time : *1500* **KAR Sample No. :** *994257-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/30/1999	SAS	
PCB	See below		EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	8/31/1999	MSZ	
DCB (pest/PCB surr spk)	32	% spike recovery	EPA 8082	8/31/1999	MSZ	
TCMX (surr spk)	9.0	% spike recovery	EPA 8082	8/31/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***994257***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***08/31/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-071).***

Sample ID : ***Laboratory Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *8/30/1999*
Sample Type : *aqueous*
KAR Sample No. : *994257-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	8/30/1999	SAS	
PCB	See below		EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1016	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1221	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1232	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1242	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1248	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1254	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolor 1260	<0.1	ug/L	EPA 8082	8/31/1999	MSZ	
PCB Arcolors, total	NA		EPA 8082	8/31/1999	MSZ	
DCB (pest/PCB surr spk)	59	% spike recovery	EPA 8082	8/31/1999	MSZ	
TCMX (surr spk)	15	% spike recovery	EPA 8082	8/31/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***994347***
Date Reported :	***09/03/99***
Date Activated :	***09/02/99***
Date Due :	***09/03/99***
Date Validated :	***09/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-072).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 994347. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***994347***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***09/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-072).***

Sample ID : ***"WW-EFF-072"***

Sampled By : *EJF of Roy F. Weston* **Date Received :** *9/2/1999*
Sample Date : *9/2/1999* **Sample Type :** *aqueous*
Sample Time : *1645* **KAR Sample No. :** *994347-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	9/3/1999	SAS	
PCB	See below		EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	9/3/1999	MSZ	
DCB (pest/PCB surr spk)	61	% spike recovery	EPA 8082	9/3/1999	MSZ	
TCMX (surr spk)	33	% spike recovery	EPA 8082	9/3/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***994347***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***09/03/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (WW-EFF-072).***

Sample ID : ***Laboratory Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *9/2/1999*
Sample Type : *LMB*
KAR Sample No. : *994347-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3510	9/3/1999	SAS	
PCB	See below		EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	9/3/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	9/3/1999	MSZ	
DCB (pest/PCB surr spk)	76	% spike recovery	EPA 8082	9/3/1999	MSZ	
TCMX (surr spk)	35	% spike recovery	EPA 8082	9/3/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

APPENDIX E1

CHAIN OF CUSTODY
(STREAM ANALYTICAL)

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

9u694

Page _____ of _____.

Project Contact: Hal Blakemore

Turn Around Requirements: Standard

Project No.:

Project Name: Allied Paper

Sampler (print): Hal Blakemore

Signature: Hal Bl[illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB's	TSS	Turbidity	Temperature	ADDITIONAL REQUIREMENTS
HR-GS-001		✓	9/29/98	1100	Soil				X				
HR-GS-002		✓	9/29/98	1200	Soil				X				
HR-GS-003		✓	9/29/98	1400	Soil				X				
HR-GS-004		✓	9/29/98	1415	Soil				X				
HR-GS-005		✓	9/29/98	1430	Soil				X				
HR-GS-005D		✓	9/29/98	1430	Soil				X				
HR-GS-006		✓	9/29/98	1500	Soil				X				
HR-GS-007		✓	9/29/98	1520	Soil				X				
HR-GS-008		✓	9/29/98	1620	Soil				X				
HR-GS-009		✓	9/29/98	1645	Soil				X				
HR-GS-010		✓	9/29/98	1700	Soil	MS/MSD			X				MS/MSD
HR-GS-011		✓	9/29/98	1715	Soil				X				
HR-GS-012		✓	9/29/98	1730	Soil				X				
HR-RB-001		✓	9/29/98	1745	water				X				
PWN-CP-001	✓		9/29/98	1800	water				X	X	X		
PWS-CP-001	✓		9/29/98	1745	water				X	X	X		
TMP-0001			9/30/98	1100								X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Hal Bl[illegible]	10/5/98						

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Revised COC Correcting stream Samples Client ID #. HB

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

90696

CHAIN-OF-CUSTODY RECORD

Project Contact: Hal Blakemore

Turn Around Requirements: Standard

Project No.:

Project Name: Allied Paper

Sampler (print):

Signature: [signature]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB's	TSS	Turbidity	Temperature													ADDITIONAL REQUIREMENTS
PWN-CP-002	/		9/30/98	1610	water				X	X	X														
PWS-CP-002	/		9/30/98	1630	water				X	X	X														
PWN-CP-003	/		10/1/98	1730	water				X	X	X														
PWS-CP-003	/		10/1/98	1630	water				X	X	X														
PWN-CP-004	/		10/2/98	1745	water				X	X	X														
PWS-CP-004	/		10/2/98	1750	water				X	X	X														
TMP-0002		/	10/2/98	1820								X													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	10/5/98						

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Revised COC Correcting Stream Samples Client ID #

*Homogenize all comp[illegible] samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenton
ENVIRONMENTAL SERVICES

WO# 03886-515-001-0800-00

96702

Page 2 of 2

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE - WESTON

Turn Around Requirements: STANDARD

Project No.: 97267 L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): STEVE FISCHER

Signature: Stephen G. Fischer

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF CONTAINERS	Hold	PCBs	TSS (TOTAL SUSPENDED SOLIDS)	ADDITIONAL REQUIREMENTS
PWN-CP-005	X		10-7-98	1730			2		X	X	
PWS-CP-005	X		10-7-98	1715			2		X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	10-7-98	1800					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						STANDARD TURNAROUND

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenton
ENVIRONMENTAL SERVICES

359

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5 DAY

Project No.: 97267L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): HAL BLAKEMORE

Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB's	T.S.S.	ADDITIONAL REQUIREMENTS
FWM CP-006	X		10/15/98	1600	Water		2		X	X	
FWS CP-006	X		10/15/98	1615	Water		2		X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Stephen Fisher	10/16/98	15:00					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						STREAM SAMPLES

*Homogenize all co samples prior to analysis

White – Lab Yell Office Pink – Field

Kenron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 3-Day

Project No.: 2767L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): Frank Frank

Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCB	Total Suspended Solids
FKN-CP-007	X		10-21-98	15:00	water		2		X	X
PHS-CP-007	X		10-21-98	15:00	water		2		X	X

ADDITIONAL REQUIREMENTS

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	10/27/98	1700					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

885

CHAIN-OF-CUSTODY RECORD

Project Contact: Hal Blakemore

Turn Around Requirements: 3-DAY

Project No.:

Project Name: [illegible] Superfund

Sampler (print): Jason Vallance

Signature: Jason D Vallance

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	[illegible]	ADDITIONAL REQUIREMENTS
~~[illegible]~~ PLUS-[illegible]-008	✓		[illegible]	1:00	Water		2		[illegible]	[illegible]	
PLUN-[illegible]-008	✓		[illegible]	1:15	Water		2		[illegible]	[illegible]	
PLUN-[illegible]-008D	✓		[illegible]	[illegible]	Water		2		[illegible]	[illegible]	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	10/30/98	1700					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Stream Samples

*Homogenize all co[illegible] samples prior to analysis

White – Lab Yel[illegible] [illegible]ffice Pink – Field

Kemron
ENVIRONMENTAL SERVICES

[illegible] 16-738-7318

394

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: [illegible]

Turn Around Requirements: 5 day

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCBs	Total Suspended Solids	ADDITIONAL REQUIREMENTS
FWS-CP-009	X		11-04-98	1815	Water		3		X	X	
FWN-CP-009	X		11-04-98	1830	Water		3		X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	11/5/98	1430					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon WESTERN MICHIGAN

ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5 days

Project No.:

Project Name: Kalamazoo River Superfund

Sampler (print): Gopa Nair

Signature: Gopa Nair

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol ~~CWA~~	Protocol SW846	NUMBER OF SAMPLES	Hold	PCBs	Total Suspended Solids	ADDITIONAL REQUIREMENTS
PWS-CP-010	X		11/11/98	1600	Water		1	+1	X	X	
PWN-CP-010	X		11/11/98	1630	Water	MS/MSD	3	+1	X	X	
PWS-CP-010D	X		11/11/98	1600	Water		~~2~~ 1	+1	X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Gopa Nair	11/12/98	1730					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Stream Samples

*Homogenize all co[illegible] samples prior to analysis

White – Lab Ye[illegible] [illegible]ffice Pink – Field

WES[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

1007

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5 day

Project No.:

Project Name: Kalamazoo River Superfund Site

Sampler (print): [illegible]

Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs														ADDITIONAL REQUIREMENTS
	PN-WWD-01		X	12/01/98	1430	Water				X														

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	12/01/98	1530					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - Office Pink - Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

16.1

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5-days

Project No.: | Project Name: Kalamazoo River Superfund Site

Sampler (print): Gayla Nair | Signature: [signature]

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs	Total Suspended Solids	ADDITIONAL REQUIREMENTS
	PN-SP-01		X	12/31/98	1145	Water		2		X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	12/31/98	1710					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						CREEK SAMPLE (Down Stream) during Sheet-Piling

White - Lab Yellow - Pink - Field

WES[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

1042

Page 4 of 4

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 6 days

Project No.:

Project Name: Kalamazoo River Superfund Site

Sampler (print): [illegible]

Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs	Total Suspended Solids (TSS)													ADDITIONAL REQUIREMENTS
	FWN-CP-011	X		12/19/98	1645	Water				X	X													
	121878-DW-1807		X	12/18/98	1807	Water				X														

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	12/19/98	1700					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks: DOWNSTREAM CALIBRATION CREEK [illegible]

White - Lab Yellow - Office Pink - Field

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston Inc.
266 E. Alcott St
Kalamazoo, MI 49001
Attn: Hal Blakemore
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: Carr

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs; Total Suspended Solids

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Total Suspended Solids	Remarks
	PWN-CP-012	1/20/99	1730	Water	Amber	1L	2	X	X	Det limit 0.01 ppt

Relinquished By: [signature]
Received By: A Erwin
Date/Time: 4:30pm 1/21/99
Notes: STREAM SAMPLE (ALCOTT ST)

Relinquished By:
Received By:
Date/Time:

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. WESTON, INC
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: HAL BLAKEMORE
Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client **Initials** SJV

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	Total Suspended Solids	Remarks
	PWN-CP-013	1/22/99	1600	Water	Amber Plastic	1 Liter	2	X	X	Det limit for
	PWN-CP-013D	1/22/99	1600	Water	↓	↓	↓	X	X	PCBs = 0.01 ppb

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	Hope Bumsted	1/27/99 @ 9:25	STREAM SAMPLES (ALCOTT ST)
Relinquished By:	Received By:	Date/Time:	

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: ROY F. WESTON, INC
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: HAL BLAKEMORE

Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client **Initials** SN

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C Intact: Y N

Requested Analyses

KAR use only
Proj#: 990331
Login: HEB
Date: 1/27/99
c-of-c (Y) N
labels (Y) N
LODs (Y) N
contain (Y) N
headspace Y (N)
amount (Y) N
hold time (Y) N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Total Suspended Solids							Remarks
	PWN-CP-013	1/22/99	1600	Water	Amber Plastic	1 Liter	2	X	X							Det limit for
	~~PWN-CP-013D~~	~~1/22/99~~	~~1600~~	~~Water~~	↓	↓	↓	~~X~~	~~X~~							PCBs = [illegible] ppb

per Nat - Cancell this sample.

Relinquished By: [signature]
Received By: Hope Bemister
Date/Time: 1/27/99 @ 9:25 am

Relinquished By:
Received By:
Date/Time:

Notes: 990264
STREAM SAMPLES (ALCOTT ST)

JAN-29-99 THU 16:04 KAR LABS FAX NO. 6163818696 P.02

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: HAL BLAKEMORE
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: [signature]

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs; Total Suspended Solids

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Total Suspended Solids	Remarks
	012899-DIV-0955	1/28/99	0955	Water	Amber	1 lit	3	X	X	Det limit = 0.05 PPB
	012899-DAM-1145	1/28/99	1145	Water	Amber Plastic	1 lit 1 lit	1 1	X	X	Det limit = 0.1 PPB

Relinquished By: [signature] Received By: Hope Bernstein Date/Time: 1/28/99 @ 4:35p
Relinquished By: Received By: Date/Time:

Notes: DOWNSTREAM CREEK DIVERSION #2 SAMPLE AND ALCOTT ST. DAM SAMPLE.

KAR Labora s, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST
KALAMAZOO, MI 49001
Attn: HAL BLAKEMORE
Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client **Initials** SN ODN

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Total Suspended Solids		MS/MSD						Remarks
	012999-DIV-1340	1/29/99	1340	Water	Amber	1 lit	3	X	X								PCB Det. limit = 0.105 PPb
	PWN-CP-014	1/28/99	1800	water	Amber	1 lit	3	X	X		X						↓

Relinquished By: Sopan Joshi
Received By: Jennifer Kosak
Date/Time: 1/29/99 4:10p

Relinquished By:
Received By:
Date/Time:

Notes: CREEK SAMPLE DOWNSTREAM OF DIVERSION PINCH POINT (UPSTREAM ~~AT~~) (GRAB) & ISCO SAMPLE (COMPOSITE) FROM CREEK AT ALCOTT ST LOCATION

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Attn: HAL BLAKEMORE
Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: [illegible]

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCBs; Total Suspended Solids

KAR use only
Proj#:
Login:
Date:
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Total Suspended Solids	Remarks
	PWN-CP-015	2/1/99	1635	Water	Amber Plastic	1 lit 1 lit	2 1	X	X	Det. limit for PCBs = 0.05 ppb
	PWN-CP-016	2/2/99	1630	Water	Amber Plastic	1 lit 1 lit	2 1	X	X	

Relinquished By:	Received By:	Date/Time:	Notes:
[signature]	Jennifer Kosak	2/10/99 4:55p	STREAM SAMPLES FROM ALCOTT ST. LOCATION (CISCO COMPOSITE SAMPLES)
Relinquished By:	Received By:	Date/Time:	

KAR Labo **es, Inc. (616-381-9666)** (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: Hal Blakemore
Phone: (616) 373-7009 **Fax:** (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client **Initials** SN

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCBs	Total Suspended Solids								Remarks
	PWN-CP-017	2/3/99	1630	Water	Amber Plastic	1 Lit 1 Lit	2 1	X	X								Det. limit 0.05 ppb for PCBs

Relinquished By: [signature]
Received By: [signature]
Date/Time: 2/4/99 2:00 pm

Relinquished By:
Received By:
Date/Time:

Notes: CREEK SAMPLE (1 Co-Composite) FROM ALCOTT ST. LOCATION

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: HAL BLAKEMORE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials CN

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ____
Login: ____
Date: ____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	Total Suspended Solids								Remarks
	PWN-CP-018	2/11/99	0930	Water	Amber Plastic	1 lit 1 lit	2 1	X	X								Det. limit for PCBs = 0.05 PPb
	021099-DIV-1642	2/10/99	1642	Water	Amber	1 lit	3	X	X								↓

Relinquished By:	Received By:	Date/Time:
[signature]	Hope Bemister	2/15/99 @ 10:50
Relinquished By:	Received By:	Date/Time:

Notes: COMPOSITE (ISCO) SAMPLE FROM DOWNSTREAM ALCOTT ST. LOCATION, AND DIVERSION CREEK OPENING DOWNSTREAM SAMPLE FROM ALCOTT ST. LOCATION

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn: Tim LaQuerre

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials: SGN

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ____ °C intact: Y N

Requested Analyses: PCBs; Total Suspended Solids

KAR use only
Proj#: _____
Login: _____
Date: _____

	Y	N
c-of-c		
labels		
LODs		
contain		
headspace		
amount		
hold time		
rush cost		

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Remarks
	PWN-CP-019	3/5/99	1415	Water	Amber	1 Lit	2	Det. limit for PCBs = 0.05 ppb

Relinquished By: [signature]
Received By: Cynthia Kosik
Date/Time: 3/08/99; 2:00p

Relinquished By:
Received By:
Date/Time:

Notes: Composite (ISCO) water sample from Alcott Street location.

KAR Labor 'es, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: ROY F. WESTON, INC.
266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Attn: TIM LAQUERRE

Phone: (616) 373-7009 Fax: (616) 373-7010

Project Name: Kalamazoo River

Project #

P.O. #

Sampled by: ☐ KAR ☒ Client Initials RW

Turnaround Time: ☐ 10-day ☐ Emergency (quote) ☒ 5-day (x 1.5) ☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCBs	Total Suspended Solids								Remarks
	PWN-CP-020	3/16/99	1700	Water	Amber	1 Lit	2	X	X								

Relinquished By: Sepembri

Received By: Jennifer Kosak

Date/Time: 3/17/99 9:00

Relinquished By:

Received By:

Date/Time:

Notes: ISCO (Composite) Water Sample from Alcott St. location in Portage Creek

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc.
266 E. Alcott St
Kalamazoo, MI, 49001
Attn: Tim Laquerre/WESTON
Phone: 616 373-7009 Fax: 616 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCBs	TSS (Total Suspended Solids)	Remarks
	PWN-CP-021	04/20/99	1345	Water	Amber glass	1L	2	X	X	

KAR use only
Proj#: ___
Login: ___
Date: ___

c-of-c	Y	N
labels	Y	N
LODs	Y	N
contain	Y	N
headspace	Y	N
amount	Y	N
hold time	Y	N
rush cost	Y	N

Relinquished By: [signature]
Received By:
Date/Time:

Relinquished By: [signature]
Received By: Jennifer Kosak
Date/Time: 4/20/99 3:40

Notes: Grab Sample obtained at Alcott st location following Re-diverting Creek to original location. (diversion location #1)

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI 49001
Attn: David Ennis
Phone: (616) 373-7008 Fax: (616) 373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials DME

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses: PCB; Total Suspended Solids (TSS)

KAR use only
Proj#: _____
Login: _____
Date: _____
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	PCB	TSS	Remarks
	PWN-CP-023	6/29/99	1800	Water	Amber	1L	3	X	X	

Relinquished By: David M. Z
Received By: Garrett Ervin
Date/Time: 6/30/99 8:10am

Relinquished By:
Received By:
Date/Time:

Notes: PWN-CP-023
Stream Sample north of Alcott St.

R Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

nt: Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001
tn: David Ennis
one: (616)373-7008 Fax: (616)373-7010

Project Name: Kalamazoo River Superfund
Project #
P.O. #
Sampled by: ☐ KAR ☒ Client Initials DME

rnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

Requested Analyses

KAR use only
Proj#: ___
Login: ___
Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

Sample Identification	Sample Info Date	Time	Matrix	Sample Containers Type	Size	#	PCB's	Total Suspended Solids	Remarks
PWN-CP-024	9-1-99	1600	Water	Amber	1L	2	X	X	Det. Limit=.05

elinquished By: David M. S.
Received By: Hope Stanley
Date/Time: 9/01/99@4:
Notes: 5th Stream Sample north of Alcott St.

elinquished By:
Received By:
Date/Time:

APPENDIX E2

STREAM ANALYTICAL DATA

STREAM ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	PCB (ug/L)	TSS (mg/L)	Turbidity (NTU)
PWN-CP-001	Stream	9/29/98	Kemron	0.12	25	5
PWS-CP-001	Stream	9/29/98	Kemron	ND	10	2.8
PWN-CP-002	Stream	9/30/98	Kemron	0.1	9.5	3.4
PWS-CP-002	Stream	9/30/98	Kemron	ND	8	4.4
PWN-CP-003	Stream	10/1/98	Kemron	0.048	5	3.3
PWS-CP-003	Stream	10/1/98	Kemron	ND	ND	2.4
PWN-CP-004	Stream	10/2/98	Kemron	0.14	13	4.3
PWS-CP-004	Stream	10/2/98	Kemron	ND	ND	1.9
PWN-CP-005	Stream	10/7/98	Kemron	0.49	52	
PWS-CP-005	Stream	10/7/98	Kemron	ND	10	
PWN-CP-006	Stream	10/15/98	Kemron	0.044	ND	
PWS-CP-006	Stream	10/15/98	Kemron	ND	6.5	
PWN-CP-007	Stream	10/21/98	W. Michigan	ND	6	
PWS-CP-007	Stream	10/21/98	W. Michigan	ND	6	
PWS-CP-008	Stream	10/29/98	W. Michigan	ND	ND	
PWN-CP-008	Stream	10/29/98	W. Michigan	ND	ND	
PWN-CP-008D	Stream	10/29/98	W. Michigan	ND	ND	
PWS-CP-009	Stream	11/4/98	W. Michigan	ND	6.4	
PWN-CP-009	Stream	11/4/98	W. Michigan	ND	3.2	
PWS-CP-010	Stream	11/12/98	W. Michigan	ND	7	
PWN-CP-010	Stream	11/12/98	W. Michigan	ND	5	
PWS-CP-010D	Stream	11/12/98	W. Michigan	ND	ND	
PN-WWD-01	Stream	12/1/98	W. Michigan	ND		
PN-SP-01	Stream	12/3/98	W. Michigan	ND	16	
PWN-CP-011	Stream	12/19/98	W. Michigan	ND	32	
121898-DIV-1807	Stream	12/19/98	W. Michigan	ND		
PWN-CP-012	Stream	1/20/99	KAR	0.13	8	
PWN-CP-013	Stream	1/22/99	KAR	0.05	<4	
012899-DIV-0955	Stream	1/28/99	KAR	0.12	768	
012899-DAM-1145	Stream	1/28/99	KAR	0.06	20	
012999-DIV-1340	Stream	1/29/99	KAR	0.2	349	
PWN-CP-014	Stream	1/28/99	KAR	0.06	10	
PWN-CP-015	Stream	2/1/99	KAR	ND	15	
PWN-CP-016	Stream	2/2/99	KAR	0.07	40	
PWN-CP-017	Stream	2/3/99	KAR	ND	5	
PWN-CP-018	Stream	2/11/99	KAR	0.11	241	
021099-DIV-1642	Stream	2/10/99	KAR	0.38	726	
PWN-CP-019	Stream	3/5/99	KAR	ND	<4	
PWN-CP-020	Stream	3/16/99	KAR	ND	16	
PWN-CP-021	Stream	4/20/99	KAR	0.2	150	
PWN-CP-022	Stream	5/6/99	KAR	ND	2420	
PWN-CP-023	Stream	6/29/99	KAR	ND	18	
PWN-CP-024	Stream	9/1/99	KAR	ND	<10	

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810019-14
Client Sample ID: HR-RB-001
Site/Work ID: KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/03/98
Analysis Date: 10/04/98 Time:

Instrument: HP5
Analyst: RCL
Lab File ID: 046R0101

Method: 8082\3510C
Run ID: R53650
Batch : WG47006

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor 1016	ug/L		ND	0.11	1.1
11104-28-2	Aroclor 1221	ug/L		ND	0.11	1.1
11141-16-5	Aroclor 1232	ug/L		ND	0.11	1.1
53469-21-9	Aroclor 1242	ug/L		ND	0.11	1.1
12672-29-6	Aroclor 1248	ug/L		ND	0.11	1.1
11097-69-1	Aroclor 1254	ug/L		ND	0.11	1.1
11096-82-5	Aroclor 1260	ug/L		ND	0.11	1.1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	46.8	(13 - 154%)
Decachlorobiphenyl	45.9	(25 - 140%)

Lab Sample ID: L9810019-15
Client Sample ID: PWN-CP-001
Site/Work ID: KALAMAZOO RIVER

Matrix: Water
Collected: 09/29/98 1800

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids	mg/L	25		5.0	1	N/A	DLN	10/04/98	20:10	160.2
Turbidity	NTU	5.0		0.10	1	N/A	DLP	10/01/98	13:45	180.1

RL - Reporting Limit

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810019-15
Client Sample ID: PWN-CP-001
Site/Work ID: KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/29/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/03/98
Analysis Date: 10/04/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 047R0101

Method: 8082\3510C
Run ID: R53650
Batch : WG47006

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248	ug/L	0.12		0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	54.5	(13 - 154%)
Decachlorobiphenyl	43.2	(25 - 140%)

Lab Sample ID: L9810019-16
Client Sample ID: PWS-CP-001
Site/Work ID: KALAMAZOO RIVER

Matrix: Water
Collected: 09/29/98 1745

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids	mg/L	10		5.0	1	N/A	DLN	10/04/98	20:10	160.2
Turbidity	NTU	2.8		0.10	1	N/A	DLP	10/01/98	13:45	180.1

RL = Reporting Limit

08:51 OCT 08, 1998 TO: KEMRON ENVIRONMENTAL FAX NO: 740-373-4835 PAGE: 17/18

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID:	L9810019-16	Dil. Type:	N/A	Sample Weight:	N/A
Client Sample ID:	PWS-CP-001	COC Info:	N/A	Extract Volume:	N/A
Site/Work ID:	KALAMAZOO RIVER				
Matrix:	Water	Date Collected:	09/29/98	% Solid:	N/A
TCLP Extract Date:	N/A	Instrument:	HP4	Method:	8082\3510C
Extract Date:	10/03/98	Analyst:	ECL	Run ID:	R53650
Analysis Date:	10/04/98 Time:	Lab File ID:	048R0101	Batch :	WC47006

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248	ug/L		ND	0.11	1.1
11097-69-1	Aroclor-1254	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260	ug/L		ND	0.11	1.1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		56.8	(13 - 154%)		
	Decachlorobiphenyl		64.1	(25 - 140%)		

RL = Reporting Limit

16:52 OCT 08, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4835 #1871 PAGE: 18/18

Login #L9810086
October 12, 1998 03:51 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810086-01
Client Sample ID: PWN-CP-002
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 09/30/98 1610

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L	9.5		5.0	1	N/A	DLN	10/07/98	17:30	160.2
Turbidity.....	NTU	3.4		0.10	1	N/A	DLN	10/06/98	10:15	180.1

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810086-01
Client Sample ID: PWN-CP-002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/30/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/06/98
Analysis Date: 10/08/98 Time:

Instrument: HP4
Analyst: RCL
Lab File ID: 021F0101

Method: 8082\3510C
Run ID: R53713
Batch : WG47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248.....	ug/L	0.10	J	0.11	1.1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.11	1.1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	37.1	(13 - 154%)
Decachlorobiphenyl.....	45.9	(25 - 140%)

RL - Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810086-02
Client Sample ID: PWS-CP-002
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 09/30/98 1630

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L	8.0		5.0	1	N/A	DLN	10/07/98	17:30	160.2
Turbidity.....	NTU	4.4		0.10	1	N/A	DLN	10/06/98	10:15	180.1

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810086-02
Client Sample ID: PWS-CP-002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 09/30/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/07/98
Analysis Date: 10/08/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 022F0101

Method: 8082\3510C
Run ID: R53713
Batch : WG47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	48.8	(13 - 154%)
Decachlorobiphenyl.....	46.0	(25 - 140%)

RL = Reporting Limit

15:59 OCT 12, 1998 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4635 #1521 PAGE: 4/5

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810086-03
Client Sample ID: PWN-CP-003
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/01/98 1730

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids	mg/L	5.0		5.0	1	N/A	DLN	10/07/98	17:30	160.2
Turbidity.....	NTU	3.3		0.10	1	N/A	DLN	10/06/98	10:15	180.1

Product: 8O8-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810086-03
Client Sample ID: PWN-CP-003
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/01/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/06/98
Analysis Date: 10/08/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 024F0101

Method: 8082\3510C
Run ID: R53713
Batch : WG47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248.....	ug/L	0.048	J	0.11	1.1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.11	1.1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	43.3	(13 - 154%)
Decachlorobiphenyl.....	56.4	(25 - 140%)

RL = Reporting Limit

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810086-04
Client Sample ID: PWS-CP-003
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/01/98 1630

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L		ND	5.0	1	N/A	DLN	10/07/98	17:30	160.2
Turbidity.....	NTU	2.4		0.10	1	N/A	DLN	10/06/98	10:15	180.1

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810086-04
Client Sample ID: PWS-CP-003
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/01/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/07/98
Analysis Date: 10/08/98 Time:

Instrument: HP4
Analyst: RCL
Lab File ID: 025F0101

Method: 8082\3510C
Run ID: R53713
Batch : WG47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.11	1.1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.11	1.1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene.....		49.5	(13 - 154%)		
	Decachlorobiphenyl.....		76.4	(25 - 140%)		

RL = Reporting Limit

5:01 OCT 12, 1998 ID: KEMRON ENVIRONMENTAL TEL NO. 740-373-4635 #1521 PAGE 05

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810086-05
Client Sample ID: PWN-CP-004
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/02/98 1745

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L	13		5.0	1	N/A	DLN	10/07/98	17:30	160.2
Turbidity.....	NTU	4.3		0.10	1	N/A	DLN	10/06/98	10:15	180.1

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810086-05
Client Sample ID: PWN-CP-004
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 10/02/98

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/07/98
Analysis Date: 10/08/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 026F0101

Method: 8082\3510C
Run ID: R53713
Batch : WG47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248.....	ug/L	0.14		0.11	1.1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.11	1.1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	51.4	(13 - 154%)
Decachlorobiphenyl.....	75.9	(25 - 140%)

RL = Reporting Limit

OCT 12, 1998 10:02 ID: KEMRON ENVIRONMENTAL TEL NO: 740-373-4855 #1521 PAGE: 7/8

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810086-06
Client Sample ID: PWS-CP-004
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/02/98 1750
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L		ND	5.0	1	N/A	DLN	10/07/98	17:30	160.2
Turbidity.....	NTU	1.9		0.10	1	N/A	DLN	10/06/98	10:15	180.1

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810086-06
Client Sample ID: PWS-CP-004
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/02/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/07/98
Analysis Date: 10/08/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 027F0101

Method: 8082\3510C
Run ID: R53713
Batch : WG47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.11	1.1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.11	1.1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.11	1.1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.11	1.1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.11	1.1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.11	1.1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.11	1.1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	45.2	(13 - 154%)
Decachlorobiphenyl.....	53.6	(25 - 140%)

RL = Reporting Limit

Lab Sample ID: L9810177-01
Client Sample ID: PWN-CP-005
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/07/98 1730

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L	52		5.0	1	N/A	TJW	10/10/98	16:00	160.2

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810177 01
Client Sample ID: PWN-CP-005
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/07/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/10/98
Analysis Date: 10/13/98 Time.

Instrument: HP4
Analyst: ECL
Lab File ID: 054R0101

Method: 8082\3510C
Run ID: R54186
Batch : WG47494

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248.....	ug/L	0.49		0.10	1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2 4,5,6-Tetrachloro-m-xylene.....	69.0	(13 - 154%)
Decachlorobiphenyl.....	36.2	(25 - 140%)

RL - Reporting Limit

Sent by: KEMRON ON VALLEY LAB; 1 740 373 4835; 15 Oct 98 4:15PM;JOB 671;Page 4:3

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810177-02
Client Sample ID: PWS-CP-005
Site/Work ID: 97257L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/07/98 1715

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L	10		5.0	1	N/A	TJW	10/10/98	16:00	160.2

Product: 803-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810177-02
Client Sample ID: PW3-CP-005
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/07/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/10/98
Analysis Date: 10/13/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 055R0101

Method: 8082\3510C
Run ID: R54186
Batch : WG47494

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	53.0	(13 - 154%)
Decachlorobiphenyl.....	41.8	(25 - 140%)

RL - Reporting Limit

Sent By: KEMRON ON VALLEY LAB; 1 740 373 4835; 15 Oct 98 4:16PM;JOB 571;Page 5/5

Login #L9810392
October 22, 1998 09:58 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810392-01
Client Sample ID: PMN-CP-006
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/15/98 1600

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L		ND	5.0	1	N/A	DLP	10/19/98	14:45	160.2

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810392-01
Client Sample ID: PMN-CP-006
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 14:52

Instrument: HP10
Analyst: CDB
Lab File ID: 057R0101

Method: 8082\3510C
Run ID: R54593
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242.....	ug/L	0.044	J	0.10	1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	62.0	(13 - 154%)
Decachlorobiphenyl.....	30.7	(25 - 140%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 22 Oct 98 1:11AM;Job 111;Page 4/5

Login #L9810392
October 22, 1998 09:58 am

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810392-02
Client Sample ID: PWS-CP-006
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/15/98 1615

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Total Suspended Solids.....	mg/L	6.5		5.0	1	N/A	DLP	10/19/98	14:45	160.2

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810392-02
Client Sample ID: PWS-CP-006
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 15:27

Instrument: HP10
Analyst: CDB
Lab File ID: 058R0101

Method: 8082\3510C
Run ID: R54593
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016.....	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221.....	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232.....	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242.....	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248.....	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254.....	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260.....	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene.....	73.0	(13 - 154%)
Decachlorobiphenyl.....	41.8	(25 - 140%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 22 Oct 98 11:12AM;Job 111;Page 5/5

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: October 26, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray (TBD)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 22, 1998.

Sample ID: PWN-CP-007 Lab ID: 9810280-01 Collected: 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	6,000	µg/L	10/23/98	JA	APHA 2540 D	4,000
Liq/Liq Ext. for PCBs	10/23/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/23/98	DGK		0.60
PCB-1221	ND	µg/L	10/23/98	DGK		0.63
PCB-1232	ND	µg/L	10/23/98	DGK		0.60
PCB-1242	ND	µg/L	10/23/98	DGK		0.60
PCB-1248	ND	µg/L	10/23/98	DGK		0.87
PCB-1254	ND	µg/L	10/23/98	DGK		0.22
PCB-1260	ND	µg/L	10/23/98	DGK		0.12
Total PCBs	ND	µg/L	10/23/98	DGK		2.5

Sample ID: PWS-CP-007 Lab ID: 9810280-02 Collected: 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	6,000	µg/L	10/23/98	JA	APHA 2540 D	4,000
Liq/Liq Ext. for PCBs	10/23/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/23/98	DGK		0.11
PCB-1221	ND	µg/L	10/23/98	DGK		1.3
PCB-1232	ND	µg/L	10/23/98	DGK		0.11
PCB-1242	ND	µg/L	10/23/98	DGK		0.11
PCB-1248	ND	µg/L	10/23/98	DGK		0.41
PCB-1254	ND	µg/L	10/23/98	DGK		0.17
PCB-1260	ND	µg/L	10/23/98	DGK		0.12
Total PCBs	ND	µg/L	10/23/98	DGK		2.2

BDL = Below Detection Limit
ND = Not Detected

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 2, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray (TBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 30, 1998.

Sample ID: PWS-CP-008 Lab ID: 9810383-01 Collected: 10/29/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Suspended Solids	ND	µg/L	11/02/98	JA	APHA 2540 D	4,000
Liq/Liq Ext. for PCBs	10/31/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/31/98	DAH		0.20
PCB-1221	ND	µg/L	10/31/98	DAH		0.20
PCB-1232	ND	µg/L	10/31/98	DAH		0.20
PCB-1242	ND	µg/L	10/31/98	DAH		0.20
PCB-1248	ND	µg/L	10/31/98	DAH		0.20
PCB-1254	ND	µg/L	10/31/98	DAH		0.20
PCB-1260	ND	µg/L	10/31/98	DAH		0.20
Total PCBs	ND	µg/L	10/31/98	DAH		0.60

Sample ID: PWN-CP-008 Lab ID: 9810383-02 Collected: 10/29/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Suspended Solids	ND	µg/L	11/02/98	JA	APHA 2540 D	4,000
Liq/Liq Ext. for PCBs	10/31/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/31/98	HL		0.20
PCB-1221	ND	µg/L	10/31/98	HL		0.25
PCB-1232	ND	µg/L	10/31/98	HL		0.20
PCB-1242	ND	µg/L	10/31/98	HL		0.20
PCB-1248	ND	µg/L	10/31/98	HL		0.22
PCB-1254	ND	µg/L	10/31/98	HL		0.20
PCB-1260	ND	µg/L	10/31/98	HL		0.20
Total PCBs	ND	µg/L	10/31/98	HL		0.67

BDL = Below Detection Limit
ND = Not Detected

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: PWN-CP-008D **Lab ID: 9810383-03** **Collected: 10/29/98**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	ND	µg/L	11/02/98	JA	APHA 2540 D	4,000
Liq/Liq Ext. for PCBs	10/31/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/31/98	DAH		0.20
PCB-1221	ND	µg/L	10/31/98	DAH		0.27
PCB-1232	ND	µg/L	10/31/98	DAH		0.20
PCB-1242	ND	µg/L	10/31/98	DAH		0.20
PCB-1248	ND	µg/L	10/31/98	DAH		0.21
PCB-1254	ND	µg/L	10/31/98	DAH		0.21
PCB-1260	ND	µg/L	10/31/98	DAH		0.20
Total PCBs	ND	µg/L	10/31/98	DAH		0.69

BDL = Below Detection Limit
ND = Not Detected

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 10, 1998

ANALYSIS OF: Water Samples

REPORTED BY:

Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 5, 1998.

Sample ID: PWB-CP-009 Lab ID: 9811090-01 Collected: 11/04/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Suspended Solids	6,400	µg/L	11/06/98	JA	EPA 160.2	4,000
Liq/Liq Ext. for PCBs	11/05/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/05/98	DGK		0.11
PCB-1221	ND	µg/L	11/05/98	DGK		0.11
PCB-1232	ND	µg/L	11/05/98	DGK		0.11
PCB-1242	ND	µg/L	11/05/98	DGK		0.11
PCB-1248	ND	µg/L	11/05/98	DGK		0.11
PCB-1254	ND	µg/L	11/05/98	DGK		0.11
PCB-1260	ND	µg/L	11/05/98	DGK		0.11
Total PCBs	ND	µg/L	11/05/98	DGK		0.33

Sample ID: PWB-CP-009 Lab ID: 9811090-02 Collected: 11/04/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Suspended Solids	3,200	µg/L	11/06/98	JA	EPA 160.2	4,000
Liq/Liq Ext. for PCBs	11/05/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/05/98	DGK		0.11
PCB-1221	ND	µg/L	11/05/98	DGK		0.11
PCB-1232	ND	µg/L	11/05/98	DGK		0.11
PCB-1242	ND	µg/L	11/05/98	DGK		0.11
PCB-1248	ND	µg/L	11/05/98	DGK		0.11
PCB-1254	ND	µg/L	11/05/98	DGK		0.11
PCB-1260	ND	µg/L	11/05/98	DGK		0.11
Total PCBs	ND	µg/L	11/05/98	DGK		0.33

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 17, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 12, 1998.

Sample ID: PWS-CP-010 Lab ID: 9811162-01 Collected: 11/11/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	7,000	µg/L	11/13/98	JA	EPA 160.2	4,000
Liq/Liq Ext. for PCBs	11/15/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/13/98	DGK		0.22
PCB-1221	ND	µg/L	11/13/98	DGK		0.58
PCB-1232	ND	µg/L	11/13/98	DGK		0.22
PCB-1242	ND	µg/L	11/13/98	DGK		0.22
PCB-1248	ND	µg/L	11/13/98	DGK		0.20
PCB-1254	ND	µg/L	11/13/98	DGK		0.13
PCB-1260	ND	µg/L	11/13/98	DGK		0.18
Total PCBs	ND	µg/L	11/13/98	DGK		1.0

Sample ID: PWN-CP-010 Lab ID: 9811162-02 Collected: 11/11/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	5,000	µg/L	11/13/98	JA	EPA 160.2	4,000
Liq/Liq Ext. for PCBs	11/15/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/13/98	DGK		0.21
PCB-1221	ND	µg/L	11/13/98	DGK		0.72
PCB-1232	ND	µg/L	11/13/98	DGK		0.21
PCB-1242	ND	µg/L	11/13/98	DGK		0.21
PCB-1248	ND	µg/L	11/13/98	DGK		0.42
PCB-1254	ND	µg/L	11/13/98	DGK		0.11
PCB-1260	ND	µg/L	11/13/98	DGK		0.11
Total PCBs	ND	µg/L	11/13/98	DGK		1.3

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

Sample ID: PWN-CP-010 (MS) Lab ID: 9811162-03 Collected: 11/11/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Liq/Liq Ext. for PCBs	11/15/98	prep. date		DGK	EPA 3510	
Matrix Spike -- PCBs	11/15/98	prep. date		DGK		
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	N/A	% recovered	11/13/98	DGK		N/A
PCB-1221	N/A	% recovered	11/13/98	DGK		N/A
PCB-1232	N/A	% recovered	11/13/98	DGK		N/A
PCB-1242	N/A	% recovered	11/13/98	DGK		N/A
PCB-1248	N/A	% recovered	11/13/98	DGK		N/A
PCB-1254	74.0	% recovered	11/13/98	DGK		N/A
PCB-1260	N/A	% recovered	11/13/98	DGK		N/A
Total PCBs	N/A	% recovered	11/13/98	DGK		N/A

Sample ID: PWN-CP-010 (MSD) Lab ID: 9811162-04 Collected: 11/11/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Liq/Liq Ext. for PCBs	11/15/98	prep. date		DGK	EPA 3510	
Matrix Spike -- PCBs	11/15/98	prep. date		DGK		
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	N/A	% recovered	11/13/98	DGK		N/A
PCB-1221	N/A	% recovered	11/13/98	DGK		N/A
PCB-1232	N/A	% recovered	11/13/98	DGK		N/A
PCB-1242	N/A	% recovered	11/13/98	DGK		N/A
PCB-1248	N/A	% recovered	11/13/98	DGK		N/A
PCB-1254	43.7	% recovered	11/13/98	DGK		N/A
PCB-1260	N/A	% recovered	11/13/98	DGK		N/A
Total PCBs	N/A	% recovered	11/13/98	DGK		N/A

Sample ID: PWS-CP-010D Lab ID: 9811162-05 Collected: 11/11/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	ND	µg/L	11/13/98	JA	EPA 160.2	4,000
Liq/Liq Ext. for PCBs	11/15/98	prep. date		DGK	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	11/13/98	DGK		0.15
PCB-1221	ND	µg/L	11/13/98	DGK		0.57
PCB-1232	ND	µg/L	11/13/98	DGK		0.15
PCB-1242	ND	µg/L	11/13/98	DGK		0.15
PCB-1248	ND	µg/L	11/13/98	DGK		0.18
PCB-1254	ND	µg/L	11/13/98	DGK		0.11
PCB-1260	ND	µg/L	11/13/98	DGK		0.18
Total PCBs	ND	µg/L	11/13/98	DGK		0.93

ND = Not Detected
MDL = Method Dectection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 3, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray (TBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 1, 1998.

Sample ID: FW-WWD-01 Lab ID: 9812023-01 Collected: 12/01/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	12/02/98	date completed		WJC	EPA 3611	
Florisil Cleanup	12/02/98	date completed		WJC	EPA 3620	
Liq/Liq Ext. for PCBs	12/02/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	12/02/98	DGK		0.10
PCB-1221	ND	µg/L	12/02/98	DGK		0.10
PCB-1232	ND	µg/L	12/02/98	DGK		0.10
PCB-1242	ND	µg/L	12/02/98	DGK		0.10
PCB-1248	ND	µg/L	12/02/98	DGK		0.41
PCB-1254	ND	µg/L	12/02/98	DGK		0.10
PCB-1260	ND	µg/L	12/02/98	DGK		0.11
Total PCBs	ND	µg/L	12/02/98	DGK		0.62
Silica Gel Cleanup	12/02/98	date completed		WJC	EPA 3630	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 8, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 3, 1998.

Sample ID: PM-SP-01 Lab ID: 9812068-01 Collected: 12/03/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	16,000	µg/L	12/04/98	JA	EPA 160.2	4,000
Alumina Cleanup	12/03/98	date completed		WJC	EPA 3611	
Florisil Cleanup	12/03/98	date completed		WJC	EPA 3620	
Liq/Liq Ext. for PCBs	12/03/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	12/03/98	DGK		0.11
PCB-1221	ND	µg/L	12/03/98	DGK		0.11
PCB-1232	ND	µg/L	12/03/98	DGK		0.11
PCB-1242	ND	µg/L	12/03/98	DGK		0.11
PCB-1248	ND	µg/L	12/03/98	DGK		0.11
PCB-1254	ND	µg/L	12/03/98	DGK		0.11
PCB-1260	ND	µg/L	12/03/98	DGK		0.11
Total PCBs	ND	µg/L	12/03/98	DGK		0.33
Silica Gel Cleanup	12/03/98	date completed		WJC	EPA 3630	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

first phase diversion

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 24, 1998 - Revised December 28, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 19, 1998.

Sample ID: PWN-CP-011 Lab ID: 9812279-01 Collected: 12/19/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Suspended Solids	32	mg/L	12/21/98	MBR	EPA 160.2	4
Alumina Cleanup	12/23/98	date completed		WJC	EPA 3611	
Florisil Cleanup	12/23/98	date completed		WJC	EPA 3620	
Liq/Liq Ext. for PCBs	12/23/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	12/24/98	DGK		0.11
PCB-1221	ND	µg/L	12/24/98	DGK		0.13
PCB-1232	ND	µg/L	12/24/98	DGK		0.11
PCB-1242	ND	µg/L	12/24/98	DGK		0.11
PCB-1248	ND	µg/L	12/24/98	DGK		0.14
PCB-1254	ND	µg/L	12/24/98	DGK		0.10
PCB-1260	ND	µg/L	12/24/98	DGK		0.15
Total PCBs	N/A	µg/L	12/24/98	DGK		N/A
Silica Gel Cleanup	12/23/98	date completed		WJC	EPA 3630	

0.420

Sample ID: 121898-DIV-1807 Lab ID: 9812279-02 Collected: 12/19/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Alumina Cleanup	12/23/98	date completed		WJC	EPA 3611	
Florisil Cleanup	12/23/98	date completed		WJC	EPA 3620	
Liq/Liq Ext. for PCBs	12/23/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	12/24/98	DGK		0.10
PCB-1221	ND	µg/L	12/24/98	DGK		0.16
PCB-1232	ND	µg/L	12/24/98	DGK		0.10
PCB-1242	ND	µg/L	12/24/98	DGK		0.10
PCB-1248	ND	µg/L	12/24/98	DGK		0.12
PCB-1254	ND	µg/L	12/24/98	DGK		0.10
PCB-1260	ND	µg/L	12/24/98	DGK		0.14
Total PCBs	N/A	µg/L	12/24/98	DGK		N/A
Silica Gel Cleanup	12/23/98	date completed		WJC	EPA 3630	

0.420

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

LABORATORY REPORT

KAR Project No. : ***990264***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***01/28/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-012"***

Sampled By : *LOW of Roy F. Weston* **Date Received :** *1/21/1999*
Sample Date : *1/20/1999* **Sample Type :** *aqueous*
Sample Time : *1730* **KAR Sample No. :** *990264-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	8	mg/L	EPA 160.2	1/22/1999	PCH	
Prep, ECD	Completed		EPA 3510	1/22/1999	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclor 1242	0.13	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	1/26/1999	MSZ	
PCB Aroclors, total	0.13	ug/L	EPA 8082	1/26/1999	MSZ	

Turbidity = 8 ntu

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

LABORATORY REPORT

KAR Project No. : ***990331***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***02/03/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-013"***

Sampled By : ***OGN of Roy F. Weston*** **Date Received :** ***1/27/99***

Sample Date : ***1/22/99*** **Sample Type :** ***aqueous***

Sample Time : ***1600*** **KAR Sample No. :** ***990331-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	1/27/99	PDH	
Prep ECD	Completed		EPA 3510	1/28/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1242	0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclors total	0.05	ug/L	EPA 8082	2/1/99	MSZ	

Turbidity = 5 NTU

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***990368***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/03/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"012899-DIV-0955"***

Sampled By : ***OGN of Roy F. Weston, Inc.***

Sample Date : ***1/28/99***

Sample Time : ***0955***

Date Received : ***1/29/99***

Sample Type : ***aqueous***

KAR Sample No. : ***990368-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	768	mg/L	EPA 160.2	1/29/99	PCH	
Prep ECD	Completed		EPA 3510	2/1/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1242	0.12	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclors, total	0.12	ug/L	EPA 8082	2/1/99	MSZ	

Turbidity = 999

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***990368***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/03/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"012899-DAM-1145"***

Sampled By : ***OGN of Roy F. Weston, Inc.***
Sample Date : ***1/28/99***
Sample Time : ***1145***

Date Received : ***1/29/99***
Sample Type : ***aqueous***
KAR Sample No. : ***990368-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids total	20	mg/L	EPA 160.2	1/29/99	PDH	
Prep. SOD	Completed		EPA 3510	2/1/99	MJV	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1242	0.06	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclors total	0.06	ug/L	EPA 8082	2/1/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *990381*

Client: *Roy F. Weston, Inc.*

Date Reported : *02/03/99*

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : *"012999-DIV-1340"*

Sampled By : *OGN of Roy F. Weston, Inc.*

Sample Date : *1/29/99*

Sample Time : *1340*

Date Received : *1/29/99*

Sample Type : *aqueous*

KAR Sample No. : *990381-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	349	mg/L	EPA 160.2	2/1/99	PCH	
Prep ECD	Completed		EPA 3510	2/1/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1242	0.20	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclors, total	0.20	ug/L	EPA 8082	2/1/99	MSZ	

Turbidity = 0.22 NTU

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

LABORATORY REPORT

KAR Project No. : ***990381***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/03/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-014"***

Sampled By : *OGN of Roy F. Weston, Inc.*
Sample Date : *1/28/99*
Sample Time : *1800*

Date Received : *1/29/99*
Sample Type : *aqueous*
KAR Sample No. : *990381-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	10	mg/L	EPA 160.2	2/1/99	PCH	
Prep ECD	Completed		EPA 3510	2/1/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1242	0.06	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/1/99	MSZ	
PCB Aroclors, total	0.06	ug/L	EPA 8082	2/1/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***990432***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/09/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-015"***

Sampled By : *OGN of Roy F. Weston*
Sample Date : *2/1/1999*
Sample Time : *1635*

Date Received : *2/2/1999*
Sample Type : *aqueous*
KAR Sample No. : *990432-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	15	mg/L	EPA 160.2	2/4/1999	PCH	
Prep, ECD	Completed		EPA 3510	2/8/1999	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	2/8/1999	MSZ	

.05
+ .05
+ .05

0.15 U

This report may only be reproduced in full and not without the written consent of Roy F. Weston Inc.

LABORATORY REPORT

KAR Project No. : ***990432***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***02/09/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-016"***

Sampled By : *OGN of Roy F. Weston* **Date Received :** *2/2/1999*
Sample Date : *2/2/1999* **Sample Type :** *aqueous*
Sample Time : *1630* **KAR Sample No. :** *990432-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	40	mg/L	EPA 160.2	2/4/1999	PCH	
Prep, ECD	Completed		EPA 3510	2/8/1999	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1242	0.07	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclors, total	0.07	ug/L	EPA 8082	2/8/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***990481***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***02/09/99***

Project Description : ***Analysis of one aqueous sample from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-017"***

Sampled By : *OGN of Roy F. Weston, Inc.* **Date Received :** *2/4/1999*

Sample Date : *2/3/1999* **Sample Type :** *aqueous*

Sample Time : *1630* **KAR Sample No. :** *990481-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	5	mg/L	EPA 160.2	2/4/1999	PCH	
Prep, ECD	Completed		EPA 3510	2/8/1999	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/8/1999	MSZ	
PCB Aroclors, total	NA		EPA 8082	2/8/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : *Mr. Hal Blakemore*

KAR Project No. :	***990623***
Date Reported :	***02/22/99***
Date Activated :	***02/15/99***
Date Due :	***02/22/99***
Date Validated :	***02/22/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990623. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990623***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/22/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"PWN-CP-018"***

Sampled By : *OGN of Roy F. Weston, Inc.*
Sample Date : *2/11/1999*
Sample Time : *0930*

Date Received : *2/15/1999*
Sample Type : *aqueous*
KAR Sample No. : *990623-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	241	mg/L	EPA 160.2	2/15/1999	PCH	
Prep, ECD	Completed		EPA 3510	2/17/1999	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1242	0.11	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclors, total	0.11	ug/L	EPA 8082	2/19/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***990623***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***02/22/99***

Project Description : ***Analysis of two aqueous samples from Kalamazoo River Superfund.***

Sample ID : ***"021099-DIV-1642"***

Sampled By : *OGN of Roy F. Weston, Inc.*
Sample Date : *2/10/1999*
Sample Time : *1642*

Date Received : *2/15/1999*
Sample Type : *aqueous*
KAR Sample No. : *990623-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	726	mg/L	EPA 160.2	2/15/1999	PCH	
Prep, ECD	Completed		EPA 3510	2/17/1999	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1242	0.33	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1254	0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	2/19/1999	MSZ	
PCB Arocors, total	0.38	ug/L	EPA 8082	2/19/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI 49001

Attn : ***Mr. Hal Blakemore***

KAR Project No. :	***990990***
Date Reported :	***03/12/99***
Date Activated :	***03/08/99***
Date Due :	***03/15/99***
Date Validated :	***03/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-019).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 990990. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***990990***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-019).***

Sample ID : ***"PWN-CP-019"***

Sampled By : ***OGN of Roy F. Weston***

Sample Date : ***3/5/99***

Sample Time : ***1415***

Date Received : ***3/8/99***

Sample Type : ***aqueous***

KAR Sample No. : ***990990-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	3/8/99	PCH	
Prep, ECD	Completed		EPA 3510	3/11/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/12/99	MSZ	
DCB (pest/PCB surr spk)	54	% spike recovery	EPA 8082	3/12/99	MSZ	
TCMX (surr spk)	56	% spike recovery	EPA 8082	3/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***990990***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/12/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-019).***

Sample ID : ***Lab Method Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : ***3/3/99***

Sample Type : ***LMB***

KAR Sample No. : ***990990-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	3/8/99	PDH	
Prep, ECD	Completed		EPA 3510	3/11/99	MJY	
PCB Aroclor 1016	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1221	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1232	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1242	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1248	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1254	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclor 1260	<0.05	ug/L	EPA 8082	3/12/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/12/99	MSZ	
DCB (pest/PCB surr spk)	81	% spike recovery	EPA 8082	3/12/99	MSZ	
TCMX (surr spk)	42	% spike recovery	EPA 8082	3/12/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. : ***991127***
Date Reported : ***03/23/99***
Date Activated : ***03/17/99***
Date Due : ***03/24/99***
Date Validated : ***03/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-020).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991127. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***991127***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-020).***

Sample ID : ***"PWN-CP-020"***

Sampled By : ***OGN of Roy F. Weston***

Sample Date : ***3/16/99***

Sample Time : ***1700***

Date Received : ***3/17/99***

Sample Type : ***aqueous***

KAR Sample No. : ***991127-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	16	mg/L	EPA 160.2	3/18/99	POH	
Prep, ECD	Completed		EPA 3510	3/18/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/19/99	MSZ	
DCB (pest/PCB surr spk)	64	% spike recovery	EPA 8082	3/19/99	MSZ	
TCMX (surr spk)	38	% spike recovery	EPA 8082	3/19/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***991127***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***03/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-020).***

Sample ID : ***Lab Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***3/17/99***
Sample Type : ***LMB***
KAR Sample No. : ***991127-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	3/18/99	PCH	
Prep ECD	Completed		EPA 3510	3/18/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	3/19/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	3/19/99	MSZ	
DCB (pest/PCB surr spk)	64	% spike recovery	EPA 8082	3/19/99	MSZ	
TCMX (surr spk)	22	% spike recovery	EPA 8082	3/19/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***991747***
Date Reported :	***04/23/99***
Date Activated :	***04/20/99***
Date Due :	***04/27/99***
Date Validated :	***04/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-021).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 991747. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666

LABORATORY REPORT

KAR Project No. : *991747*

Client: *Roy F. Weston, Inc.*

Date Reported : *04/23/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-021).***

Sample ID : *"PWN-CP-021"*

Sampled By : *MA of Roy F. Weston*
Sample Date : *4/20/99*
Sample Time : *1345*

Date Received : *4/20/99*
Sample Type : *aqueous*
KAR Sample No. : *991747-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	150	mg/L	EPA 160.2	4/20/99	PCH	
Prep, ECD	Completed		EPA 3510	4/21/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1242	0.2	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Arcolors, total	0.2	ug/L	EPA 8082	4/22/99	MSZ	
DCB (pest/PCB surr spk)	78	% spike recovery	EPA 8082	4/22/99	MSZ	
TCMX (surr spk)	40	% spike recovery	EPA 8082	4/22/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***991747***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***04/23/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-021).***

Sample ID : ***Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : ***4/20/99***
Sample Type : ***aqueous***
KAR Sample No. : ***991747-02***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	4/20/99	POH	
Prep ECD	Completed		EPA 3510	4/21/99	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	4/22/99	MSZ	
PCB Aroclors, total	N/A		EPA 8082	4/22/99	MSZ	
DCB (pest/PCB surr spk)	70	% spike recovery	EPA 8082	4/22/99	MSZ	
TCMX (surr spk)	29	% spike recovery	EPA 8082	4/22/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : ***Mr. Shanta DeSilva***

KAR Project No. :	***992130***
Date Reported :	***05/13/99***
Date Activated :	***05/06/99***
Date Due :	***05/13/99***
Date Validated :	***05/13/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-022).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 992130. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted.

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : *992130*

Client: *Roy F. Weston, Inc.*

Date Reported : *05/13/99*

Project Description : *Analysis of one sample from Kalamazoo River Superfund (PWN-CP-022).*

Sample ID : *"PWN-CP-022"*

Sampled By : *NA of Roy F. Weston*
Sample Date : *5/6/99*
Sample Time : *1500*

Date Received : *5/6/99*
Sample Type : *aqueous*
KAR Sample No. : *992130-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	2420	mg/L	EPA 160.2	5/12/99	LAE	
Prep SOD	Completed		EPA 3510	5/10/99	VLY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/10/99	VSZ	
PCB Aroclors, total	NA		EPA 8082	5/10/99	VSZ	
DCB (pest/PCB surr spk)	59	% spike recovery	EPA 8082	5/10/99	VSZ	
TCMX (surr spk)	32	% spike recovery	EPA 8082	5/10/99	VSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *992130*

Client: *Roy F. Weston, Inc.*

Date Reported : *05/13/99*

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-022).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *5/6/99*

Sample Type : *aqueous*

KAR Sample No. : *992130-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	5/12/99	LAE	
Prep EOD	Completed		EPA 3510	5/10/99	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	5/10/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/10/99	MSZ	
DCB (pest/PCB surr spk)	85	% spike recovery	EPA 8082	5/10/99	MSZ	
TCMX (surr spk)	47	% spike recovery	EPA 8082	5/10/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR Laboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***993098***
Date Reported :	***07/07/99***
Date Activated :	***06/30/99***
Date Due :	***07/08/99***
Date Validated :	***07/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-023).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 993098. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories, Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient), then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***993098***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***07/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-023).***

Sample ID : ***"PWN-CP-023"***

Sampled By : *DME of Roy F. Weston* **Date Received :** *6/30/1999*

Sample Date : *6/29/1999* **Sample Type :** *aqueous*

Sample Time : *1800* **KAR Sample No. :** *993098-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	18	mg/L	EPA 160.2	7/1/1999	LAE	
Prep ECD	Completed		EPA 3510	7/1/1999	MJY	
PCB Aroclor 1016	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcolors, total	NA		EPA 8082	7/2/1999	MSZ	
DCB (pest/PCB surr spk)	92	% spike recovery	EPA 8082	7/2/1999	MSZ	
TCMX (surr spk)	51	% spike recovery	EPA 8082	7/2/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***993098***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***07/07/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-023).***

Sample ID : ***Blank***

Sampled By :

Sample Date :

Sample Time :

Date Received : *6/30/1999*

Sample Type : *aqueous*

KAR Sample No. : *993098-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<4	mg/L	EPA 160.2	7/1/1999	LAE	
Prep, ECD	Completed		EPA 3510	7/1/1999	MJY	
PCB Arcclor 1016	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclor 1221	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclor 1232	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclor 1242	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclor 1248	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclor 1254	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclor 1260	<0.1	ug/L	EPA 8082	7/2/1999	MSZ	
PCB Arcclors, total	NA		EPA 8082	7/2/1999	MSZ	
DCB (pest/PCB surr spk)	103	% spike recovery	EPA 8082	7/2/1999	MSZ	
TMX (surr spk)	34	% spike recovery	EPA 8082	7/2/1999	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 49001
Phone 616 381-9666
Fax 616 381-9698

Roy F. Weston, Inc.
1 Weston Way, Bldg. 4-2
West Chester, PA 19380

Attn : *Mr. Shanta DeSilva*

KAR Project No. :	***994322***
Date Reported :	***09/08/99***
Date Activated :	***09/01/99***
Date Due :	***09/09/99***
Date Validated :	***09/08/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-024).***

Dear Client,

Your laboratory data is presented to you in this report. Unless otherwise stated under the "Comments" heading, all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and the result represents the sample as it was received.

If you wish to contact us about this work please mention KAR Project No. 994322. To arrange additional sampling or testing please contact our Client Services Department. If you have a question regarding quality assurance please contact William Rauch.

Thank you for the opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

KAR Laboratories Inc. maintains Full Certification status for Bacteriology, Inorganics, Regulated Organics and Synthetic Organics through USEPA, Michigan Department of Public Health and Indiana State Department of Health. This report may only be reproduced in full and not without the written consent of **Roy F. Weston, Inc.**.

The information contained in this facsimile is intended only for the use of the above-named recipient. If the reader of this message is not the intended recipient (or an agent responsible for delivering it to the intended recipient) then you are hereby notified that you have received this document in error and that any review, distribution or copying of this message is strictly prohibited. If you have received this communication in error please accept our apologies, destroy all pages and tell us immediately at (616) 381-9666.

LABORATORY REPORT

KAR Project No. : ***994322***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***09/08/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-024).***

Sample ID : ***"PWN-CP-024"***

Sampled By : *DME of Roy F. Weston*
Sample Date : *9/1/1999*
Sample Time : *1600*

Date Received : *9/1/1999*
Sample Type : *aqueous*
KAR Sample No. : *994322-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<10	mg/L	EPA 160.2	9/2/1999	LAE	
Prep, SOD	Completed		EPA 3510	9/3/1999	SAS	
PCB Arcclor 1016	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1221	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1232	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1242	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1248	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1254	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1260	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclors, low level	See below		EPA 8082	9/7/1999	GMB	
PCB Arcclors, total	NA		EPA 8082	9/7/1999	GMB	
DCB (pest/PCB surr spk)	50	% spike recovery	EPA 8082	9/7/1999	GMB	
TCMX (surr spk)	28	% spike recovery	EPA 8082	9/7/1999	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***994322***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***09/08/99***

Project Description : ***Analysis of one sample from Kalamazoo River Superfund (PWN-CP-024).***

Sample ID : ***Laboratory Method Blank***

Sampled By :
Sample Date :
Sample Time :

Date Received : *9/1/1999*
Sample Type : *LMB*
KAR Sample No. : *994322-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Suspended solids, total	<10	mg/L	EPA 160.2	9/2/1999	LAE	
Prep SCD	Completed		EPA 3510	9/3/1999	SAS	
PCB Arcclor 1016	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1221	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1232	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1242	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1248	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1254	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclor 1260	<0.05	ug/L	EPA 8082	9/7/1999	GMB	
PCB Arcclors, low level	See below		EPA 8082	9/7/1999	GMB	
PCB Arcclors, total	NA		EPA 8082	9/7/1999	GMB	
DCB (pest/PCB surr spk)	82	% spike recovery	EPA 8082	9/7/1999	GMB	
TCMX (surr spk)	39	% spike recovery	EPA 8082	9/7/1999	GMB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc

APPENDIX F1

CHAIN OF CUSTODY
(FLOODPLAIN BACKFILL)

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: USACE
c/o Roy F. Weston, Inc
Attn: Hal Blakemore
Phone: (616)373-7008 Fax: (616)373-7010

Project Name: Allied Paper
Project #: DACA45-98-D-0009
P.O. #:
Sampled by: ☐ KAR ☐ Client Initials: HJB

Turnaround Time:
☐ 10-day ☐ Emergency (quote)
☒ 5-day (x 1.5)
☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd
cold: Y N ___ °C intact: Y N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: RCRA Metals	SVOC (Pest & PCB Extractable)	VOC (TPH Level)	VOC						KAR use only / Remarks
	BFCP0001	9/25/98	1600	Soil	glass	4oz	1	X									
	BFCP0001	9/25/98	1600	Soil	glass	4oz	2		X								
	BFGS0001	9/25/98	1600	Soil	glass	4oz	3			X							MeOH preserved 1714 9/25/98 (26.58g in 2 MeOH
	TB0001	9/25/98	1700	Water	glass	40ml	4				X						

Hal Manager Metals to RCRA and Cancel 1714 9/29/98 Brad Sample & 1820/1620 as per

KAR use only: Proj#: ___ Login: ___ Date: ___
c-of-c Y N
labels Y N
LODs Y N
contain Y N
headspace Y N
amount Y N
hold time Y N
rush cost Y N

Relinquished By:	Received By:	Date/Time:	Notes:
Hal Blakemore	Michael Dyer	9/25/98 1735	Samples were received by lab < 2 hrs. from time of sample d/AB.
Relinquished By:	Received By:	Date/Time:	

Kenton
ENVIRONMENTAL SERVICES

96704

CHAIN-OF-CUSTODY RECORD

Page _____ of _____.

Project Contact: [illegible]

Turn Around Requirements: 5-Day TAT

Project No.: Project Name: [illegible]

Sampler (print): S. Miller Signature: [signature]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol* CWA	Protocol* SW846	NUMBER OF SAMPLES	Hold	[illegible]	[illegible]	[illegible]	ADDITIONAL REQUIREMENTS
[illegible]	X		[illegible]	[illegible]	[illegible]		1		X			
[illegible]	X		[illegible]	[illegible]	↓		1			X		
[illegible]		X	[illegible]	[illegible]	↓		3				X	
TBLANK		X	10/8/98	1830	W		1				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	10-8-98	1830					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all comp samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

90708

Project Contact: Hal Blakemore

Turn Around Requirements: 24 Hour

Project No.: 112672

Project Name: Kalamazoo River Superfund

Sampler (print): Sean Pinnie

Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	VOC	ADDITIONAL REQUIREMENTS
BFG50002Fe		X	10/12/98	1815	Soil		3		X	
TP-0003			10/12/98	1820	Lt		1		X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Stephen Fischer	10/12/98	1815					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						24 [illegible] 7 [illegible]

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT SAMPLE -- CHAIN OF CUSTODY FORM

Project Name: WESTON - KALAMAZOO RIVER SUPERFUND

Name of Sampler: Laura Funk - Gopa Nair - Nat Blakeman

ESI #	Date	Time	Sample Matrix	Sample Identification	No. Cont.	Analyses Requested
	10-23-98	10:00	S	BFGS0003	1	PCB

Remarks:

24 Hour TAT

Backfill Sample

Samples Relinquished By:	Samples Transported By:	Samples Received By:
Affiliation: WESTON	Affiliation:	Affiliation: WMESI
Date: 10/23/98 Time: 1650	Date: Time:	Date: Time:

SAMPLE MATRIX CODES:

W = Water	WST = Waste
GW = Groundwater	S = Soil
SW = Surface Water	SL = Sludge
WW = Wastewater	O = Other

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: Hal Blakemore

Turn Around Requirements: 5 DAYS

Project No.:

Project Name: [illegible]

Sampler (print): [illegible] Vallance

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol OWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	[illegible]	[illegible]	[illegible]	ADDITIONAL REQUIREMENTS
BFCP004	X		10/30/98	1430	Soil		1		X				
BFCP004	X		10/30/98	1430	Soil		1			X			
BFCP004D	X		10/30/98	1430	Soil		1		X				
BFCP004D	X		10/30/98	1430	Soil		1			X			
BFGS004		X	10/30/98	1430	Soil		3				X		
BFGS004D		X	10/30/98	1430	Soil		3				X		
TB004		X	10/30/98	1700	Water		1				X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	10/30/98	1700					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Backfill Samples

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC

1. 2

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Contact:

Turn Around Requirements:

Project No.: Project Name:

Sampler (print): Signature:

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold			ADDITIONAL REQUIREMENTS
	BF-C1-005	X										
										X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - C[illegible] Pink - Field

WES[illegible] MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	[illegible]	RCRA + MI METALS													ADDITIONAL REQUIREMENTS
	[illegible]	X		[illegible]	[illegible]	[illegible]		2		X	X													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

White - Lab Yellow - Office Pink - Field

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, IN

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 2 of 3

Project Contact: TIM LAMOREAUX

Turn Around Requirements: 24 hrs

Project No.: Project Name:

Sampler (print): Signature:

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCB's	RCRA + MI Metals	ADDITIONAL REQUIREMENTS
	~~BT-CP-007~~	X										
	BT-CP-007	X		4/8/91	1655	Soil				X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	4/8/91	1710					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - Pink - Field

APPENDIX F2

FLOODPLAIN BACKFILL ANALYTICAL DATA

FLOODPLAIN BACKFILL ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed					
				PCB (mg/kg)	Metals	SVOC	VOC	TPH	Pesticides
BFCP0001	Floodplain Backfill	9/25/98	KAR	ND	x	x		x	x
BFGS0001	Floodplain Backfill	9/25/98	KAR				x	x	
TB0001	Trip Blank	9/25/98	KAR				x		
BFCP0002	Floodplain Backfill	10/8/98	Kemron	ND	x	x			x
BFGS0002Re	Floodplain Backfill	10/12/98	Kemron				x		
TB0003	Trip Blank	10/12/98	Kemron				x		
BFGS0003	Floodplain Backfill	10/23/98	Western Michigan	ND					x
BFCP004	Floodplain Backfill	10/30/98	Western Michigan	ND	x	x			x
BFGS004	Floodplain Backfill	10/30/99	Western Michigan				x		
BFCP004D	Floodplain Backfill	10/30/98	Western Michigan	ND	x	x			x
BFGS004D	Floodplain Backfill	10/30/98	Western Michigan				x		
TB004	Trip Blank	10/30/98	Western Michigan				x		
BFCP-005	Floodplain Backfill	11/24/98	Western Michigan	ND	x				x
BF-CP-006	Floodplain Backfill	1/29/99	Western Michigan	ND	x				x
BF-CP-007	Floodplain Backfill	4/8/99	Western Michigan	ND	x				x

x = analysis performed, see analytical data for results

LABORATORY REPORT

KAR Project No. : ***983942***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***10/02/98***

Project Description : ***Analysis of three samples from Allied Paper (DACA45-98-D-0004).***

Sample ID : ***"BFCP0001"*** RCRA+ / TOC

Sampled By : ***HJB of Roy F. Weston***

Sample Date : ***9/25/98***

Sample Time : ***1600***

Date Received : ***9/25/98***

Sample Type : ***soil***

KAR Sample No. : ***983942-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep_hg	Completed		EPA 747*	9/30/98	DBL	
Prep_metals	Completed		EPA 30xx,200.x	9/28/98	PML	
Arsenic, total	2	mg/kg dry sample	EPA 7060A	10/2/98	MTM	
Barium, total	10	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Cadmium, total	<0.5	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Chromium, total	6	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Copper, total	5	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Lead, total, by ICP	2	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Mercury, total, low level	<0.1	mg/kg dry sample	EPA 7470A	10/1/98	DBL	
Nickel, total	6	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Selenium, total	<0.5	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Silver, total	<0.5	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Zinc, total	14	mg/kg dry sample	EPA 6010B	9/30/98	MTM	
Dry weight solids	94.41	% by weight	SM(18) 2540B mod	9/30/98	PCH	
CLP TCL Acids	See below		EPA 8270	9/30/98	KTL	
CLP TCL Base-neutrals	See below		EPA 8270	9/30/98	KTL	
Prep_SV Acid/BN	Completed		EPA 3545	9/29/98	SAS	
1,2,4-Trichlorobenzene 8270	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
1,2-Dichlorobenzene by 8270	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
1,3-Dichlorobenzene by 8270	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
1,4-Dichlorobenzene by 8270	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,4,5-Trichlorophenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,4,6-Trichlorophenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,4-Dichlorophenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,4-Dimethylphenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,4-Dinitrophenol	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,4-Dinitrotoluene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2,6-Dinitrotoluene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2-Chloronaphthalene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2-Chlorophenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2-Methyl-4,6-dinitrophenol	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2-Methylnaphthalene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2-Methylphenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
2-Nitroaniline	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *983942*

Client: ***Roy F. Weston, Inc.***

Date Reported : *10/02/98*

Project Description : ***Analysis of three samples from Allied Paper (DACA45-98-D-0004).***

Sample ID : ***"BFCP0001"***

Sampled By : ***HJB of Roy F. Weston***

Sample Date : ***9/25/98***

Sample Time : ***1600***

Date Received : ***9/25/98***

Sample Type : *soil*

KAR Sample No. : ***983942-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
2-Nitrophenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
3,3'-Dichlorobenzidine	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	
3-Nitroaniline	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Bromophenyl phenyl ether	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Chloro-3-methylphenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Chloroaniline	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Chlorophenyl phenyl ether	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Methylphenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Nitroaniline	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	
4-Nitrophenol	<660	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Acenaphthene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Acenaphthylene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Anthracene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Benzo(a)anthracene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Benzo(a)pyrene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Benzo(b)fluoranthene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Benzo(ghi)perylene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Benzo(k)fluoranthene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Bis(2-chloroethoxy)methane	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Bis(2-chloroethyl)ether	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Bis(2-chloroisopropyl)ether	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Bis(2-ethylhexyl)phthalate	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Butylbenzyl phthalate	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Carbazole	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Chrysene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Di-N-butylphthalate	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Di-n-Octyl phthalate	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Dibenzo(ah)anthracene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Dibenzofuran	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Diethyl phthalate	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Dimethyl phthalate	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Fluoranthene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Fluorene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Hexachlorobenzene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***983942***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***10/02/98***

Project Description : ***Analysis of three samples from Alliet Paper (DACA45-98-D-0004).***

Sample ID : ***"BFCP0001"***

Sampled By : ***HJB of Roy F. Weston***

Sample Date : ***9/25/98***

Sample Time : ***1600***

Date Received : ***9/25/98***

Sample Type : ***soil***

KAR Sample No. : ***983942-01***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Hexachlorobutadiene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Hexachlorocyclopentadiene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Hexachloroethane	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Indeno(123cd)pyrene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Isophorone	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
N-Nitrosodi-n-propylamine	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
N-Nitrosodiphenylamine	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Naphthalene by Method 8270	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Nitrobenzene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Pentachlorophenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Phenanthrene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Phenol	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Pyrene	<330	ug/kg dry sample	EPA 8270	9/30/98	KTL	
Prior Poll test/PCB by ECD	See below		EPA 8081	10/1/98	MSZ	
Prep ECD	Completed		EPA 3545	9/29/98	SAS	
4,4'-DDD	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
4,4'-DDE	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
4,4'-DDT	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Aldrin	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Alpha-BHC	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Beta-BHC	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Chlordane	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Delta-BHC	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Dieldrin	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Endosulfan I	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Endosulfan II	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Endosulfan sulfate	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Endrin	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Endrin aldehyde	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Gamma-BHC	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Heptachlor	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Heptachlor epoxide	<20	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
Toxaphene	<200	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
PCB Arcclor 1016	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston Inc.

LABORATORY REPORT

KAR Project No. : *983942*

Client: *Roy F. Weston, Inc.*

Date Reported : *10/02/98*

Project Description : ***Analysis of three samples from Allied Paper (DACA45-98-D-0004).***

Sample ID : *"BFCP0001"*

Sampled By : *HJB of Roy F. Weston*

Sample Date : *9/25/98*

Sample Time : *1600*

Date Received : *9/25/98*

Sample Type : *soil*

KAR Sample No. : *983942-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/1/98	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***983942***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***10/02/98***

Project Description : ***Analysis of three samples from Allied Paper (DACA45-98-D-0004).***

Sample ID : ***"BFGS0001"***

Sampled By : *HJB of Roy F. Weston*
Sample Date : *9/25/98*
Sample Time : *1600*

Date Received : *9/25/98*
Sample Type : *soil*
KAR Sample No. : *983942-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Dry weight solids	89.58	% by weight	SM(18) 2540B mod	9/30/98	POH	
CLP TCL Volatiles	See below		EPA 8260	9/29/98	LAE	
Prep, VOA	Completed		EPA 5035	9/25/98	LAE	Sample extracted by client
1,1,1-Trichloroethane	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
1,1,2,2-Tetrachloroethane	<100	ug/kg dry sample	EPA 8260	9/29/98	LAE	
1,1,2-Trichloroethane	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
1,1-Dichloroethane	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
1,1-Dichloroethene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
1,2-Dichloroethane	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
1,2-Dichloropropane	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
2-Butanone	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
2-Hexanone	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
4-Methyl-2-pentanone	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Acetone	<500	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Benzene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Bromodichloromethane	<100	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Bromoform	<100	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Bromomethane	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Carbon disulfide	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Carbon tetrachloride	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Chlorobenzene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Chloroethane	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Chloroform	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Chloromethane	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Cis-1,2-Dichloroethene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Cis-1,3-Dichloropropene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Dibromochloromethane	<100	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Ethylbenzene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Methylene chloride	<250	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Styrene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Tetrachloroethene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Toluene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Trans-1,2-Dichloroethene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Trans-1,3-Dichloropropene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Trichloroethene	<50	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Vinyl chloride	<100	ug/kg dry sample	EPA 8260	9/29/98	LAE	
Xylenes	<100	ug/kg dry sample	EPA 8260	9/29/98	LAE	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : ***983942***

Client: ***Roy F. Weston, Inc.*** **Date Reported :** ***10/02/98***

Project Description : ***Analysis of three samples from Allied Paper (DACA45-98-D-0004).***

Sample ID : ***"TB0001"***

Sampled By : ***HJB of Roy F. Weston*** Trip Blank **Date Received :** ***9/25/98***

Sample Date : ***9/25/98*** **Sample Type :** ***aqueous***

Sample Time : ***1700*** **KAR Sample No. :** ***983942-03***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
CLP TCL Volatiles	See below		EPA 8260	10/1/98	DLB	
Prep VOA	Completed		EPA 5030	10/1/98	DLB	
1,1,1-Trichloroethane	<1	ug/L	EPA 8260	10/1/98	DLB	
1,1,2,2-Tetrachloroetnane	<1	ug/L	EPA 8260	10/1/98	DLB	
1,1,2-Trichloroethane	<1	ug/L	EPA 8260	10/1/98	DLB	
1,1-Dichloroethene	<1	ug/L	EPA 8260	10/1/98	DLB	
1,1-Dichloroethene	<1	ug/L	EPA 8260	10/1/98	DLB	
1,2-Dichloroethane	<1	ug/L	EPA 8260	10/1/98	DLB	
1,2-Dichloropropane	<1	ug/L	EPA 8260	10/1/98	DLB	
2-Butanone	<20	ug/L	EPA 8260	10/1/98	DLB	
2-Hexanone	<20	ug/L	EPA 8260	10/1/98	DLB	
4-Methyl-2-pentanone	<20	ug/L	EPA 8260	10/1/98	DLB	
Acetone	<50	ug/L	EPA 8260	10/1/98	DLB	
Benzene	<1	ug/L	EPA 8260	10/1/98	DLB	
Bromodichloromethane	<1	ug/L	EPA 8260	10/1/98	DLB	
Bromoform	<1	ug/L	EPA 8260	10/1/98	DLB	
Bromomethane	<1	ug/L	EPA 8260	10/1/98	DLB	
Carbon disulfide	<1	ug/L	EPA 8260	10/1/98	DLB	
Carbon tetrachloride	<1	ug/L	EPA 8260	10/1/98	DLB	
Chlorobenzene	<1	ug/L	EPA 8260	10/1/98	DLB	
Chloroethane	<1	ug/L	EPA 8260	10/1/98	DLB	
Chloroform	<1	ug/L	EPA 8260	10/1/98	DLB	
Chloromethane	<1	ug/L	EPA 8260	10/1/98	DLB	
Cis-1,2-Dichloroethene	<1	ug/L	EPA 8260	10/1/98	DLB	
Cis-1,3-Dichloropropene	<1	ug/L	EPA 8260	10/1/98	DLB	
Dibromochloromethane	<1	ug/L	EPA 8260	10/1/98	DLB	
Ethylbenzene	<1	ug/L	EPA 8260	10/1/98	DLB	
Methylene chloride	<1	ug/L	EPA 8260	10/1/98	DLB	
Styrene	<1	ug/L	EPA 8260	10/1/98	DLB	
Tetrachloroethene	<1	ug/L	EPA 8260	10/1/98	DLB	
Toluene	<1	ug/L	EPA 8260	10/1/98	DLB	
Trans-1,2-Dichloroethene	<1	ug/L	EPA 8260	10/1/98	DLB	
Trans-1,3-Dichloropropene	<1	ug/L	EPA 8260	10/1/98	DLB	
Trichloroethene	<1	ug/L	EPA 8260	10/1/98	DLB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : ***983942***

Client: ***Roy F. Weston, Inc.***

Date Reported : ***10/02/98***

Project Description : ***Analysis of three samples from Allied Paper (DACA45-98-D-0004).***

Sample ID : ***"TB0001"***

Sampled By : ***HJB of Roy F. Weston***
Sample Date : ***9/25/98***
Sample Time : ***1700***

Date Received : ***9/25/98***
Sample Type : ***aqueous***
KAR Sample No. : ***983942-03***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Vinyl chloride	<1	ug/L	EPA 8260	10/1/98	CLB	
Xylenes	<1	ug/L	EPA 8260	10/1/98	CLB	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

PO Number:
Account Number: WESTON-472

Login #: L9810236
Report Date: 10/19/98
Work ID: 97267L/KALAMAZOO RIVRR
Date Received: 10/09/98

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810236-01	BFCP0002	L9810236-03	BFGS0002RE
L9810236-04	TB0003		

All results on solids/sludges are reported on a dry weight basis, where applicable unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810236-01
Client Sample ID: BFCP0002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/08/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 95

TCLP Extract Date: N/A
Extract Date: 10/15/98
Analysis Date: 10/16/98 Time: 12:47

Instrument: HP10
Analyst: CDB
Lab File ID: 054R0101

Method: 8082\3550
Run ID: R54367
Batch : WG47809

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	17	1
11104-28-2	Aroclor-1221	ug/kg		ND	17	1
11141-16-5	Aroclor-1232	ug/kg		ND	17	1
53469-21-9	Aroclor-1242	ug/kg		ND	17	1
12672-29-6	Aroclor-1248	ug/kg		ND	17	1
11097-69-1	Aroclor-1254	ug/kg		ND	35	1
11096-82-5	Aroclor-1260	ug/kg		ND	35	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	78.6	(29 - 133%)
Decachlorobiphenyl	84.7	(30 - 173%)

Lab Sample ID: L9810236-01
Client Sample ID: BFCP0002
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/08/98 1800

% Solid: 95
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	95		1.0	1	N/A	DKM	10/13/98	12:05	D2216-90
Silver, Total	mg/kg		ND	2.1	1	N/A	JYH	10/13/98	17:31	6010B\3050A
Arsenic, Total	mg/kg	1.8		0.53	1	N/A	KHA	10/16/98	12:24	6010B\3050A
Barium, Total	mg/kg	36		0.53	1	N/A	JYH	10/13/98	17:31	6010B\3050A
Cadmium, Total	mg/kg		ND	0.53	1	N/A	JYH	10/13/98	17:31	6010B\3050A
Chromium, Total	mg/kg	2.3		1.1	1	N/A	JYH	10/13/98	17:31	6010B\3050A
Copper, Total	mg/kg	1.8		1.1	1	N/A	JYH	10/13/98	17:31	6010B\3050A
Mercury, Total	mg/kg		ND	0.11	1	N/A	KRA	10/12/98	14:52	7471A\7471A
Nickel, Total	mg/kg	2.2		2.1	1	N/A	JYH	10/13/98	17:31	6010B\3050A
Lead, Total	mg/kg	2.0		0.26	1	N/A	KHA	10/16/98	12:24	6010B\3050A
Selenium, Total	mg/kg		ND	0.21	1	N/A	RSS	10/14/98	15:15	7740
Zinc, Total	mg/kg	7.4		1.1	1	N/A	JYH	10/13/98	17:31	6010B\3050A

RL = Reporting Limit

Login #L9810236
October 19, 1998 04:30 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810236-01
Client Sample ID: BPCP0002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/08/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 95

TCLP Extract Date: N/A
Extract Date: 10/11/98
Analysis Date: 10/12/98 Time:

Instrument: HP9
Analyst: KCL
Lab File ID: 663

Method: 8081A\3550B
Run ID: R54118
Batch : WG47479

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/kg		ND	1.7	1
319-85-7	beta-BHC	ug/kg		ND	1.7	1
319-86-8	delta-BHC	ug/kg		ND	1.7	1
58-89-9	gamma-BHC (Lindane)	ug/kg		ND	1.7	1
76-44-8	Heptachlor	ug/kg		ND	1.7	1
309-00-2	Aldrin	ug/kg		ND	1.7	1
1024-57-3	Heptachlor epoxide	ug/kg		ND	1.7	1
959-98-8	Endosulfan I	ug/kg		ND	1.7	1
60-57-1	Dieldrin	ug/kg		ND	3.5	1
72-55-9	4,4'-DDE	ug/kg		ND	3.5	1
72-20-8	Endrin	ug/kg		ND	3.5	1
33213-65-9	Endosulfan II	ug/kg		ND	3.5	1
72-54-8	4,4'-DDD	ug/kg		ND	3.5	1
1031-07-8	Endosulfan sulfate	ug/kg		ND	3.5	1
50-29-3	4,4'-DDT	ug/kg		ND	3.5	1
72-43-5	Methoxychlor	ug/kg		ND	17	1
53494-70-5	Endrin ketone	ug/kg		ND	3.5	1
7421-93-4	Endrin aldehyde	ug/kg		ND	3.5	1
5103-71-9	alpha Chlordane	ug/kg		ND	1.7	1
5103-74-2	gamma Chlordane	ug/kg		ND	1.7	1
8001-35-2	Toxaphene	ug/kg		ND	35	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	60.6	(29 - 133%)
Decachlorobiphenyl	65.5	(30 - 173%)

RL - Reporting Limit

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810236-01
Client Sample ID: BFCP0002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/08/98

Sample Weight: N/A
Extract. Volume: N/A
% Solid: 95

TCLP Extract Date: N/A
Extract Date: 10/12/98
Analysis Date: 10/15/98 Time: 03:13

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8050

Method: 8270C\3550B
Run ID: R54244
Batch : WG47554

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/kg		ND	170	1
111-44-4	Bis(2-Chloroethyl)ether	ug/kg		ND	170	1
95-57-8	2-Chlorophenol	ug/kg		ND	170	1
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	170	1
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	170	1
100-51-6	Benzyl alcohol	ug/kg		ND	170	1
95-50-1	1,2 Dichlorobenzene	ug/kg		ND	170	1
95-48-7	2-Methylphenol	ug/kg		ND	170	1
108-39-4	3-Methylphenol	ug/kg		ND	170	1
108-60-1	bis(2-Chloroisopropyl)ether	ug/kg		ND	170	1
106-44-5	4-Methylphenol	ug/kg		ND	170	1
67-72-1	Hexachloroethane	ug/kg		ND	170	1
98-95-3	Nitrobenzene	ug/kg		ND	170	1
78-59-1	Isophorone	ug/kg		ND	170	1
88-75-5	2-Nitrophenol	ug/kg		ND	170	1
105-67-9	2,4-Dimethylphenol	ug/kg		ND	170	1
65-85-0	Benzoic acid	ug/kg		ND	870	1
111-91-1	Bis(2-Chloroethoxy)Methane	ug/kg		ND	170	1
120-83-2	2,4-Dichlorophenol	ug/kg		ND	170	1
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	170	1
91-20-3	Naphthalene	ug/kg		ND	170	1
106-47-8	4-Chloroaniline	ug/kg		ND	170	1
87-68-3	Hexachlorobutadiene	ug/kg		ND	170	1
59-50-7	4-Chloro-3-methylphenol	ug/kg		ND	170	1
91-57-6	2-Methylnaphthalene	ug/kg		ND	170	1
77-47-4	Hexachlorocyclopentadiene	ug/kg		ND	170	1
88-06-2	2,4,6-Trichlorophenol	ug/kg		ND	170	1
95-95-4	2,4,5-Trichlorophenol	ug/kg		ND	870	1
91-58-7	2-Chloronaphthalene	ug/kg		ND	170	1
88-74-4	2-Nitroaniline	ug/kg		ND	870	1
131-11-3	Dimethylphthalate	ug/kg		ND	170	1
208-96-8	Acenaphthylene	ug/kg		ND	170	1
606-20-2	2,6-Dinitrotoluene	ug/kg		ND	170	1
99-09-2	3-Nitroaniline	ug/kg		ND	870	1
83-32-9	Acenaphthene	ug/kg		ND	170	1
51-28-5	2,4-Dinitrophenol	ug/kg		ND	870	1
100-02-7	4-Nitrophenol	ug/kg		ND	870	1
132-64-9	Dibenzofuran	ug/kg		ND	170	1
121-14-2	2,4-Dinitrotoluene	ug/kg		ND	170	1

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 19 Oct 98 4:56PM;JOB 680;Page 4/9

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810236-01
Client Sample ID: BFCP0002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil Type: N/A
COC Info: N/A
Date Collected: 10/08/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 95

TCLP Extract Date: N/A
Extract Date: 10/12/98
Analysis Date: 10/15/98 Time: 03:13

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8050

Method: 8270C\3550B
Run ID: R54244
Batch : WG47554

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
84-66-2	Diethylphthalate	ug/kg		ND	170	1
7005-72-3	4-Chlorophenyl-phenyl ether	ug/kg		ND	170	1
86-73-7	Fluorene	ug/kg		ND	170	1
100-01-6	4-Nitroaniline	ug/kg		ND	870	1
534-52-1	4,6-Dinitro-2-methylphenol	ug/kg		ND	870	1
86-30-6	N-Nitrosodiphenylamine	ug/kg		ND	170	1
101-55-3	4-Bromophenyl-phenylether	ug/kg		ND	170	1
118-74-1	Hexachlorobenzene	ug/kg		ND	170	1
87-86-5	Pentachlorophenol	ug/kg		ND	870	1
85-01-8	Phenanthrene	ug/kg		ND	170	1
120-12-7	Anthracene	ug/kg		ND	170	1
84-74-2	Di-N-Butylphthalate	ug/kg		ND	170	1
206-44-0	Fluoranthene	ug/kg		ND	170	1
129-00-0	Pyrene	ug/kg		ND	170	1
85-68-7	Butylbenzylphthalate	ug/kg		ND	170	1
91-94-1	3,3'-Dichlorobenzidine	ug/kg		ND	350	1
56-55-3	Benzo(a)anthracene	ug/kg		ND	170	1
218-01-9	Chrysene	ug/kg		ND	170	1
117-81-7	bis(2-Ethylhexyl)phthalate	ug/kg		ND	170	1
117-84-0	Di-n-octylphthalate	ug/kg		ND	170	1
205-99-2	Benzo(b)fluoranthene	ug/kg		ND	170	1
207-08-9	Benzo(k)fluoranthene	ug/kg		ND	170	1
50-32-8	Benzo(a)pyrene	ug/kg		ND	170	1
193-39-5	Indeno(1,2,3-cd)pyrene	ug/kg		ND	170	1
53-70-3	Dibenzo(a,h)Anthracene	ug/kg		ND	170	1
191-24-2	Benzo(g,h,i)Perylene	ug/kg		ND	170	1
621-64-7	N-Nitroso-di-n-propylamine	ug/kg		ND	170	1

SURROGATES- In Percent Recovery:

2-Fluorophenol	49.8	(25 - 121%)
Phenol-d5	52.0	(24 - 113%)
Nitrobenzene-d5	53.3	(23 - 120%)
2-Fluorobiphenyl	54.3	(30 - 115%)
2,4,6-Tribromophenol	61.0	(19 - 122%)
p-Terphenyl-d14	99.2	(18 - 137%)

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 19 Oct 98 4:57PM;JOB 980;Page 5/9

Product: 8260 - Volatile Organics

Lab Sample ID: L9810236-03
Client Sample ID: BFGS0002RE
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 10/12/98

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/14/98 Time: 13:52

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26776

Method: 8260B
Run ID: R54269
Batch : WG47730

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/kg	12	J	120	1.2
71-43-2	Benzene	ug/kg		ND	6.0	1.2
108-86-1	Bromobenzene	ug/kg		ND	6.0	1.2
74-97-5	Bromochloromethane	ug/kg		ND	6.0	1.2
75-27-4	Bromodichloromethane	ug/kg		ND	6.0	1.2
75-25-2	Bromoform	ug/kg		ND	6.0	1.2
74-83-9	Bromomethane	ug/kg		ND	12	1.2
78-93-3	2-Butanone	ug/kg		ND	120	1.2
104-51-8	n-Butylbenzene	ug/kg		ND	6.0	1.2
135-98-8	sec-Butylbenzene	ug/kg		ND	6.0	1.2
98-06-6	tert-Butylbenzene	ug/kg		ND	6.0	1.2
75-15-0	Carbon disulfide	ug/kg		ND	6.0	1.2
56-23-5	Carbon tetrachloride	ug/kg		ND	6.0	1.2
108-90-7	Chlorobenzene	ug/kg		ND	6.0	1.2
124-48-1	Chlorodibromomethane	ug/kg		ND	6.0	1.2
75-00-3	Chloroethane	ug/kg		ND	12	1.2
110-75-8	2-Chloroethyl vinyl ether	ug/kg		ND	12	1.2
67-66-3	Chloroform	ug/kg		ND	6.0	1.2
74-87-3	Chloromethane	ug/kg		ND	12	1.2
95-49-8	2-Chlorotoluene	ug/kg		ND	6.0	1.2
106-43-4	4-Chlorotoluene	ug/kg		ND	6.0	1.2
96-12-8	1,2-Dibromo-3-chloropropane	ug/kg		ND	6.0	1.2
106-93-4	1,2-Dibromoethane	ug/kg		ND	6.0	1.2
74-95-3	Dibromomethane	ug/kg		ND	6.0	1.2
95-50-1	1,2-Dichlorobenzene	ug/kg		ND	6.0	1.2
541-73-1	1,3-Dichlorobenzene	ug/kg		ND	6.0	1.2
106-46-7	1,4-Dichlorobenzene	ug/kg		ND	6.0	1.2
75-71-8	Dichlorodifluoromethane	ug/kg		ND	12	1.2
75-34-3	1,1-Dichloroethane	ug/kg		ND	6.0	1.2
107-06-2	1,2-Dichloroethane	ug/kg		ND	6.0	1.2
75-35-4	1,1-Dichloroethene	ug/kg		ND	6.0	1.2
156-59-2	cis-1,2-Dichloroethene	ug/kg		ND	6.0	1.2
156-60-5	trans-1,2-Dichloroethene	ug/kg		ND	6.0	1.2
78-87-5	1,2-Dichloropropane	ug/kg		ND	6.0	1.2
142-28-9	1,3-Dichloropropane	ug/kg		ND	6.0	1.2
594-20-7	2,2-Dichloropropane	ug/kg		ND	6.0	1.2
10061-01-5	cis-1,3-Dichloropropene	ug/kg		ND	6.0	1.2
10061-02-6	trans-1,3-Dichloropropene	ug/kg		ND	6.0	1.2
563-58-6	1,1-Dichloropropene	ug/kg		ND	6.0	1.2

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 19 Oct 98 4:58PM;JOB 980;Page 6/9

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810236-03
Client Sample ID: BFGS0002RE
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/12/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/14/98 Time: 13:52

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WR26776

Method: 8260B
Run ID: R54269
Batch : WG47730

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/kg		ND	6.0	1.2
591-78-6	2-Hexanone	ug/kg		ND	12	1.2
87-68-3	Hexachlorobutadiene	ug/kg		ND	6.0	1.2
98-82-8	Isopropylbenzene	ug/kg		ND	6.0	1.2
99-87-6	p-Isopropyltoluene	ug/kg		ND	6.0	1.2
108-10-1	4-Methyl-2-pentanone	ug/kg		ND	12	1.2
75-09-2	Methylene chloride	ug/kg	1.5	J	6.0	1.2
91-20-3	Naphthalene	ug/kg		ND	12	1.2
103-65-1	n-Propylbenzene	ug/kg		ND	6.0	1.2
100-42-5	Styrene	ug/kg		ND	6.0	1.2
630-20-6	1,1,1,2-Tetrachloroethane	ug/kg		ND	6.0	1.2
79-34-5	1,1,2,2-Tetrachloroethane	ug/kg		ND	6.0	1.2
127-18-4	Tetrachloroethene	ug/kg		ND	6.0	1.2
108-88-3	Toluene	ug/kg	0.30	J	6.0	1.2
87-61-6	1,2,3-Trichlorobenzene	ug/kg		ND	6.0	1.2
120-82-1	1,2,4-Trichlorobenzene	ug/kg		ND	6.0	1.2
71-55-6	1,1,1-Trichloroethane	ug/kg		ND	6.0	1.2
79-00-5	1,1,2-Trichloroethane	ug/kg		ND	6.0	1.2
79-01-6	Trichloroethene	ug/kg		ND	6.0	1.2
75-69-4	Trichlorofluoromethane	ug/kg		ND	12	1.2
96-18-4	1,2,3-Trichloropropane	ug/kg		ND	6.0	1.2
95-63-6	1,2,4-Trimethylbenzene	ug/kg		ND	6.0	1.2
108-67-8	1,3,5-Trimethylbenzene	ug/kg		ND	6.0	1.2
108-05-4	Vinyl acetate	ug/kg		ND	12	1.2
75-01-4	Vinyl chloride	ug/kg		ND	12	1.2
95-47-6	o-Xylene	ug/kg		ND	6.0	1.2
108-38-3	m-Xylene	ug/kg		ND	6.0	1.2
106-42-3	p-Xylene	ug/kg		ND	6.0	1.2

SURROGATES- In Percent Recovery:

Dibromofluoromethane	92.3	(80 - 120%)
1,2-Dichloroethane-d4	92.9	(80 - 120%)
Toluene-d8	93.3	(81 - 117%)
4-Bromofluorobenzene	90.6	(74 - 121%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 19 Oct 98 5:00PM;Job 980;Page 7/9

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810236-04
Client Sample ID: TB0003
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/12/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/16/98 Time: 11:47

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26825

Method: 8260B
Run ID: R54419
Batch : WG47862

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L	3.4	J	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L	3.8	J	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 19 Oct 98 5:0 PM;oo 98J;Page 8/9

Product: 8260 - Volatile Organics

Lab Sample ID: L9810236-04
Client Sample ID: TB0003
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/12/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/16/98 Time: 11:47

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26825

Method: 8260B
Run ID: R54419
Batch : WG47862

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L	2.1	J	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L	0.49	J	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L	1.3	J	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES - In Percent Recovery:

Dibromofluoromethane	95.6	(86 - 118%)
1,2-Dichloroethane d4	94.0	(80 - 120%)
Toluene-d8	101	(88 - 110%)
4-Bromofluorobenzene	103	(86 - 115%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1-740 373 4835; 19 Oct 98 5:02PM;Job 980;Page 9/9

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmes.com
Internet: http://www.wmcsi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: October 24, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray (TBE)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 13, 1998.

Sample ID: RFG50003 Lab ID: 9810295-01 Collected: 10/23/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	10/23/98	date completed		DGK	EPA 3665	
Florisil Cleanup	10/23/98	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	10/23/98	DGK		330
PCB-1221	ND	µg/kg dry wt	10/23/98	DGK		330
PCB-1232	ND	µg/kg dry wt	10/23/98	DGK		330
PCB-1242	ND	µg/kg dry wt	10/23/98	DGK		330
PCB-1248	ND	µg/kg dry wt	10/23/98	DGK		330
PCB-1254	ND	µg/kg dry wt	10/23/98	DGK		330
PCB-1260	ND	µg/kg dry wt	10/23/98	DGK		330
Total PCBs	ND	µg/kg dry wt	10/23/98	DGK		1,000
Prep by Sonication	10/23/98	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	10/23/98	date completed		DGK	EPA 3630	
Sulfur Cleanup	10/23/98	date completed		DGK	EPA 3660	
Total Solids	96.1	% of sample	10/23/98	HL	APHA 2540 B.	

BDL = Below Detection Limit
ND = Not Detected

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9253
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 5, 1998

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 30, 1998.

Sample ID: BFCP004 Lab ID: 9810384-01 Collected: 10/30/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	94.2	% of sample	11/03/98	JA	APHA 2540 B.	N/A
Arsenic	3,100	µg/kg dry wt.	11/02/98	JA	EPA 7060	19
Barium	14,000	µg/kg dry wt.	11/02/98	JA	EPA 6010	9.5
Cadmium	17	µg/kg dry wt.	11/03/98	JA	EPA 7131	0.19
Chromium	4,800	µg/kg dry wt.	11/02/98	JA	EPA 6010	9.5
Copper	5,300	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Lead	3,800	µg/kg dry wt.	11/02/98	JA	EPA 6010	95
Mercury	ND	µg/kg dry wt.	11/03/98	MBR	EPA 7470	0.2
Metals Prep, Solid	11/02/98	date digested		JA	EPA 3050	
Nickel	4,800	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Selenium	ND	µg/kg dry wt.	11/02/98	JA	EPA 7740	19
Silver	ND	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Zinc	16,000	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Acid/Permanganate Cleanup	10/30/98	date completed		DGK	EPA 3665	
Base/Neutrals & Acid Ext.					EPA 8270	
bis(2-chloroethoxy)methane	ND	µg/kg dry wt	11/03/98	DAH		25
bis(2-chloroethyl)ether	ND	µg/kg dry wt	11/03/98	DAH		25
bis(2-chloroisopropyl)ether	ND	µg/kg dry wt	11/03/98	DAH		25
4-bromophenylphenyl ether	ND	µg/kg dry wt	11/03/98	DAH		25
4-chlorophenylphenyl ether	ND	µg/kg dry wt	11/03/98	DAH		25
bis(2-ethylhexyl)phthalate	ND	µg/kg dry wt	11/03/98	DAH		40
Butylbenzylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
Diethylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
Dimethylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
Di-n-butylphthalate	ND	µg/kg dry wt	11/03/98	DAH		130
Di-n-octylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
N-nitrosodimethylamine	ND	µg/kg dry wt	11/03/98	DAH		25
N-nitroso-Di-n-propylamine	ND	µg/kg dry wt	11/03/98	DAH		25
N-nitrosodiphenylamine	ND	µg/kg dry wt	11/03/98	DAH		25
1,2-diphenylhydrazine	ND	µg/kg dry wt	11/03/98	DAH		25
2-chloronaphthalene	ND	µg/kg dry wt	11/03/98	DAH		25
1,2-dichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
1,3-dichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
1,4-dichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
2,4-dinitrotoluene	ND	µg/kg dry wt	11/03/98	DAH		25
2,6-dinitrotoluene	ND	µg/kg dry wt	11/03/98	DAH		25
Hexachlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
Hexachlorobutadiene	ND	µg/kg dry wt	11/03/98	DAH		25

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: EPCP004 **Lab ID: 9810384-01** **Collected: 10/30/98**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Base/Neutrals & Acid Ext.					EPA 8270	
Hexachlorocyclopentadiene	ND	µg/kg dry wt	11/03/98	DAH		120
Hexachloroethane	ND	µg/kg dry wt	11/03/98	DAH		25
Isophorone	ND	µg/kg dry wt	11/03/98	DAH		25
Nitrobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
1,2,4-trichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzidine	ND	µg/kg dry wt	11/03/98	DAH		120
3,3'-dichlorobenzidine	ND	µg/kg dry wt	11/03/98	DAH		120
Acenaphthene	ND	µg/kg dry wt	11/03/98	DAH		25
Acenaphthylene	ND	µg/kg dry wt	11/03/98	DAH		25
Anthracene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(a)anthracene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(a)pyrene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(b)fluoranthene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(g,h,i)perylene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(k)fluoranthene	ND	µg/kg dry wt	11/03/98	DAH		25
Chrysene	ND	µg/kg dry wt	11/03/98	DAH		25
Dibenzo(a,h)anthracene	ND	µg/kg dry wt	11/03/98	DAH		25
Fluoranthene	ND	µg/kg dry wt	11/03/98	DAH		25
Fluorene	ND	µg/kg dry wt	11/03/98	DAH		25
Indeno(1,2,3-cd)pyrene	ND	µg/kg dry wt	11/03/98	DAH		25
Naphthalene	ND	µg/kg dry wt	11/03/98	DAH		25
Phenanthrene	ND	µg/kg dry wt	11/03/98	DAH		25
Pyrene	ND	µg/kg dry wt	11/03/98	DAH		25
Phenol	ND	µg/kg dry wt	11/03/98	DAH		25
2-chlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
2,4-dichlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
2,4,6-trichlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
Pentachlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
4-chloro-3-methylphenol	ND	µg/kg dry wt	11/03/98	DAH		25
2-nitrophenol	ND	µg/kg dry wt	11/03/98	DAH		25
4-nitrophenol	ND	µg/kg dry wt	11/03/98	DAH		120
2,4-dinitrophenol	ND	µg/kg dry wt	11/03/98	DAH		120
4,6-dinitro-2-methylphenol	ND	µg/kg dry wt	11/03/98	DAH		120
2,4-dimethylphenol	ND	µg/kg dry wt	11/03/98	DAH		25
EPA Pesticides					EPA 8081	
Aldrin	ND	µg/kg dry wt	11/04/98	DGK		0.26
Dieldrin	ND	µg/kg dry wt	11/04/98	DGK		0.58
4,4'-DDT	ND	µg/kg dry wt	11/04/98	DGK		0.58
4,4'-DDE	ND	µg/kg dry wt	11/04/98	DGK		0.29
4,4'-DDD	ND	µg/kg dry wt	11/04/98	DGK		0.43
alpha-Endosulfan	ND	µg/kg dry wt	11/04/98	DGK		0.55
beta-Endosulfan	ND	µg/kg dry wt	11/04/98	DGK		0.58
Endosulfan sulfate	ND	µg/kg dry wt	11/04/98	DGK		0.58
Endrin	ND	µg/kg dry wt	11/04/98	DGK		0.58
Endrin aldehyde	ND	µg/kg dry wt	11/04/98	DGK		0.80
Heptachlor	ND	µg/kg dry wt	11/04/98	DGK		2.1
Heptachlor epoxide	ND	µg/kg dry wt	11/04/98	DGK		0.19
alpha-BHC	ND	µg/kg dry wt	11/04/98	DGK		1.7
beta-BHC	ND	µg/kg dry wt	11/04/98	DGK		1.2
delta-BHC	ND	µg/kg dry wt	11/04/98	DGK		1.6
gamma-BHC	ND	µg/kg dry wt	11/04/98	DGK		1.3
Chlordane	ND	µg/kg dry wt	11/04/98	DGK		6.1
Toxaphene	ND	µg/kg dry wt	11/04/98	DGK		2.3
Methoxychlor	ND	µg/kg dry wt	11/04/98	DGK		6.5
Florisil Cleanup	10/30/98	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	10/30/98	DGK		43
PCB-1221	ND	µg/kg dry wt	10/30/98	DGK		43
PCB-1232	ND	µg/kg dry wt	10/30/98	DGK		43
PCB-1242	ND	µg/kg dry wt	10/30/98	DGK		43
PCB-1248	ND	µg/kg dry wt	10/30/98	DGK		120

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: BPCP004 Lab ID: 9810384-01 Collected: 10/30/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Polychlorinated Biphenyls					EPA 8082	
PCB-1254	ND	µg/kg dry wt	10/30/98	DGK		43
PCB-1260	ND	µg/kg dry wt	10/30/98	DGK		43
Total PCBs	ND	µg/kg dry wt	10/30/98	DGK		210
Prep by Sonication	10/30/98	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	10/30/98	date completed		DGK	EPA 3630	
Soxhlet Ext. for Pesticide	10/30/98	prep. date		DGK	EPA 3540	
Soxhlet Extraction for BNA	11/02/98	prep. date		HL	EPA 3540	
Sulfur Cleanup	10/30/98	date completed		DGK	EPA 3660	

Sample ID: BPCP004D Lab ID: 9810384-02 Collected: 10/30/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids	90.2	% of sample	11/03/98	JA	APHA 2540 B.	N/A
Arsenic	3,300	µg/kg dry wt.	11/02/98	JA	EPA 7060	19
Barium	18,000	µg/kg dry wt.	11/02/98	JA	EPA 6010	9.5
Cadmium	9.5	µg/kg dry wt.	11/03/98	JA	EPA 7131	0.19
Chromium	5,700	µg/kg dry wt.	11/02/98	JA	EPA 6010	9.5
Copper	5,300	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Lead	3,800	µg/kg dry wt.	11/02/98	JA	EPA 6010	95
Mercury	ND	µg/kg dry wt.	11/03/98	MBR	EPA 7470	0.2
Metals Prep, Solid	11/02/98	date digested		JA	EPA 3050	
Nickel	5,500	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Selenium	ND	µg/kg dry wt.	11/02/98	JA	EPA 7740	19
Silver	ND	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Zinc	17,000	µg/kg dry wt.	11/02/98	JA	EPA 6010	19
Acid/Permanganate Cleanup	10/30/98	date completed		DGK	EPA 3665	
Base/Neutrals & Acid Ext.					EPA 8270	
bis(2-chloroethoxy)methane	ND	µg/kg dry wt	11/03/98	DAH		25
bis(2-chloroethyl)ether	ND	µg/kg dry wt	11/03/98	DAH		25
bis(2-chloroisopropyl)ether	ND	µg/kg dry wt	11/03/98	DAH		25
4-bromophenylphenyl ether	ND	µg/kg dry wt	11/03/98	DAH		25
4-chlorophenylphenyl ether	ND	µg/kg dry wt	11/03/98	DAH		25
bis(2-ethylhexyl)phthalate	ND	µg/kg dry wt	11/03/98	DAH		40
Butylbenzylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
Diethylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
Dimethylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
Di-n-butylphthalate	ND	µg/kg dry wt	11/03/98	DAH		130
Di-n-octylphthalate	ND	µg/kg dry wt	11/03/98	DAH		25
N-nitrosodimethylamine	ND	µg/kg dry wt	11/03/98	DAH		25
N-nitroso-Di-n-propylamine	ND	µg/kg dry wt	11/03/98	DAH		25
N-nitrosodiphenylamine	ND	µg/kg dry wt	11/03/98	DAH		25
1,2-diphenylhydrazine	ND	µg/kg dry wt	11/03/98	DAH		25
2-chloronaphthalene	ND	µg/kg dry wt	11/03/98	DAH		25
1,2-dichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
1,3-dichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
1,4-dichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
2,4-dinitrotoluene	ND	µg/kg dry wt	11/03/98	DAH		25
2,6-dinitrotoluene	ND	µg/kg dry wt	11/03/98	DAH		25
Hexachlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
Hexachlorobutadiene	ND	µg/kg dry wt	11/03/98	DAH		25
Hexachlorocyclopentadiene	ND	µg/kg dry wt	11/03/98	DAH		120
Hexachloroethane	ND	µg/kg dry wt	11/03/98	DAH		25
Isophorone	ND	µg/kg dry wt	11/03/98	DAH		25
Nitrobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
1,2,4-trichlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzidine	ND	µg/kg dry wt	11/03/98	DAH		120
3,3'-dichlorobenzidine	ND	µg/kg dry wt	11/03/98	DAH		120
Acenaphthene	ND	µg/kg dry wt	11/03/98	DAH		25

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: SPCP004D **Lab ID: 9810384-02** **Collected: 10/30/98**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Base/Neutrals & Acid Ext.					EPA 8270	
Acenaphthylene	ND	µg/kg dry wt	11/03/98	DAH		25
Anthracene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(a)anthracene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(a)pyrene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(b)fluoranthene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(g,h,i)perylene	ND	µg/kg dry wt	11/03/98	DAH		25
Benzo(k)fluoranthene	ND	µg/kg dry wt	11/03/98	DAH		25
Chrysene	ND	µg/kg dry wt	11/03/98	DAH		25
Dibenzo(a,h)anthracene	ND	µg/kg dry wt	11/03/98	DAH		25
Fluoranthene	ND	µg/kg dry wt	11/03/98	DAH		25
Fluorene	ND	µg/kg dry wt	11/03/98	DAH		25
Indeno(1,2,3-cd)pyrene	ND	µg/kg dry wt	11/03/98	DAH		25
Naphthalene	ND	µg/kg dry wt	11/03/98	DAH		25
Phenanthrene	ND	µg/kg dry wt	11/03/98	DAH		25
Pyrene	ND	µg/kg dry wt	11/03/98	DAH		25
Phenol	ND	µg/kg dry wt	11/03/98	DAH		25
2-chlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
2,4-dichlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
2,4,6-trichlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
Pentachlorophenol	ND	µg/kg dry wt	11/03/98	DAH		25
4-chloro-3-methylphenol	ND	µg/kg dry wt	11/03/98	DAH		25
2-nitrophenol	ND	µg/kg dry wt	11/03/98	DAH		25
4-nitrophenol	ND	µg/kg dry wt	11/03/98	DAH		120
2,4-dinitrophenol	ND	µg/kg dry wt	11/03/98	DAH		120
4,6-dinitro-2-methylphenol	ND	µg/kg dry wt	11/03/98	DAH		120
2,4-dimethylphenol	ND	µg/kg dry wt	11/03/98	DAH		25
EPA Pesticides					EPA 8081	
Aldrin	ND	µg/kg dry wt	11/04/98	DGK		0.27
Dieldrin	ND	µg/kg dry wt	11/04/98	DGK		0.54
4,4'-DDT	ND	µg/kg dry wt	11/04/98	DGK		0.54
4,4'-DDE	ND	µg/kg dry wt	11/04/98	DGK		0.54
4,4'-DDD	ND	µg/kg dry wt	11/04/98	DGK		0.54
alpha-Endosulfan	ND	µg/kg dry wt	11/04/98	DGK		0.27
beta-Endosulfan	ND	µg/kg dry wt	11/04/98	DGK		0.54
Endosulfan sulfate	ND	µg/kg dry wt	11/04/98	DGK		0.54
Endrin	ND	µg/kg dry wt	11/04/98	DGK		0.54
Endrin aldehyde	ND	µg/kg dry wt	11/04/98	DGK		0.54
Heptachlor	ND	µg/kg dry wt	11/04/98	DGK		0.27
Heptachlor epoxide	ND	µg/kg dry wt	11/04/98	DGK		0.27
alpha-BHC	ND	µg/kg dry wt	11/04/98	DGK		0.27
beta-BHC	ND	µg/kg dry wt	11/04/98	DGK		0.27
delta-BHC	ND	µg/kg dry wt	11/04/98	DGK		0.27
gamma-BHC	ND	µg/kg dry wt	11/04/98	DGK		0.27
Chlordane	ND	µg/kg dry wt	11/04/98	DGK		7.8
Toxaphene	ND	µg/kg dry wt	11/04/98	DGK		1.8
Methoxychlor	ND	µg/kg dry wt	11/04/98	DGK		0.54
Florisil Cleanup	10/30/98	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	10/30/98	DGK		41
PCB-1221	ND	µg/kg dry wt	10/30/98	DGK		41
PCB-1232	ND	µg/kg dry wt	10/30/98	DGK		41
PCB-1242	ND	µg/kg dry wt	10/30/98	DGK		41
PCB-1248	ND	µg/kg dry wt	10/30/98	DGK		90
PCB-1254	ND	µg/kg dry wt	10/30/98	DGK		41
PCB-1260	ND	µg/kg dry wt	10/30/98	DGK		41
Total PCBs	ND	µg/kg dry wt	10/30/98	DGK		180
Prep by Sonication	10/30/98	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	10/30/98	date completed		DGK	EPA 3630	
Soxhlet Ext. for Pesticide	10/30/98	prep. date		DGK	EPA 3540	
Soxhlet Extraction for BNA	11/02/98	prep. date		HL	EPA 3540	
Sulfur Cleanup	10/30/98	date completed		DGK	EPA 3660	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: BPG8004 **Lab ID: 9810384-03** **Collected: 10/30/98**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chloromethane	ND	µg/kg dry wt	11/03/98	DAH		250
Bromomethane	ND	µg/kg dry wt	11/03/98	DAH		250
Vinyl Chloride	ND	µg/kg dry wt	11/03/98	DAH		250
Chloroethane	ND	µg/kg dry wt	11/03/98	DAH		250
Chloroform	ND	µg/kg dry wt	11/03/98	DAH		50
Bromoform	ND	µg/kg dry wt	11/03/98	DAH		100
Chlorodibromomethane	ND	µg/kg dry wt	11/03/98	DAH		100
Bromodichloromethane	ND	µg/kg dry wt	11/03/98	DAH		100
Methylene Chloride	ND	µg/kg dry wt	11/03/98	DAH		300
1,1-dichloroethylene	ND	µg/kg dry wt	11/03/98	DAH		50
1,1-dichloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
Carbon Tetrachloride	ND	µg/kg dry wt	11/03/98	DAH		50
1,2-dichloropropane	ND	µg/kg dry wt	11/03/98	DAH		50
Trichloroethylene	ND	µg/kg dry wt	11/03/98	DAH		50
1,1,2-trichlorethane	ND	µg/kg dry wt	11/03/98	DAH		50
Tetrachloroethylene	ND	µg/kg dry wt	11/03/98	DAH		50
Cis-1,2-dichloroethene	ND	µg/kg dry wt	11/03/98	DAH		50
Trans-1,2-dichloroethene	ND	µg/kg dry wt	11/03/98	DAH		50
1,2-dichloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
1,1,1,-trichloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
Cis-1,3-dichloropropene	ND	µg/kg dry wt	11/03/98	DAH		50
Trans-1,3-dichloropropene	ND	µg/kg dry wt	11/03/98	DAH		50
1,1,2,2-tetrachloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
2-chloroethylvinylether	ND	µg/kg dry wt	11/03/98	DAH		100
Chlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		50
Benzene	ND	µg/kg dry wt	11/03/98	DAH		50
Toluene	ND	µg/kg dry wt	11/03/98	DAH		50
Ethyl Benzene	ND	µg/kg dry wt	11/03/98	DAH		50
Acrolein	ND	µg/kg dry wt	11/03/98	DAH		300
Acrylonitrile	ND	µg/kg dry wt	11/03/98	DAH		250
Total Solids	90.0	% of sample		DAH	APHA 2540 B.	

Sample ID: BPG8004D **Lab ID: 9810384-04** **Collected: 10/30/98**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chloromethane	ND	µg/kg dry wt	11/03/98	DAH		250
Bromomethane	ND	µg/kg dry wt	11/03/98	DAH		250
Vinyl Chloride	ND	µg/kg dry wt	11/03/98	DAH		250
Chloroethane	ND	µg/kg dry wt	11/03/98	DAH		250
Chloroform	ND	µg/kg dry wt	11/03/98	DAH		50
Bromoform	ND	µg/kg dry wt	11/03/98	DAH		100
Chlorodibromomethane	ND	µg/kg dry wt	11/03/98	DAH		100
Bromodichloromethane	ND	µg/kg dry wt	11/03/98	DAH		100
Methylene Chloride	ND	µg/kg dry wt	11/03/98	DAH		300
1,1-dichloroethylene	ND	µg/kg dry wt	11/03/98	DAH		50
1,1-dichloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
Carbon Tetrachloride	ND	µg/kg dry wt	11/03/98	DAH		50
1,2-dichloropropane	ND	µg/kg dry wt	11/03/98	DAH		50
Trichloroethylene	ND	µg/kg dry wt	11/03/98	DAH		50
1,1,2-trichlorethane	ND	µg/kg dry wt	11/03/98	DAH		50
Tetrachloroethylene	ND	µg/kg dry wt	11/03/98	DAH		50
Cis-1,2-dichloroethene	ND	µg/kg dry wt	11/03/98	DAH		50
Trans-1,2-dichloroethene	ND	µg/kg dry wt	11/03/98	DAH		50
1,2-dichloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
1,1,1,-trichloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
Cis-1,3-dichloropropene	ND	µg/kg dry wt	11/03/98	DAH		50
Trans-1,3-dichloropropene	ND	µg/kg dry wt	11/03/98	DAH		50

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: BP660040 Lab ID: 9810384-04 Collected: 10/30/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
1,1,2,2-tetrachloroethane	ND	µg/kg dry wt	11/03/98	DAH		50
2-chloroethylvinylether	ND	µg/kg dry wt	11/03/98	DAH		100
Chlorobenzene	ND	µg/kg dry wt	11/03/98	DAH		50
Benzene	ND	µg/kg dry wt	11/03/98	DAH		50
Toluene	ND	µg/kg dry wt	11/03/98	DAH		50
Ethyl Benzene	ND	µg/kg dry wt	11/03/98	DAH		50
Acrolein	ND	µg/kg dry wt	11/03/98	DAH		300
Acrylonitrile	ND	µg/kg dry wt	11/03/98	DAH		250
Total Solids	92.2	% of sample		DAH	APHA 2540 B.	

Sample ID: Trip Blank Lab ID: 9810384-05 Collected: 10/30/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chloromethane	ND	µg/L	11/03/98	HL		250
Bromomethane	ND	µg/L	11/03/98	HL		250
Vinyl Chloride	ND	µg/L	11/03/98	HL		250
Chloroethane	ND	µg/L	11/03/98	HL		250
Chloroform	ND	µg/L	11/03/98	HL		50
Bromoform	ND	µg/L	11/03/98	HL		100
Chlorodibromomethane	ND	µg/L	11/03/98	HL		100
Bromodichloromethane	ND	µg/L	11/03/98	HL		100
Methylene Chloride	ND	µg/L	11/03/98	HL		300
1,1-dichloroethylene	ND	µg/L	11/03/98	HL		50
1,1-dichloroethane	ND	µg/L	11/03/98	HL		50
Carbon Tetrachloride	ND	µg/L	11/03/98	HL		50
1,2-dichloropropane	ND	µg/L	11/03/98	HL		50
Trichloroethylene	ND	µg/L	11/03/98	HL		50
1,1,2-trichloroethane	ND	µg/L	11/03/98	HL		50
Tetrachloroethylene	ND	µg/L	11/03/98	HL		50
Cis-1,2-dichloroethene	ND	µg/L	11/03/98	HL		50
Trans-1,2-dichloroethene	ND	µg/L	11/03/98	HL		50
1,2-dichloroethane	ND	µg/L	11/03/98	HL		50
1,1,1,-trichloroethane	ND	µg/L	11/03/98	HL		50
Cis-1,3-dichloropropene	ND	µg/L	11/03/98	HL		50
Trans-1,3-dichloropropene	ND	µg/L	11/03/98	HL		50
1,1,2,2-tetrachloroethane	ND	µg/L	11/03/98	HL		50
2-chloroethylvinylether	ND	µg/L	11/03/98	HL		100
Chlorobenzene	ND	µg/L	11/03/98	HL		50
Benzene	ND	µg/L	11/03/98	HL		50
Toluene	ND	µg/L	11/03/98	HL		50
Ethyl Benzene	ND	µg/L	11/03/98	HL		50
Acrolein	ND	µg/L	11/03/98	HL		300
Acrylonitrile	ND	µg/L	11/03/98	HL		250

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX. 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 30, 1998

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on November 24, 1998.

Sample ID: BF-CP-005 Lab ID: 9811296-01 Collected: 11/20/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Arsenic	2,600	µg/kg dry wt.	11/30/98	JA	EPA 7060	510
Barium	18,000	µg/kg dry wt.	11/25/98	JA	EPA 6010	260
Cadmium	ND	µg/kg dry wt.	11/30/98	JA	EPA 7131	51
Chromium	5,200	µg/kg dry wt.	11/25/98	JA	EPA 6010	260
Copper	4,300	µg/kg dry wt.	11/25/98	JA	EPA 6010	510
Lead	3,400	µg/kg dry wt.	11/25/98	JA	EPA 6010	2,600
Mercury	ND	µg/kg dry wt.	11/25/98	WS	EPA 7471	27
Metals Prep, Solid	11/25/98	date digested		JA	EPA 3050	
Nickel	4,700	µg/kg dry wt.	11/25/98	JA	EPA 6010	510
Selenium	ND	µg/kg dry wt.	11/30/98	JA	EPA 7740	510
Silver	ND	µg/kg dry wt.	11/25/98	JA	EPA 6010	510
Zinc	15,000	µg/kg dry wt.	11/25/98	JA	EPA 6010	510
Acid/Permanganate Cleanup	11/24/98	date completed		WJC	EPA 3665	
Alumina Cleanup	11/24/98	date completed		WJC	EPA 3611	
Florisil Cleanup	11/24/98	date completed		WJC	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/24/98	DGK		32
PCB-1221	ND	µg/kg dry wt	11/24/98	DGK		61
PCB-1232	ND	µg/kg dry wt	11/24/98	DGK		32
PCB-1242	ND	µg/kg dry wt	11/24/98	DGK		32
PCB-1248	ND	µg/kg dry wt	11/24/98	DGK		61
PCB-1254	ND	µg/kg dry wt	11/24/98	DGK		32
PCB-1260	ND	µg/kg dry wt	11/24/98	DGK		32
Total PCBs	ND	µg/kg dry wt	11/24/98	DGK		160
Prep by Sonication	11/24/98	prep. date		WJC	EPA 3550	
Silica Gel Cleanup	11/24/98	date completed		WJC	EPA 3630	
Sulfur Cleanup	11/24/98	date completed		WJC	EPA 3660	
Total Solids	91.8	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: February 2, 1999

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on January 29, 1999.

Sample ID: SF-CF-006 Lab ID: 9901299-01 Collected: 01/29/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Total Solids	89.7	% of sample	02/01/99	JA	APHA 2540 B.	N/A
Arsenic	3,400	µg/kg dry wt.	02/01/99	JA	EPA 6010	1,300
Barium	36,000	µg/kg dry wt.	02/01/99	JA	EPA 6010	130
Cadmium	99	µg/kg dry wt.	02/01/99	JA	EPA 7131	27
Chromium	8,800	µg/kg dry wt.	02/01/99	JA	EPA 6010	130
Copper	5,800	µg/kg dry wt.	02/01/99	JA	EPA 6010	270
Lead	7,300	µg/kg dry wt.	02/01/99	JA	EPA 6010	1,300
Mercury	17	µg/kg dry wt.	02/01/99	WS	EPA 7471	9
Metals Prep, Solid	02/01/99	date digested		JA	EPA 3050	
Nickel	6,900	µg/kg dry wt.	02/01/99	JA	EPA 6010	270
Selenium	ND	µg/kg dry wt.	02/01/99	JA	EPA 7740	270
Silver	ND	µg/kg dry wt.	02/01/99	JA	EPA 6010	270
Zinc	24,000	µg/kg dry wt.	02/01/99	JA	EPA 6010	270
Acid/Permanganate Cleanup	01/31/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/31/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/31/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	02/01/99	DGK		36
PCB-1221	ND	µg/kg dry wt	02/01/99	DGK		36
PCB-1232	ND	µg/kg dry wt	02/01/99	DGK		36
PCB-1242	ND	µg/kg dry wt	02/01/99	DGK		36
PCB-1248	ND	µg/kg dry wt	02/01/99	DGK		55
PCB-1254	ND	µg/kg dry wt	02/01/99	DGK		36
PCB-1260	ND	µg/kg dry wt	02/01/99	DGK		36
Total PCBs	ND	µg/kg dry wt	02/01/99	DGK		130
Prep by Sonication	01/31/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/31/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/31/99	date completed		DGK	EPA 3660	
Total Solids	89.7	% of sample	02/01/99	JA	APHA 2540 B.	N/A

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmest.com
Internet: http://www.wmest.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim Laquerre
Re: Kalamazoo River Superfund

DATE: April 9, 1999

ANALYSIS OF: Soil Sample

REPORTED BY: Robert R. Zahray (RZ)
Robert R. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on April 8, 1999.

Sample ID: BF-CP-007 Lab ID: 9904114-01 Collected: 04/08/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	90.1	% of sample	04/09/99	MBR	APHA 2540 B.	N/A
Arsenic	3,200	µg/kg dry wt.	04/09/99	MBR	EPA 7060	35
Barium	15,000	µg/kg dry wt.	04/08/99	MBR	EPA 6010	180
Cadmium	28	µg/kg dry wt.	04/09/99	MBR	EPA 7131	3.5
Chromium	3,400	µg/kg dry wt.	04/08/99	MBR	EPA 6010	180
Copper	4,500	µg/kg dry wt.	04/08/99	MBR	EPA 6010	350
Lead	2,900	µg/kg dry wt.	04/08/99	MBR	EPA 6010	1,800
Mercury	ND	µg/kg dry wt.	04/09/99	MBR	EPA 7471	9.1
Metals Prep, Solid	04/08/99	date digested		MBR	EPA 3050	
Nickel	5,300	µg/kg dry wt.	04/08/99	MBR	EPA 6010	350
Selenium	ND	µg/kg dry wt.	04/08/99	MBR	EPA 7740	35
Silver	ND	µg/kg dry wt.	04/08/99	MBR	EPA 6010	350
Zinc	15,000	µg/kg dry wt.	04/08/99	MBR	EPA 6010	350
Acid/Permanganate Cleanup	04/08/99	date completed		DGK	EPA 3665	
Alumina Cleanup	04/08/99	date completed		DGK	EPA 3611	
Florisil Cleanup	04/08/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	04/09/99	DGK		24
PCB-1221	ND	µg/kg dry wt	04/09/99	DGK		24
PCB-1232	ND	µg/kg dry wt	04/09/99	DGK		24
PCB-1242	ND	µg/kg dry wt	04/09/99	DGK		24
PCB-1248	ND	µg/kg dry wt	04/09/99	DGK		24
PCB-1254	ND	µg/kg dry wt	04/09/99	DGK		24
PCB-1260	ND	µg/kg dry wt	04/09/99	DGK		24
Total PCBs	ND	µg/kg dry wt	04/09/99	DGK		75
Prep by Sonication	04/08/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	04/08/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	04/08/99	date completed		DGK	EPA 3660	
Total Solids	89.7	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

APPENDIX G1

CHAIN OF CUSTODY
(LAGOON BACKFILL)

WES..RN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

11-1

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: DAVE ENNIS

Turn Around Requirements: 5 days

Project No.: | Project Name: Kalamazoo River Superfund

Sampler (print): [illegible] | Signature: [signature]

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	VOCs	SVOCs	PCBs / Pesticides	RCRA + MI Metals	Cyanide	ADDITIONAL REQUIREMENTS
	BF-SP-CS-01	X		8/2/99	1030	Soil					X	X	X	X	
	BF-SP-GS-01		X	8/2/99	1035	Soil				X					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	8/2/99	1250					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						SAM's for Backfill Samples

White - Lab Yellow - Office Pink - Field

APPENDIX G2

LAGOON BACKFILL ANALYTICAL DATA

LAGOON BACKFILL ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed					
				PCB (mg/kg)	Metals	SVOC	VOC	Pesticides	Cyanide
BF-SP-CS-01	Lagoon Backfill - Chemical	8/2/99	Western Michigan	ND	x	x	x	x	x

x = analysis performed, see analytical data for results

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim La Querre
Re: Kalamazoo River Superfund

DATE: August 6, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Director

DATE RECEIVED: Received from client on August 2, 1999.

Sample ID: BF-SP-CS-01 Lab ID: 9908013-01 Collected: 08/02/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Cyanide	BDL	mg/kg dry wt.	08/04/99	MBR	EPA 9010	0.12
Total Solids (104 °C)	96.4	% of sample	08/03/99	JA	APHA 2540 B.	N/A
Arsenic	3.2	mg/kg dry wt.	08/05/99	JA	EPA 7060	0.046
Barium	7.2	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.23
Cadmium	0.45	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.23
Chromium	3.7	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.23
Copper	3.6	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.46
Lead	7.1	mg/kg dry wt.	08/03/99	MBR	EPA 6010	2.3
Mercury	BDL	mg/kg dry wt.	08/03/99	MG	EPA 7471	0.032
Metals Prep, Solid	08/03/99	date digested		JA	EPA 3050	
Nickel	2.8	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.46
Selenium	BDL	mg/kg dry wt.	08/05/99	JA	EPA 7740	0.046
Silver	1.0	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.46
Zinc	10	mg/kg dry wt.	08/03/99	MBR	EPA 6010	0.46
Acid/Permanganate Cleanup	08/04/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/04/99	date completed		BT	EPA 3611	
Base/Neutrals & Acid Ext.					EPA 8270	
bis(2-chloroethoxy)methane	BDL	µg/kg dry wt.	08/05/99	MBR		25
bis(2-chloroethyl)ether	BDL	µg/kg dry wt.	08/05/99	MBR		25
bis(2-chloroisopropyl)ether	BDL	µg/kg dry wt.	08/05/99	MBR		25
4-bromophenylphenyl ether	BDL	µg/kg dry wt.	08/05/99	MBR		25
4-chlorophenylphenyl ether	BDL	µg/kg dry wt.	08/05/99	MBR		25
bis(2-ethylhexyl)phthalate	BDL	µg/kg dry wt.	08/05/99	MBR		40
Butylbenzylphthalate	BDL	µg/kg dry wt.	08/05/99	MBR		25
Diethylphthalate	BDL	µg/kg dry wt.	08/05/99	MBR		25
Dimethylphthalate	BDL	µg/kg dry wt.	08/05/99	MBR		25
Di-n-butylphthalate	BDL	µg/kg dry wt.	08/05/99	MBR		70
Di-n-octylphthalate	BDL	µg/kg dry wt.	08/05/99	MBR		25
N-nitrosodimethylamine	BDL	µg/kg dry wt.	08/05/99	MBR		25
N-nitroso-Di-n-propylamine	BDL	µg/kg dry wt.	08/05/99	MBR		25
N-nitrosodiphenylamine	BDL	µg/kg dry wt.	08/05/99	MBR		25
1,2-diphenylhydrazine	BDL	µg/kg dry wt.	08/05/99	MBR		25
2-chloronaphthalene	BDL	µg/kg dry wt.	08/05/99	MBR		25
1,2-dichlorobenzene	BDL	µg/kg dry wt.	08/05/99	MBR		25
1,3-dichlorobenzene	BDL	µg/kg dry wt.	08/05/99	MBR		25
1,4-dichlorobenzene	BDL	µg/kg dry wt.	08/05/99	MBR		25
2,4-dinitrotoluene	BDL	µg/kg dry wt.	08/05/99	MBR		25
2,6-dinitrotoluene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Hexachlorobenzene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Hexachlorobutadiene	BDL	µg/kg dry wt.	08/05/99	MBR		25

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: BF-SP-CS-01 **Lab ID: 9908013-01** **Collected: 08/02/99**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Base/Neutrals & Acid Ext.					EPA 8270	
Hexachlorocyclopentadiene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Hexachloroethane	BDL	µg/kg dry wt.	08/05/99	MBR		25
Isophorone	BDL	µg/kg dry wt.	08/05/99	MBR		25
Nitrobenzene	BDL	µg/kg dry wt.	08/05/99	MBR		25
1,2,4-trichlorobenzene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Benzidine	BDL	µg/kg dry wt.	08/05/99	MBR		120
3,3'-dichlorobenzidine	BDL	µg/kg dry wt.	08/05/99	MBR		25
Acenaphthene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Acenaphthylene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Anthracene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Benzo(a)anthracene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Benzo(a)pyrene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Benzo(b)fluoranthene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Benzo(g,h,i)perylene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Benzo(k)fluoranthene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Chrysene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Dibenzo(a,h)anthracene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Fluoranthene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Fluorene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Indeno(1,2,3-cd)pyrene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Naphthalene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Phenanthrene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Pyrene	BDL	µg/kg dry wt.	08/05/99	MBR		25
Phenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
2-chlorophenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
2,4-dichlorophenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
2,4,6-trichlorophenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
Pentachlorophenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
4-chloro-3-methylphenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
2-nitrophenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
4-nitrophenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
2,4-dinitrophenol	BDL	µg/kg dry wt.	08/05/99	MBR		120
4,6-dinitro-2-methylphenol	BDL	µg/kg dry wt.	08/05/99	MBR		120
2,4-dimethylphenol	BDL	µg/kg dry wt.	08/05/99	MBR		25
EPA Pesticides					EPA 8081	
Aldrin	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Dieldrin	BDL	µg/kg dry wt	08/04/99	DAH		0.24
4,4'-DDT	BDL	µg/kg dry wt	08/04/99	DAH		0.24
4,4'-DDE	BDL	µg/kg dry wt	08/04/99	DAH		0.24
4,4'-DDD	BDL	µg/kg dry wt	08/04/99	DAH		0.24
alpha-Endosulfan	BDL	µg/kg dry wt	08/04/99	DAH		0.24
beta-Endosulfan	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Endosulfan sulfate	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Endrin	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Endrin aldehyde	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Heptachlor	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Heptachlor epoxide	BDL	µg/kg dry wt	08/04/99	DAH		0.24
alpha-BHC	BDL	µg/kg dry wt	08/04/99	DAH		0.24
beta-BHC	BDL	µg/kg dry wt	08/04/99	DAH		0.24
delta-BHC	BDL	µg/kg dry wt	08/04/99	DAH		0.24
gamma-BHC	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Chlordane	BDL	µg/kg dry wt	08/04/99	DAH		2.0
Toxaphene	BDL	µg/kg dry wt	08/04/99	DAH		5.0
Methoxychlor	BDL	µg/kg dry wt	08/04/99	DAH		0.24
Florisil Cleanup	08/04/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	BDL	µg/kg dry wt	08/04/99	DGK		25
PCB-1221	BDL	µg/kg dry wt	08/04/99	DGK		25
PCB-1232	BDL	µg/kg dry wt	08/04/99	DGK		25
PCB-1242	BDL	µg/kg dry wt	08/04/99	DGK		25
PCB-1248	BDL	µg/kg dry wt	08/04/99	DGK		25
PCB-1254	BDL	µg/kg dry wt	08/04/99	DGK		25

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: SF-SP-CS-01 Lab ID: 9908013-01 Collected: 08/02/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Polychlorinated Biphenyls					EPA 8082	
PCB-1260	BDL	µg/kg dry wt	08/04/99	DGK		25
Total PCBs	BDL	µg/kg dry wt	08/04/99	DGK		75
Prep by Sonication	08/04/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/04/99	date completed		BT	EPA 3630	
Soxhlet Ext. for Pesticide	08/04/99	prep. date		BT	EPA 3540	
Soxhlet Extraction for BNA	08/04/99	prep. date		BT	EPA 3540	
Sulfur Cleanup	08/04/99	date completed		BT	EPA 3660	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: BF-SP-GS-01 Lab ID: 9908013-02 Collected: 08/02/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chloromethane	BDL	µg/kg as recd.	08/04/99	DAH		250
Bromomethane	BDL	µg/kg as recd.	08/04/99	DAH		250
Vinyl Chloride	BDL	µg/kg as recd.	08/04/99	DAH		250
Chloroethane	BDL	µg/kg as recd.	08/04/99	DAH		250
Chloroform	BDL	µg/kg as recd.	08/04/99	DAH		60
Bromoform	BDL	µg/kg as recd.	08/04/99	DAH		100
Chlorodibromomethane	BDL	µg/kg as recd.	08/04/99	DAH		100
Bromodichloromethane	BDL	µg/kg as recd.	08/04/99	DAH		100
Methylene Chloride	BDL	µg/kg as recd.	08/04/99	DAH		750
1,1-dichloroethylene	BDL	µg/kg as recd.	08/04/99	DAH		50
1,1-dichloroethane	BDL	µg/kg as recd.	08/04/99	DAH		50
Carbon Tetrachloride	BDL	µg/kg as recd.	08/04/99	DAH		50
1,2-dichloropropane	BDL	µg/kg as recd.	08/04/99	DAH		50
Trichloroethylene	BDL	µg/kg as recd.	08/04/99	DAH		50
1,1,2-trichloroethane	BDL	µg/kg as recd.	08/04/99	DAH		50
Tetrachloroethylene	BDL	µg/kg as recd.	08/04/99	DAH		50
Cis-1,2-dichloroethene	BDL	µg/kg as recd.	08/04/99	DAH		50
Trans-1,2-dichloroethene	BDL	µg/kg as recd.	08/04/99	DAH		50
1,2-dichloroethane	BDL	µg/kg as recd.	08/04/99	DAH		50
1,1,1,-trichloroethane	BDL	µg/kg as recd.	08/04/99	DAH		50
Cis-1,3-dichloropropene	BDL	µg/kg as recd.	08/04/99	DAH		50
Trans-1,3-dichloropropene	BDL	µg/kg as recd.	08/04/99	DAH		50
1,1,2,2-tetrachloroethane	BDL	µg/kg as recd.	08/04/99	DAH		100
2-chloroethylvinylether	BDL	µg/kg as recd.	08/04/99	DAH		100
Chlorobenzene	BDL	µg/kg as recd.	08/04/99	DAH		50
Benzene	BDL	µg/kg as recd.	08/04/99	DAH		50
Toluene	BDL	µg/kg as recd.	08/04/99	DAH		50
Ethyl Benzene	BDL	µg/kg as recd.	08/04/99	DAH		50
Acrolein	BDL	µg/kg as recd.	08/04/99	DAH		300
Acrylonitrile	BDL	µg/kg as recd.	08/04/99	DAH		250

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

APPENDIX H1

CHAIN OF CUSTODY
(VENTING LAYER)

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: David Emmis

Turn Around Requirements: 5 day

Project No.: | Project Name: Kalamazoo River Superfund

Sampler (print): David Emmis | Signature: David M. Emmis

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	SVOCs	PCBs	TAL Metals	Cyanide	ADDITIONAL REQUIREMENTS
	2NS-SP-01	X		4/13/14	1330	Soil				X	X	X	X	
												1		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
David M. Emmis	4/13/14	1330	JOE NOLAN		4/13/14	1830	
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:	
				4/13/14	1835	2 NS from Sam's Pit	

White - Lab Yellow - Office Pink - Field

1156

WEST N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: David Ennis

Turn Around Requirements: 5 - day

Project No.: | Project Name: Kalamazoo River Superfund

Sampler (print): David Ennis | Signature: David M. Ennis

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	VOC's	PCB's	ADDITIONAL REQUIREMENTS
	2NS-SP-02		X	8-25-91	1230	Soil		2		X		
	HR-GS-005-ST		X		1050			1			X	
	HR-GS-006-ST		X		1055			1			X	
	HR-GS-007-ST		X		1100			1			X	
	HR-GS-014-ST		X		1105			1			X	
	HR-GS-012-ST		X		1110			1			X	
	HR-GS-010-ST		X		1115			1			X	
	HR-GS-011-ST		X		1120			1			X	
	HR-GS-004-ST		X	↓	1125	↓		1			X	
	HR-GS-W6-ST		X	"	1300	Soil		1			X	
	HR-GS-X-ST		X	X	1300	Soil		1			X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
David M. Ennis	8-25-91	1230					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

White - Lab Yellow - C Pink - Field

APPENDIX H2

VENTING LAYER ANALYTICAL DATA

VENTING LAYER ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed					
				PCB (mg/kg)	Metals	SVOC	VOC	Pesticides	Cyanide
2NS-SP-01	Venting Layer - Chemical	8/23/99	Western Michigan	ND	x	x		x	x
2NS-SP-02	Venting Layer - Chemical	8/25/99	Western Michigan				x		

x = analysis performed, see analytical data for results

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: David Ennis
Re: Kalamazoo River Superfund

DATE: August 27, 1999

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray, Laboratory Director

DATE RECEIVED: Received from client on August 23, 1999.

Sample ID: 2NS-SP-01 Lab ID: 9908241-01 Collected: 08/23/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Cyanide	ND	µg/kg dry wt.	08/26/99	WS	EPA 9010	120
Total Solids (104 °C)	96.6	% of sample	08/25/99	JA	APHA 2540 B.	N/A
Arsenic	3,100	µg/kg dry wt.	08/25/99	JA	EPA 7060	390
Barium	6,300	µg/kg dry wt.	08/24/99	JA	EPA 6010	200
Cadmium	580	µg/kg dry wt.	08/24/99	JA	EPA 6010	390
Chromium	3,700	µg/kg dry wt.	08/24/99	JA	EPA 6010	200
Copper	3,000	µg/kg dry wt.	08/24/99	JA	EPA 6010	390
Lead	7,200	µg/kg dry wt.	08/24/99	JA	EPA 6010	2,000
Mercury	ND	µg/kg dry wt.	08/24/99	MG	EPA 7471	27
Metals Prep, Solid	08/24/99	date digested		JA	EPA 3050	
Selenium	ND	µg/kg dry wt.	08/25/99	JA	EPA 7740	390
Silver	ND	µg/kg dry wt.	08/24/99	JA	EPA 6010	390
Zinc	19,000	µg/kg dry wt.	08/24/99	JA	EPA 6010	390
Acid/Permanganate Cleanup	08/25/99	date completed		BT	EPA 3665	
Alumina Cleanup	08/25/99	date completed		BT	EPA 3611	
Base/Neutrals & Acid Ext.					EPA 8270	
bis(2-chloroethoxy)methane	ND	µg/kg dry wt	08/25/99	HL		330
bis(2-chloroethyl)ether	ND	µg/kg dry wt	08/25/99	HL		330
bis(2-chloroisopropyl)ether	ND	µg/kg dry wt	08/25/99	HL		330
4-bromophenylphenyl ether	ND	µg/kg dry wt	08/25/99	HL		330
4-chlorophenylphenyl ether	ND	µg/kg dry wt	08/25/99	HL		330
bis(2-ethylhexyl)phthalate	ND	µg/kg dry wt	08/25/99	HL		330
Butylbenzylphthalate	ND	µg/kg dry wt	08/25/99	HL		330
Diethylphthalate	ND	µg/kg dry wt	08/25/99	HL		330
Dimethylphthalate	ND	µg/kg dry wt	08/25/99	HL		330
Di-n-butylphthalate	ND	µg/kg dry wt	08/25/99	HL		330
Di-n-octylphthalate	ND	µg/kg dry wt	08/25/99	HL		330
N-nitrosodimethylamine	ND	µg/kg dry wt	08/25/99	HL		330
N-nitroso-Di-n-propylamine	ND	µg/kg dry wt	08/25/99	HL		330
N-nitrosodiphenylamine	ND	µg/kg dry wt	08/25/99	HL		330
1,2-diphenylhydrazine	ND	µg/kg dry wt	08/25/99	HL		330
2-chloronaphthalene	ND	µg/kg dry wt	08/25/99	HL		330
1,2-dichlorobenzene	ND	µg/kg dry wt	08/25/99	HL		330
1,3-dichlorobenzene	ND	µg/kg dry wt	08/25/99	HL		330
1,4-dichlorobenzene	ND	µg/kg dry wt	08/25/99	HL		330
2,4-dinitrotoluene	ND	µg/kg dry wt	08/25/99	HL		330

BDL = Below Detection Limit
MDL = Method Detection Limit

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: 2NS-SP-01 **Lab ID: 9908241-01** **Collected: 08/23/99**

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Base/Neutrals & Acid Ext.					EPA 8270	
2,6-dinitrotoluene	ND	µg/kg dry wt	08/25/99	HL		330
Hexachlorobenzene	ND	µg/kg dry wt	08/25/99	HL		330
Hexachlorobutadiene	ND	µg/kg dry wt	08/25/99	HL		330
Hexachlorocyclopentadiene	ND	µg/kg dry wt	08/25/99	HL		330
Hexachloroethane	ND	µg/kg dry wt	08/25/99	HL		330
Isophorone	ND	µg/kg dry wt	08/25/99	HL		330
Nitrobenzene	ND	µg/kg dry wt	08/25/99	HL		330
1,2,4-trichlorobenzene	ND	µg/kg dry wt	08/25/99	HL		330
Benzidine	ND	µg/kg dry wt	08/25/99	HL		330
3,3'-dichlorobenzidine	ND	µg/kg dry wt	08/25/99	HL		330
Acenaphthene	ND	µg/kg dry wt	08/25/99	HL		330
Acenaphthylene	ND	µg/kg dry wt	08/25/99	HL		330
Anthracene	ND	µg/kg dry wt	08/25/99	HL		330
Benzo(a)anthracene	ND	µg/kg dry wt	08/25/99	HL		330
Benzo(a)pyrene	ND	µg/kg dry wt	08/25/99	HL		330
Benzo(b)fluoranthene	ND	µg/kg dry wt	08/25/99	HL		330
Benzo(g,h,i)perylene	ND	µg/kg dry wt	08/25/99	HL		330
Benzo(k)fluoranthene	ND	µg/kg dry wt	08/25/99	HL		330
Chrysene	ND	µg/kg dry wt	08/25/99	HL		330
Dibenzo(a,h)anthracene	ND	µg/kg dry wt	08/25/99	HL		330
Fluoranthene	ND	µg/kg dry wt	08/25/99	HL		330
Fluorene	ND	µg/kg dry wt	08/25/99	HL		330
Indeno(1,2,3-cd)pyrene	ND	µg/kg dry wt	08/25/99	HL		330
Naphthalene	ND	µg/kg dry wt	08/25/99	HL		330
Phenanthrene	ND	µg/kg dry wt	08/25/99	HL		330
Pyrene	ND	µg/kg dry wt	08/25/99	HL		330
Phenol	ND	µg/kg dry wt	08/25/99	HL		330
2-chlorophenol	ND	µg/kg dry wt	08/25/99	HL		330
2,4-dichlorophenol	ND	µg/kg dry wt	08/25/99	HL		330
2,4,6-trichlorophenol	ND	µg/kg dry wt	08/25/99	HL		330
Pentachlorophenol	ND	µg/kg dry wt	08/25/99	HL		330
4-chloro-3-methylphenol	ND	µg/kg dry wt	08/25/99	HL		330
2-nitrophenol	ND	µg/kg dry wt	08/25/99	HL		330
4-nitrophenol	ND	µg/kg dry wt	08/25/99	HL		330
2,4-dinitrophenol	ND	µg/kg dry wt	08/25/99	HL		330
4,6-dinitro-2-methylphenol	ND	µg/kg dry wt	08/25/99	HL		330
2,4-dimethylphenol	ND	µg/kg dry wt	08/25/99	HL		330
EPA Pesticides					EPA 8081	
Aldrin	ND	µg/kg dry wt	08/27/99	DGK		1.9
Dieldrin	ND	µg/kg dry wt	08/27/99	DGK		0.47
4,4'-DDT	ND	µg/kg dry wt	08/27/99	DGK		0.47
4,4'-DDE	ND	µg/kg dry wt	08/27/99	DGK		0.47
4,4'-DDD	ND	µg/kg dry wt	08/27/99	DGK		0.47
alpha-Endosulfan	ND	µg/kg dry wt	08/27/99	DGK		0.47
beta-Endosulfan	ND	µg/kg dry wt	08/27/99	DGK		0.47
Endosulfan sulfate	ND	µg/kg dry wt	08/27/99	DGK		0.47
Endrin	ND	µg/kg dry wt	08/27/99	DGK		0.47
Endrin aldehyde	ND	µg/kg dry wt	08/27/99	DGK		0.47
Heptachlor	ND	µg/kg dry wt	08/27/99	DGK		0.94
Heptachlor epoxide	ND	µg/kg dry wt	08/27/99	DGK		0.52
alpha-BHC	ND	µg/kg dry wt	08/27/99	DGK		2.3
beta-BHC	ND	µg/kg dry wt	08/27/99	DGK		0.24
delta-BHC	ND	µg/kg dry wt	08/27/99	DGK		1.2
gamma-BHC	ND	µg/kg dry wt	08/27/99	DGK		0.24
Chlordane	ND	µg/kg dry wt	08/27/99	DGK		5.9
Toxaphene	ND	µg/kg dry wt	08/27/99	DGK		12
Methoxychlor	ND	µg/kg dry wt	08/27/99	DGK		0.47
Florisil Cleanup	08/25/99	date completed		RT	EPA 3620	

SDL = Below Detection Limit
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: 2NS-SP-01 **Lab ID: 9908241-01** **Collected: 08/23/99**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	08/27/99	DGK		25
PCB-1221	ND	µg/kg dry wt	08/27/99	DGK		25
PCB-1232	ND	µg/kg dry wt	08/27/99	DGK		25
PCB-1242	ND	µg/kg dry wt	08/27/99	DGK		25
PCB-1248	ND	µg/kg dry wt	08/27/99	DGK		25
PCB-1254	ND	µg/kg dry wt	08/27/99	DGK		25
PCB-1260	ND	µg/kg dry wt	08/27/99	DGK		25
Total PCBs	ND	µg/kg dry wt	08/27/99	DGK		75
Prep by Sonication	08/25/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	08/25/99	date completed		BT	EPA 3630	
Soxhlet Ext. for Pesticide	08/25/99	prep. date		BT	EPA 3540	
Soxhlet Extraction for BNA	08/25/99	prep. date		BT	EPA 3540	
Sulfur Cleanup	08/25/99	date completed		BT	EPA 3660	

BDL = Below Detection Limit
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: David Ennis
Re: Kalamazoo River Superfund

DATE: August 31, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Director

DATE RECEIVED: Received from client on August 26, 1999.

Sample ID: 2MS-SP-02 **Lab ID: 9908286-01** **Collected: 08/25/99**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chloromethane	ND	µg/kg as recd	08/30/99	DAH		250
Bromomethane	ND	µg/kg as recd	08/30/99	DAH		250
Vinyl Chloride	ND	µg/kg as recd	08/30/99	DAH		250
Chloroethane	ND	µg/kg as recd	08/30/99	DAH		250
Chloroform	ND	µg/kg as recd	08/30/99	DAH		50
Bromoform	ND	µg/kg as recd	08/30/99	DAH		100
Chlorodibromomethane	ND	µg/kg as recd	08/30/99	DAH		100
Bromodichloromethane	ND	µg/kg as recd	08/30/99	DAH		100
Methylene Chloride	ND	µg/kg as recd	08/30/99	DAH		250
1,1-dichloroethylene	ND	µg/kg as recd	08/30/99	DAH		50
1,1-dichloroethane	ND	µg/kg as recd	08/30/99	DAH		50
Carbon Tetrachloride	ND	µg/kg as recd	08/30/99	DAH		50
1,2-dichloropropane	ND	µg/kg as recd	08/30/99	DAH		50
Trichloroethylene	ND	µg/kg as recd	08/30/99	DAH		50
1,1,2-trichloroethane	ND	µg/kg as recd	08/30/99	DAH		50
Tetrachloroethylene	ND	µg/kg as recd	08/30/99	DAH		50
Cis-1,2-dichloroethene	ND	µg/kg as recd	08/30/99	DAH		50
Trans-1,2-dichloroethene	ND	µg/kg as recd	08/30/99	DAH		50
1,2-dichloroethane	ND	µg/kg as recd	08/30/99	DAH		50
1,1,1,-trichloroethane	ND	µg/kg as recd	08/30/99	DAH		50
Cis-1,3-dichloropropene	ND	µg/kg as recd	08/30/99	DAH		50
Trans-1,3-dichloropropene	ND	µg/kg as recd	08/30/99	DAH		50
1,1,2,2-tetrachloroethane	ND	µg/kg as recd	08/30/99	DAH		50
2-chloroethylvinylether	ND	µg/kg as recd	08/30/99	DAH		50
Chlorobenzene	ND	µg/kg as recd	08/30/99	DAH		50
Benzene	ND	µg/kg as recd	08/30/99	DAH		50
Toluene	ND	µg/kg as recd	08/30/99	DAH		50
Ethyl Benzene	ND	µg/kg as recd	08/30/99	DAH		50
Acrolein	ND	µg/kg as recd	08/30/99	DAH		400
Acrylonitrile	ND	µg/kg as recd	08/30/99	DAH		400

ND = Not Detected
MDL = Method Detection Limit

APPENDIX I1

CHAIN OF CUSTODY
(AIR SAMPLING)

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

No [illegible]6553

Page 1 of 1

Contact Person [illegible]
Company [illegible]
Address [illegible] City [illegible] State [illegible] Zip [illegible]
Phone [illegible] FAX
Collected By: Signature [illegible]

Project info:
P.O. # 96699
Project #
Project Name Bryant Mill Road
Kalamazoo Superfund Site

Turn Around Time:
☐ Normal
☒ Rush Less than 5 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	092398-B1-1	9/23/98 (8:13)	PCB (Method T-04)			
	092398-B2-1	↓	↓			
	092398-B5-1 SW					
	092398-B4-1					
	092398-B6-1					
	092398-TB-1					

Relinquished By: (Signature) Date/Time Print Name
[illegible]
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

Form 1293 rev 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

No [illegible]6555

CHAIN-OF-CUSTODY RECORD

Contact Person: Gopa Nair / Joe Martini
Company: Roy F. Weston, Inc.
Address: 266 E. Alcott St. City: Kalamazoo State: MI Zip: 49001
Phone: (616) 216-7008 FAX:
Collected By: Signature: [illegible]

Project info:
P.O. #: 76699
Project #:
Project Name: Bryant Mill Pond
Kalamazoo River Superfund Site

Turn Around Time:
☐ Normal
☒ Rush: Less than 5 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	092498 B1 2	9/24/98 (2hrs)	PCB (Method T 04)			
	092498 B2 2	↓	↓			
	092498 B4 2	↓	↓			
	092498 B5 2	↓	↓			
	092498 B6 2	↓	↓			

Relinquished By: (Signature) Date/Time: [illegible] 1/1/98 2 pm Print Name: [illegible]
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

93 rev 06

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 48 hrs
DATE
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 10/1/98 Purchase Order No. 96867
Company Name R.W. F. WESTON INC.
Address 266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GOPA NAIR
Telephone (616) 373-7008
Fax Telephone (616) 373-7010
Billing Address (if different from above)
R.W. F. WESTON INC. ATTN: MATT CRAIN
3 HAWTHORN PKWY SUITE 400
VERNON HILLS, IL 60061

Quote No.
Sample Collection
Sampling Site KALAMAZOO RIVER SUPERFUND
Industrial Process
Date of Collection 10/1/98
Time Collected 1726
Date of Shipment 10/1/98
QC Requirements ☑ Standard ☐ Other
Collector's Name GOPA NAIR
Signature

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	100198-FB	AIR	-	PCE ANALYSIS - NIOSH 1500
	100198-FB	"	-	

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

N° 016554

Page 1 of 1

Contact Person: [illegible]
Company: [illegible]
Address: [illegible] City: [illegible] State: MI Zip: [illegible]
Phone: [illegible] FAX: (616) 373-[illegible]
Collected By: Signature: [illegible]

Project Info:
P.O. #
Project #
Project Name: Kalamazoo River Superfund Site

Turn Around Time:
☐ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	100198-PN-1	10/1/98	[illegible]			
	100198-PS-1	↓	↓			
	100198-PE-1	↓	↓			
	100198-PW-1	↓	↓			
	100198-PR-1	↓	↓			
	100198-TB-1	↓	↓			

Relinquished By: (Signature) Date/Time [illegible] Print Name
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

293 rev. 06

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 48 hrs (DATE)
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 10/2/98 Purchase Order No. 96867
Company Name ROY F. WESTON INC.
Address 246 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GOPA NAIR
Telephone (616) 372-7008
Fax Telephone (616) 372-7010
Billing Address (if different from above)
ROY F. WESTON, INC. ATTN: MATT CRAIN
2 LAWTHORN PKWY, SUITE 400
VERNON HILLS, IL 60061

Quote No.
Sample Collection
Sampling Site Allied Paper (Kalamazoo)
Industrial Process
Date of Collection 10/2/98
Time Collected
Date of Shipment 10/2/98
QC Requirements ☒ Standard ☐ Other
Collector's Name Gene Kurtz
Signature

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	10098-PF1	Air		PCB ANALYSIS (NIOSH 5503)
	10098-PF2	Air		
	10098-TB1	Trip Blank		

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	10/2/98		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

NO. 016556

Page 1 of 1

Contact Person _____
Company _____
Address _____ City _____ State ___ Zip ___
Phone _____ FAX _____
Collected By: Signature _____

Project Info:
P.O. # _____
Project # _____
Project Name _____

Turn Around Time:
☒ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

193 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

No. 017069

Contact Person: GOPA NAIR
Company: ROY F. WESTON, INC.
Address: 266 E. ALCOTT ST. City: KALAMAZOO State: MI Zip: 49001
Phone: (616) 373-7009 FAX: (616) 373-7010
Collected By: Signature: [signature]

Project Info:
P.O. #:
Project #:
Project Name: Allied Paper/ Kalamazoo River Superfund Site

Turn Around Time:
☐ Normal
☒ Rush 3 day
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	100398 - PE-3	10/3/98	PCB Analysis (Method T-04)			
	100398 - PW-3					
	100398 - PS-3					
	100398 - PN-3					
	100398 - PR-3					

Relinquished By: (Signature) Date/Time: [signature] 10/5/98 — Print Name:
Relinquished By: (Signature) Date/Time: — Received By: (Signature) Date/Time:
Relinquished By: (Signature) Date/Time: — Received By: (Signature) Date/Time:

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

Form 1293 rev. 06

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 45 hrs
DATE
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 10/5/98 Purchase Order No. 96867
Company Name ROY F. WESTON INC.
Address 266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GODA NAIR
Telephone (616) 373-7009
Fax Telephone (616) 373-7010
Billing Address (if different from above) ROY F. WESTON INC.
MATT CRAIN
3 HAWTHORN PKWY SUITE 400
VERNON HILLS
IL 60061

Quote No.
Sample Collection
Sampling Site KALAMAZOO [illegible]
Industrial Process
Date of Collection 10/2/98
Time Collected
Date of Shipment 10/5/98
QC Requirements ☒ Standard ☐ Other
Collector's Name Goda Nair
Signature [signature]

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	100398-PB3	Air		PB ANALYSIS - NIOSH 5503
	100398-PB3	"		"

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	10/5/98		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATACHEM LABORATORIES – A SORENSON COMPANY

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

No. 017070

CHAIN-OF-CUSTODY RECORD

Contact Person

Company

Address City State Zip

Phone FAX

Collected By: Signature

Project Info:

P.O. #

Project #

Project Name

Turn Around Time:

☐ Normal

☑ Rush ____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

N° 16568

Page 1 of 1

Contact Person _____
Company _____
Address _____ City _____ State _____ Zip _____
Phone _____ FAX _____
Collected By: Signature _____

Project Info:
P.O. # _____
Project # _____
Project Name _____

Turn Around Time:
☐ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

293 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

Nº [illegible]

Contact Person [illegible]
Company [illegible]
Address [illegible] City [illegible] State [illegible] Zip [illegible]
Phone [illegible] FAX [illegible]
Collected By: Signature [illegible]

Project Info:
P.O. # _____
Project # _____
Project Name [illegible]

Turn Around Time:
☐ Normal
☑ Rush [illegible] Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	[illegible]	[illegible]	[illegible]			
	[illegible]					
	[illegible]					
	[illegible]					
	[illegible]					
	[illegible]					

Relinquished By: (Signature) Date/Time [illegible] Print Name
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

Form 1293 rev. 06

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 24 hrs (DATE)
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 10/8/98 Purchase Order No. _____ Quote No. _____

Company Name Roy F. WESTON, INC.

Address 616 E. ALCOTT ST.
KALAMAZOO, MI 49001

Person to Contact GOPA NAIR

Telephone (616) 372-7009

Fax Telephone (616) 372-7010

Billing Address (if different from above)
ROY F. WESTON, INC. (ATTN: MATT CRAIN)
2 HAWTHORN PKWY, SUITE 400
VERNON HILLS IL 60061

Sample Collection

Sampling Site Allied Paper / Kalamazoo River Superfund Site

Industrial Process _____

Date of Collection 10/7/98 & 10/8/98

Time Collected _____

Date of Shipment 10/9/98

QC Requirements ☒ Standard ☐ Other _____

Collector's Name Gopa Nair

Signature [signature]

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	100798-PL1-1	AIR		Lead (NIOSH 7300)
	100798-PL2-1	↓		↓
	100898-PL1-2	↓		↓
	100898-PL2-2	↓		↓
	100898-PL-TB1	↓		↓

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	1600 10/8/98		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

No. 817071

Page 1 of 1

Contact Person
Company
Address City State Zip
Phone FAX
Collected By: Signature

Project Info:
P.O. #
Project #
Project Name

Turn Around Time:
☐ Normal
☒ Rush 3 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

Form 1293 rev. 08

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 24 hrs (DATE)
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 10/9/98 Purchase Order No. _____
Company Name ROY F. WESTON, INC.
Address 226 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GOPA NAIR
Telephone (616) 373-7009
Fax Telephone (616) 372-7010
Billing Address (if different from above)
ROY F. WESTON (ATTN: MATT CRAIN)
3 HAWTHORN PKWY, SUITE 400
VERNON HILLS IL 60061

Quote No. _____
Sample Collection
Sampling Site ALLIED PAPER / KALAMAZOO R. SUPERFUND
Industrial Process _____
Date of Collection 10/9/98
Time Collected _____
Date of Shipment 10/9/98
QC Requirements ☑ Standard ☐ Other _____
Collector's Name GOPA NAIR
Signature Gopa Nair

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	100998-PL1-3	AIR		LEAD ANALYSIS (NIOSH 7300)
	100998-PL2-3	AIR		"

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Gopa Nair	1450 10/9/98		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATACHEM LABORATORIES – A SORENSON COMPANY

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

No. 18571

Page 1 of 1

Contact Person
Company
Address City State Zip
Phone FAX
Collected By: Signature

Project Info:
P.O. #
Project #
Project Name

Turn Around Time:
☐ Normal
☒ Rush 3 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

Form 1293 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

N° 016582

Contact Person
Company
Address City State Zip
Phone FAX
Collected By: Signature

Project Info:
P.O. #
Project #
Project Name

Turn Around Time:
☐ Normal
☑ Rush 2 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

293 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

No. 16584

Page 1 of 1

Contact Person _____

Company _____

Address _____ City _____ State _____ Zip _____

Phone _____ FAX _____

Collected By: Signature _____

Project info:

P.O. # _____

Project # _____

Project Name _____

Turn Around Time:

☐ Normal

☒ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time _____ Print Name _____

Relinquished By: (Signature) Date/Time _____ Received By: (Signature) Date/Time _____

Relinquished By: (Signature) Date/Time _____ Received By: (Signature) Date/Time _____

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

Form 1293 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

No. 16573

Contact Person [illegible]
Company [illegible]
Address [illegible] City [illegible] State [illegible] Zip [illegible]
Phone [illegible] FAX [illegible]
Collected By: Signature [illegible]

Project Info:
P.O. # _____
Project # _____
Project Name [illegible]

Turn Around Time:
☐ Normal
☒ Rush 2 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	[illegible]	[illegible]	[illegible]			
	[illegible]	[illegible]	[illegible]			
	[illegible]	[illegible]	[illegible]			
	[illegible]	[illegible]	[illegible]			

Relinquished By: (Signature) Date/Time [illegible] Print Name [illegible]
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

N° 016570

Page 1 of 1

Contact Person
Company
Address City State Zip
Phone FAX
Collected By: Signature

Project Info:
P.O. #
Project #
Project Name

Turn Around Time:
☐ Normal
☐ Rush Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt

Relinquished By: (Signature) Date/Time Print Name

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes:

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
						Yes No None N/A	

Form 1293 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

Nº 16585

Page 1 of 1

Contact Person [illegible]
Company [illegible]
Address [illegible] City [illegible] State MI Zip [illegible]
Phone [illegible] FAX [illegible]
Collected By: Signature [illegible]

Project Info:
P.O. #
Project #
Project Name [illegible]

Turn Around Time:
☐ Normal
☑ Rush 3 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	022377-PR-15	[illegible]	PCBs ([illegible])			
	022377-PW-15	[illegible]	↓			

Relinquished By: (Signature) Date/Time [illegible] Print Name
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time Received By: (Signature) Date/Time

Notes: PLEASE SEND THE RESULTS [illegible] THE ORIGINAL [illegible] THE [illegible]

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
							Yes No None N/A	

93 rev. 06

AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX: (916) 985-1020

CHAIN-OF-CUSTODY RECORD

Nº [redacted]

Contact Person: GOPA NAIR
Company: ROY F. WESTON, INC.
Address: 266 E. ALCOTT ST. City: KALAMAZOO State: MI Zip: 49001
Phone: (616) 373-7009 FAX: (616) 373-7010
Collected By: Signature: [signature]

Project info:
P.O. #:
Project #:
Project Name: ALLIED PAPER KALAMAZOO RIVER SUPERFUND

Turn Around Time:
☐ Normal
☒ Rush 3 days
Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	022499-PR-16	2/24/99	PCBs (Method T-04)			
	022499-PN-16	↓				

Relinquished By: (Signature) Date/Time 1350 Print Name
[signature] 2/25/99
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time

Notes: PLEASE SEND THE RESULTS INCLUDING ORIGINALS TO THE ADDRESS ABOVE

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Date/Time	Temp. (°C)	Condition	Custody Seals Intact? Yes No None N/A	Work Order #

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 7/20/99 (24 hrs)
DATE
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 7/19/99 Purchase Order No. _____
Company Name ROY F. WESTON, INC.
Address 266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GOPA NAIR / DAVE ENNIS
Telephone (616) 373-7008
Fax Telephone (616) 373-7010
Billing Address (if different from above) ATTN: MATT CRAIN
3 HAWTHORN PKWY, SUITE 400
VERNON HILLS, IL 60061

Quote No. _____
Sample Collection
Sampling Site ALLIED PAPER / KALAMAZOO RIVER SUPERF.
Industrial Process _____
Date of Collection 7/19/99
Time Collected _____
Date of Shipment 7/19/99
QC Requirements ☒ Standard ☐ Other _____
Collector's Name GOPA NAIR / MIKE ONDRACHE
Signature [signature]

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	071999-FT-01	Air/Flour-asil Tube	56.32	PCBs (NIOSH 5503)
	071999-FT-02	Air/Flour Tube	61.38	PCBs (NIOSH 5503)
	071999-FT-BLANK	Air/Flour Tube	Blank	PCBs ~~(TO-10)~~ (NIOSH 5503)
	071999-PS-01	PUF/Air	~~1327.73~~ 1371.86	PCBs (TO-10)
	071999-PR-01	↓	1302.95	↓
	071999-PB-01	↓	Blank	↓

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	7/19/99 01700		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATACHEM LABORATORIES – A SORENSON COMPANY

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY (DATE) 2 days TAT
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 7/20/99 Purchase Order No. _____
Company Name ROY F. WESTON, Inc.
Address 266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GOPA NAIR / DAVE ENNIS
Telephone (616) 373-7008
Fax Telephone (616) 373-7010
Billing Address (if different from above) ATTN: MATT CRAIN
3 HAWTHORN PKWY, SUITE 400
VERNON HILLS, IL 60061

Quote No. _____
Sample Collection
Sampling Site ALLIED PAPER / KALAMAZOO SUPERFUND
Industrial Process _____
Date of Collection 7/20/99
Time Collected _____
Date of Shipment 7/20/99
QC Requirements ☒ Standard ☐ Other _____
Collector's Name GOPA NAIR
Signature _____

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	072099-FT-01	Flowrate Tube	51.24	PCBs (NIOSH 5503)
	072099-FT-02	Flowrate Tube	55.93	PCBs (NIOSH 5503)
	072099-PE-02	PUF	1022.92	PCBs (TO-10)
	072099-PR-02	PUF	1098.83	PCBs (TO-10)

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	7/20/99 1700		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATACHEM LABORATORIES – A SORENSON COMPANY

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 2 days (DATE)
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 7/27/95 Purchase Order No. _____
Company Name ROY F. WESTON, INC.
Address 466 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact GOPA NAIR / DAVE ENNIS
Telephone (616) 373-7008
Fax Telephone (616) 373-7010
Billing Address (if different from above) ATTN: MATT CRAIN
2 HAWTHORN PKWY SUITE 400
VERNON HILLS, IL 60061

Quote No. _____
Sample Collection
Sampling Site ALLIED PAPER / KALAMAZOO SUPERFUND
Industrial Process _____
Date of Collection 7/22/95
Time Collected _____
Date of Shipment 7/24/95
QC Requirements ☒ Standard ☐ Other _____
Collector's Name GOPA NAIR
Signature _____

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	072299-FT-01	Air/Flow Tube	56.69	PCBs (NIOSH 5503)
	072299-FT-02	Flow Tube	52.96	PCBs (NIOSH 5503)
	072299-PR-03	PUF/Air	1280.13	PCBs (TO-10)
	072299-PW-03	PUF/Air	1302.43	PCBs (TO-10)

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	7/27/95		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 24 hrs (DATE)
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 7/27/99 Purchase Order No. _____ Quote No. _____

Company Name Roy F. WESTON, INC

Address 266 E. ALCOTT ST.
KALAMAZOO, MI 49001

Person to Contact GOPA NAIR / DAVE ENNIS

Telephone (616) 373-7008

Fax Telephone (616) 373-7010

Billing Address (if different from above) ATTN: MATT CRAIN
3 HAWTHORN PKWY, SUITE 400
VERNON HILLS, IL 60061

Sample Collection

Sampling Site Allied Paper / Kalamazoo, MI Site

Industrial Process _____

Date of Collection 7/27/99

Time Collected _____

Date of Shipment 7/27/99

QC Requirements ☒ Standard ☐ Other _____

Collector's Name Gopa Nair

Signature Gopa Nair

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	072799-FT-01	Flowrate Tube	68.32	PCBs (NIOSH 5503)
	072799-FT-02	Flowrate Tube	61.70	PCBs (NIOSH 5503)
	072799-ST-PR-01	PUF	1474.40	PCBs (T-10)
	072799-ST-PN-01	PUF	1510.50	PCBs (T-10)

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Gopa Nair	7/27/99 1730		
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATACHEM LABORATORIES – A SORENSON COMPANY

DISTRIBUTION: WHITE–LABORATORY COPY CANARY–CUSTOMER COPY

DATA CHEM LABORATORIES
A SORENSON COMPANY

ANALYTICAL REQUEST FORM

☐ **REGULAR Status (10 working days from receipt)**

☒ **RUSH Status Required -ADDITIONAL CHARGE**
RESULTS REQUIRED BY 2 days
DATE
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

Date 7/28/99 Purchase Order No. _____
Company Name Roy F. WESTON INC.
Address 266 E. ALCOTT ST.
KALAMAZOO, MI 49001
Person to Contact: GOPA NAIR / DAVE ENNIS
Telephone (616) 373-7008
Fax Telephone (616) 373-7010
Billing Address (if different from above)
3 HAWTHORN PKWY #400
VERNON HILLS, IL 60061

Quote No. _____
Sample Collection
Sampling Site Allied Paper / Kalamazoo superfund
Industrial Process _____
Date of Collection 7/28/99
Time Collected _____
Date of Shipment 7/28/99
QC Requirements ☒ Standard ☐ Other _____
Collector's Name Gopa Nair
Signature Gopa Nair

REQUEST FOR ANALYSES

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
	072899-FT-01	Flowsil Tube	62.96	PCBs (NIOSH 5503)
	072899-FT-02	Flowsil Tube	66.20	PCBs (NIOSH 5503)
	072899-ST-PW-C2	PUF	1212.62	PCBs (TO-10)
	072899-ST-PB-C2	PUF	1219.72	PCBs (TO-10)

CHAIN OF CUSTODY

Relinquished by Signature	Date/Time	Received by (Signature)	Date/Time
Gopa Nair	7/28/99 1715		
Relinquished by Signature	Date/Time	Received by (Signature)	Date/Time

4388 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATA CHEM LABORATORIES
A SCRENSON COMPANY

ANALYTICAL REQUEST FORM

☐ REGULAR Status (10 working days from receipt)

☒ RUSH Status Required -ADDITIONAL CHARGE
RESULTS REQUIRED BY 2 days (DATE)
CONTACT DATACHEM LABS PRIOR TO SENDING SAMPLES

RUSH

Date 7/29/99 Purchase Order No. _____ Quote No. _____

Company Name Roy F. Weston, Inc.
Address 266 E. Alcott St.
Kalamazoo, MI 49001
Person to Contact Gopa Nair / Dave Ennis
Telephone (616) 373-7008
Fax Telephone (616) 373-7010
Billing Address (if different from above) D-2
3 Hawthorn Pkwy # 400
Vernon Hills, IL 60061

Sample Collection
Sampling Site Kalamazoo River Superfund
Industrial Process _____
Date of Collection 7/29/99
Time Collected _____
Date of Shipment 7/29/99
QC Requirements ☒ Standard ☐ Other _____
Collector's Name Gopa Nair
Signature Gopa Nair

REQUEST FOR ANALYSES 99-C-4355

Laboratory Use Only	Client Sample Number	Media Type*	Sample Volume (Liters)	ANALYSES REQUESTED – Use Method Number if Known
26159	072999-FT-01	Fluoride Tube	59.94	PCBs (NIOSH 5503)
26160	072999-FT-02	↓	61.85	↓
26161	072999-FB-01	↓		↓
26162	072999-ST-PB-03	PUF	1369.82	PCBs (To-10)
26163	072999-ST-PN-03	↓	1368.74	↓
26164	072999-ST-PB-01	↓		↓

CHAIN OF CUSTODY

Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Gopa Nair	7/29/99	[illegible] (FCCL)	7/30/99 10:32
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

4366 Glendale Milford Road / Cincinnati, OH 45242 800-458-1493 or 513-733-5336 / FAX: 513-733-5347

DATACHEM LABORATORIES – A SCRENSON COMPANY

DISTRIBUTION: WHITE-LABORATORY COPY CANARY-CUSTOMER COPY

APPENDIX I2

AIR ANALYTICAL DATA

AIR ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	PCB ($\mu g/m^3$)
092398-B1-1	Air Perimeter	9/23/98	Air Toxics	ND
092398-B2-1	Air Perimeter	9/23/98	Air Toxics	ND
092398-B5-1	Air Perimeter	9/23/98	Air Toxics	ND
092398-B4-1	Air Perimeter	9/23/98	Air Toxics	ND
092398-B6-1	Air Perimeter	9/23/98	Air Toxics	ND
092398-TB-1	Air Perimeter	9/23/98	Air Toxics	ND
092498-B1-2	Air Perimeter	9/24/98	Air Toxics	ND
092498-B2-2	Air Perimeter	9/24/98	Air Toxics	ND
092498-B4-2	Air Perimeter	9/24/98	Air Toxics	5.41
092498-B5-2	Air Perimeter	9/24/98	Air Toxics	ND
092498-B6-2	Air Perimeter	9/24/98	Air Toxics	ND
100198-P1	Air Personnel	10/1/98	Data Chem	ND
100198-P2	Air Personnel	10/1/98	Data Chem	ND
100198-PN-1	Air Perimeter	10/1/98	Air Toxics	ND
100198-PS-1	Air Perimeter	10/1/98	Air Toxics	6.0
100198-PE-1	Air Perimeter	10/1/98	Air Toxics	7.07
100198-PW-1	Air Perimeter	10/1/98	Air Toxics	ND
100198-PR-1	Air Perimeter	10/1/98	Air Toxics	ND
100198-TB-1	Trip Blank	10/1/98	Air Toxics	ND
100298-P1-2	Air Personnel	10/2/98	Data Chem	ND
100298-P2-2	Air Personnel	10/2/98	Data Chem	ND
100298-TB1	Trip Blank	10/2/98	Data Chem	ND
100298-PE-2	Air Perimeter	10/2/98	Air Toxics	10.5
100298-PW-2	Air Perimeter	10/2/98	Air Toxics	7.02
100298-PS-2	Air Perimeter	10/2/98	Air Toxics	ND
100298-PN-2	Air Perimeter	10/2/98	Air Toxics	ND
100298-PR-2	Air Perimeter	10/2/98	Air Toxics	4.26
100398-PE-3	Air Perimeter	10/3/98	Air Toxics	10.1
100398-PW-3	Air Perimeter	10/3/98	Air Toxics	ND
100398-PS-3	Air Perimeter	10/3/98	Air Toxics	ND
100398-PN-3	Air Perimeter	10/3/98	Air Toxics	ND
100398-PR-3	Air Perimeter	10/3/98	Air Toxics	ND
100398-P1-3	Air Personnel	10/3/98	Data Chem	ND
100398-P2-3	Air Personnel	10/3/98	Data Chem	ND
100598-PE-4	Air Perimeter	10/5/98	Air Toxics	7.17
100598-PW-4	Air Perimeter	10/5/98	Air Toxics	ND
100598-PS-4	Air Perimeter	10/5/98	Air Toxics	ND
100598-PN-4	Air Perimeter	10/5/98	Air Toxics	ND
100598-PR-4	Air Perimeter	10/5/98	Air Toxics	ND
100598-TB-2	Trip Blank	10/5/98	Air Toxics	ND
100698-PE-5	Air Perimeter	10/6/98	Air Toxics	ND
100698-PW-5	Air Perimeter	10/6/98	Air Toxics	ND
100698-PS-5	Air Perimeter	10/6/98	Air Toxics	ND
100698-PN-5	Air Perimeter	10/6/98	Air Toxics	ND
100698-PR-5	Air Perimeter	10/6/98	Air Toxics	ND
100798-PE-6	Air Perimeter	10/7/98	Air Toxics	ND
100798-PW-6	Air Perimeter	10/7/98	Air Toxics	14.5
100798-PS-6	Air Perimeter	10/7/98	Air Toxics	14.2

AIR ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	PCB ($\mu g/m^3$)
100798-PN-6	Air Perimeter	10/7/98	Air Toxics	ND
100798-PR-6	Air Perimeter	10/7/98	Air Toxics	ND
100798-TB-3	Trip Blank	10/7/98	Air Toxics	ND
100798-PL1-1	Air Personnel	10/7/98	Data Chem	ND
100798-PL2-1	Air Personnel	10/7/98	Data Chem	ND
100898-PL1-2	Air Personnel	10/8/98	Data Chem	ND
100898-PL2-2	Air Personnel	10/8/98	Data Chem	ND
100898-PL-TB1	Air Personnel	10/8/98	Data Chem	ND
100898-PE-7	Air Perimeter	10/8/98	Air Toxics	4.75
100898-PW-7	Air Perimeter	10/8/98	Air Toxics	ND
100898-PS-7	Air Perimeter	10/8/98	Air Toxics	ND
100898-PN-7	Air Perimeter	10/8/98	Air Toxics	ND
100898-PR-7	Air Perimeter	10/8/98	Air Toxics	ND
100998-PL1-3	Air Personnel	10/9/98	Data Chem	ND
100998-PL2-3	Air Personnel	10/10/98	Data Chem	ND
100998-PE-8	AirPerimeter	10/9/98	Air Toxics	ND
100998-PW-8	AirPerimeter	10/9/98	Air Toxics	ND
100998-PS-8	AirPerimeter	10/9/98	Air Toxics	ND
100998-PN-8	AirPerimeter	10/9/98	Air Toxics	ND
100998-PR-8	AirPerimeter	10/9/98	Air Toxics	ND
100998-TB-4	Trip Blank	10/9/98	Air Toxics	ND
101098-PE-9	Air Perimeter	10/10/98	Air Toxics	5.76
101098-PW-9	Air Perimeter	10/10/98	Air Toxics	ND
101098-PS-9	Air Perimeter	10/10/98	Air Toxics	ND
101098-PN-9	Air Perimeter	10/10/98	Air Toxics	ND
101098-PR-9	Air Perimeter	10/10/98	Air Toxics	ND
101298-PE-10	Air Perimeter	10/12/98	Air Toxics	6.47
101298-PW-10	Air Perimeter	10/12/98	Air Toxics	ND
101298-PS-10	Air Perimeter	10/12/98	Air Toxics	ND
101298-PN-10	Air Perimeter	10/12/98	Air Toxics	ND
101298-PR-10	Air Perimeter	10/12/98	Air Toxics	10.1
101298-TB-5	Trip Blank	10/12/98	Air Toxics	ND
110398-PS-11	Air Perimeter	11/3/98	Air Toxics	ND
110398-PR-11	Air Perimeter	11/3/98	Air Toxics	ND
110398-TB-6	Trip Blank	11/3/98	Air Toxics	ND
110498-PS-12	Air Perimeter	11/4/98	Air Toxics	ND
110498-PR-12	Air Perimeter	11/4/98	Air Toxics	ND
110598-PR-13	Air Perimeter	11/5/98	Air Toxics	ND
110598-PS-13	Air Perimeter	11/5/98	Air Toxics	ND
022299-PR-14	Air Perimeter	2/22/99	Air Toxics	ND
022299-PW-14	Air Perimeter	2/22/99	Air Toxics	ND
022299-TB-7	Trip Blank	2/22/99	Air Toxics	ND
022399-PR-15	Air Perimeter	2/23/99	Air Toxics	ND
022399-PW-15	Air Perimeter	2/23/99	Air Toxics	ND
022499-PR-16	Air Perimeter	2/24/99	Air Toxics	ND
022499-PN-16	Air Perimeter	2/24/99	Air Toxics	ND
071999-FT-01	Air Personnel	7/19/99	DataChem	ND
071999-FT-02	Air Personnel	7/19/99	DataChem	ND

AIR ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	PCB ($\mu g/m^3$)
071999-FT-03	Air Personnel	7/19/99	DataChem	ND
071999-PS-01	Air Perimeter	7/19/99	DataChem	ND
071999-PR-01	Air Perimeter	7/19/99	DataChem	ND
071999-PB-01	Air Perimeter	7/19/99	DataChem	ND
072099-FT-01	Air Personnel	7/20/99	DataChem	ND
072099-FT-02	Air Personnel	7/20/99	DataChem	ND
072099-PE-02	Air Perimeter	7/20/99	DataChem	ND
072099-PR-02	Air Perimeter	7/20/99	DataChem	ND
072299-FT-01	Air Personnel	7/22/99	DataChem	ND
072299-FT-02	Air Personnel	7/22/99	DataChem	ND
072299-PR-03	Air Perimeter	7/22/99	DataChem	ND
072299-PW-03	Air Perimeter	7/22/99	DataChem	ND
072799-FT-01	Air Personnel	7/27/99	DataChem	ND
072799-FT-02	Air Personnel	7/27/99	DataChem	ND
072799-ST-PR-01	Air Perimeter	7/27/99	DataChem	0.07
072799-ST-PN-01	Air Perimeter	7/27/99	DataChem	0.07
072899-FT-01	Air Personnel	7/28/99	DataChem	ND
072899-FT-02	Air Personnel	7/28/99	DataChem	ND
072899-ST-PW-02	Air Perimeter	7/28/99	DataChem	0.16
072899-ST-PR-02	Air Perimeter	7/28/99	DataChem	0.08
072999-FT-01	Air Personnel	7/29/99	DataChem	ND
072999-FT-02	Air Personnel	7/29/99	DataChem	ND
072999-FB-01	Air Personnel	7/29/99	DataChem	ND
072999-ST-PR-03	Air Perimeter	7/29/99	DataChem	0.15
072999-ST-PN-03	Air Perimeter	7/29/99	DataChem	0.22
072999-ST-PB-01	Air Perimeter	7/29/99	DataChem	ND

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9809345

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Bryant Mill Pond Kalamazoo Superfund Site	
DATE RECEIVED:	9/25/98		
DATE COMPLETED:	10/2/98		

FRACTION #	NAME	TEST
01A	092398-B1-	TO-4
02A	092398-B2-	TO-4
03A	092398-B5-	TO-4
04A	092398-B4-	TO-4
05A	092398-B6-	TO-4
06A	092398-TB-	TO-4
07A	Lab Blank	TO-4

CERTIFIED BY: John Swanson for DATE: 10-2-98

Laboratory Director

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B, FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 092398-B1-1

ID#: 9809345-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8093013**	**Date of Collection: 9/23/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/29/98**
		Date of Analysis: 10/1/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	92	50-150
2,4,5,6-Tetrachloro-m-xylene	127	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092398-B2-1

ID#: 9809345-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8093014**	**Date of Collection:**	**9/23/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**9/29/98**
		Date of Analysis:	**10/1/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	99	50-150
2,4,5,6-Tetrachloro-m-xylene	142	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092398-B5-1

ID#: 9809345-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8093015**	**Date of Collection: 9/23/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/29/98**
		Date of Analysis: 10/1/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	91	50-150
2,4,5,6-Tetrachloro-m-xylene	150	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092398-B4-1

ID#: 9809345-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8093016**	**Date of Collection: 9/23/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/29/98**
		Date of Analysis: 10/1/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	108	50-150
2,4,5,6-Tetrachloro-m-xylene	145	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092398-B6-1

ID#: 9809345-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8093017	Date of Collection: 9/23/98
Dil. Factor:	1.0	Date of Extraction: 9/29/98
		Date of Analysis: 10/1/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	123	50-150
2,4,5,6-Tetrachloro-m-xylene	176 Q	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092398-TB-1

ID#: 9809345-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8093018**	**Date of Collection:**	**9/23/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**9/29/98**
		Date of Analysis:	**10/1/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	112	50-150
2,4,5,6-Tetrachloro-m-xylene	133	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9809345-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8093012**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 9/29/98**
		Date of Analysis: 10/1/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	104	50-150
2,4,5,6-Tetrachloro-m-xylene	114	50-150

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9809354

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Bryant Mill Pond Kalamazoo River Superfund Site	
DATE RECEIVED:	9/25/98		
DATE COMPLETED:	10/8/98		

FRACTION #	NAME	TEST
01A	092498 B1-2	TO-4
02A	092498 B2-2	TO-4
03A	092498 B4-2	TO-4
03AA	092498 B4-2	TO-4
04A	092498 B5-2	TO-4
05A	092498 B6-2	TO-4
06A	LCS	TO-4
07A	Lab Blank	TO-4

CERTIFIED BY: John Swanson for; DATE: 10-9-98

Laboratory Director

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 092498 B1-2

ID#: 9809354-01A

EPA METHOD TO-4

Polychlorinated Biphenyls in Ambient Air

GC/ECD

File Name:	**8100709**	**Date of Collection:**	**9/24/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**9/30/98**
		Date of Analysis:	**10/7/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	130	50-150
2,4,5,6-Tetrachloro-m-xylene	104	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092498 B2-2

ID#: 980935-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100710**	**Date of Collection: 9/24/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/30/98**
		Date of Analysis: 10/7/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	135	50-150
2,4,5,6-Tetrachloro-m-xylene	81	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092498 B4-2

ID#: 9809354-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100711**	**Date of Collection: 9/24/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/30/98**
		Date of Analysis: 10/7/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	1.4
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	157 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	111	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092498 B4-2

ID#: 9809354-03AA

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100712**	**Date of Collection: 9/24/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/30/98**
		Date of Analysis: 10/7/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	1.0
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	115	50-150
2,4,5,6-Tetrachloro-m-xylene	87	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092498 BS-2

ID#: 9809354-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100713**	**Date of Collection: 9/24/98**
Dil. Factor:	1.0	**Date of Extraction: 9/30/98**
		Date of Analysis: 10/7/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	182 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	106	50-150

AIR TOXICS LTD.

SAMPLE NAME: 092498 B6-2

ID#: 9809354-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100714**	**Date of Collection: 9/24/98**
Dil. Factor:	**1.0**	**Date of Extraction: 9/30/98**
		Date of Analysis: 10/7/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	104	50-150
2,4,5,6-Tetrachloro-m-xylene	82	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9809354-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100715**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 9/30/98**
		Date of Analysis: 10/7/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016/1242	1.0	88
Aroclor 1221	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	Not Spiked

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	109	50-150
2,4,5,6-Tetrachloro-m-xylene	159 Q	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9809354-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8100708	**Date of Collection:**	NA
Dil. Factor:	1.0	**Date of Extraction:**	9/30/98
		Date of Analysis:	10/7/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016/1242	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	86	50-150
2,4,5,6-Tetrachloro-m-xylene	95	50-150

DATA CHEM LABORATORIES
A SCIENSON COMPANY

10/5/98

Submitted To: Gopa Nair
Roy F. Weston, Inc.
256 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Kalamazoo River Superfund Site
Sample Type:	Air
Client Sample No.:	100198-P1 through 100198-P2
PO #:	96867
Method Reference:	NIOSH 5503
Sample Set ID#:	98-C-6274
DATACHEM Lab No.:	98-38709 through 98-38710
Preparation Date:	10/02/98
Analysis Date:	10/02/98

The samples were prepared for analysis by desorption in hexane.

The analysis was performed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-5 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Leah Sherman
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
360 WEST LeVOY DRIVE
SALT LAKE CITY UTAH 84123-2547
801 266-7700 FAX 801 268-9992

CINCINNATI OFFICE
4466 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336 FAX 513 733-5347

MARYLAND OFFICE
17624 MACDUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1987 FAX 301 924-1581

96-C-6274

DATA TABLE
µg/sample

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
100198-P1	98-38709	ND	ND	ND	ND	ND	ND	ND
100198-P2	98-38710	ND	ND	ND	ND	ND	ND	ND
	QC 8046	ND	ND	ND	ND	ND	.15	ND
	Limit of Detection	.05	.1	.05	.05	.05	.05	.05

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
100198-P1	98-38709	<1.3	<2.6	<1.3	<1.3	<1.3	<1.3	<1.3
100198-P2	98-38710	<1.5	<3.0	<1.5	<1.5	<1.5	<1.5	<1.5

ND indicates below the limit of detection

QC 8046 spiked at .20 µg/sample

Leah Sherman
Analyst

Reviewer

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810064

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Allied Paper Kalamazoo River	
DATE RECEIVED:	10/3/98		
DATE COMPLETED:	10/9/98		

FRACTION #	NAME	TEST
01A	100198-PN-1	TO-4
02A	100198-PS-1	TO-4
03A	100198-PE-1	TO-4
04A	100198-PW-1	TO-4
05A	100198-PR-1	TO-4
06A	100198-TB-1	TO-4
07A	Lab Blank	TO-4

CERTIFIED BY: Brinda D. Thurman
Laboratory Director

DATE: 10/12/98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 100198-PN-1

ID#: 9810064-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100718**	**Date of Collection: 10/1/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/3/98**
		Date of Analysis: 10/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**110**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**72**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100198-PS-1

ID#: 9810064-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100719**	**Date of Collection:**	**10/1/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**10/3/98**
		Date of Analysis:	**10/8/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.6
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	110	50-150
2,4,5,6-Tetrachloro-m-xylene	74	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100198-PE-1

ID#: 9810064-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100720**	**Date of Collection: 10/1/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/3/98**
		Date of Analysis: 10/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.9
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**194 Q**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**126**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100198-PW-1

ID#: 9810064-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100723**	**Date of Collection:**	**10/1/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**10/3/98**
		Date of Analysis:	**10/8/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**102**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**53**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100198-PR-1

ID#: 9810064-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100724**	**Date of Collection: 10/1/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/3/98**
		Date of Analysis: 10/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**215 Q**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**90**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100198-TB-1

ID#: 9810064-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100725**	**Date of Collection: 10/1/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/3/98**
		Date of Analysis: 10/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	98	50-150
2,4,5,6-Tetrachloro-m-xylene	79	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810064-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100716**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/3/98**
		Date of Analysis: 10/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1246	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**138**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**121**	**50-150**

DATA CHEM LABORATORIES
A SCHENSCN COMPANY

10/6/98

Submitted To: Gopa Nair
Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper / Kalamazoo River
Sample Type:	Air
Client Sample No.:	100298-P1-2 through 100298-TB1
PO #:	96867
Method Reference:	NIOSH 5503
Sample Set ID#:	98-C-6306
DATACHEM Lab No.:	98-38874 through 98-38876
Preparation Date:	10/05/98
Analysis Date:	10/05/98

The samples were prepared for analysis by desorption in hexane.

The analysis was performed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-5 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Leah Sherman
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
960 WEST LeVOY DRIVE
SALT LAKE CITY, UTAH 84123-2547
801 266-7700, FAX 801 268-9992

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

MARYLAND OFFICE
17324 MACDUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1967, FAX 301 924-1961

98-C-6306

DATA TABLE
µg/sample

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1246	1254	1260
100298-P1-2	98-38874	ND	ND	ND	ND	ND	ND	ND
100298-P2-2	98-38875	ND	ND	ND	ND	ND	ND	ND
100298-TB1	98-38876	ND	ND	ND	ND	ND	ND	ND
	QC 8047	ND	ND	ND	ND	ND	.16	ND
	Limit of Detection	.05	.1	.05	.05	.05	.05	.05

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
100298-P1-2	98-38874	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
100298-P2-2	98-38875	<.94	<1.9	<.94	<.94	<.94	<.94	<.94
100298-TB1	98-38876	-	-	-	-	-	-	-

ND indicates below the limit of detection

QC 8047 spiked at .20 µg/sample

Leah Sherman
Analyst

Reviewer

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810082

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	~~610-701-7401~~ 616 373 7010	**PROJECT #** Allied Paper / Kalamazoo River	
DATE RECEIVED:	10/5/98		
DATE COMPLETED:	10/12/98		

FRACTION #	NAME	TEST
01A	100298-PE-2	TO-4
02A	100298-PW-2	TO-4
03A	100298-PS-2	TO-4
04A	100298-PN-2	TO-4
04AA	100298-PN-2 Duplicate	TO-4
05A	100298-PR-2	TO-4
06A	LCS	TO-4
07A	Lab Blank	TO-4

CERTIFIED BY: John Swanson for; DATE: 10-13-98

Laboratory Director

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

160 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 100298-PB-2

ID#: 9810082-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101203b**	**Date of Collection: 10/2/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/7/98**
		Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	3.0
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	225 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	143	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100298-PW-2

ID#: 9810082-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8101204b	**Date of Collection: 10/2/98**
Dil. Factor:	1.0	**Date of Extraction: 10/7/98**
		Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	2.0 M
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

M = Reported value may be biased due to apparent matrix interferences.
Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	202 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	138	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100298-PS-2

ID#: 9810082-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101205b**	**Date of Collection: 10/2/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/7/98**
		Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	180 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	144	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100298-PN-2

ID#: 9810082-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8101206b	Date of Collection: 10/2/98
Dil. Factor:	1.0	Date of Extraction: 10/7/98
		Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	142	50-150
2,4,5,6-Tetrachloro-m-xylene	109	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100298-PN-2 Duplicate

ID#: 9810032-04AA

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name: 8101207b
Dil. Factor: 1.0

Date of Collection: 10/2/98
Date of Extraction: 10/7/98
Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	144	50-150
2,4,5,6-Tetrachloro-m-xylene	110	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100298-PR-2

ID#: 9810082-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101208b**	**Date of Collection: 10/2/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/7/98**
		Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.1
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	220 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	118	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810C82-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8100820b	**Date of Collection: NA**
Dil. Factor:	1.0	**Date of Extraction: 10/7/98**
		Date of Analysis: 10/12/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	80
Aroclor 122*	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1242	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	Not Spiked

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	116	50-150
2,4,5,6-Tetrachloro-m-xylene	91	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810082-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100802b**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/7/98**
		Date of Analysis: 10/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	154 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	123	50-150

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810089

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Allied Paper Inc. Kalamazoo River	
DATE RECEIVED:	10/6/98		
DATE COMPLETED:	10/12/98		

FRACTION #	NAME	TEST
01A	100398-PE-3	TO-4
02A	100398-PW-3	TO-4
03A	100398-PS-3	TO-4
04A	100398-PN-3	TO-4
05A	100298-PR-3	TO-4
06A	LCS	TO-4
07A	Lab Blank	TO-4

CERTIFIED BY: _____ for
Laboratory Director

DATE: 10-12-98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5355 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 100398-PE-3

ID#: 9810089-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100812b**	**Date of Collection:**	**10/3/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**NA**
		Date of Analysis:	**10/08/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	2.8
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	96	50-150
2,4,5,6-Tetrachloro-m-xylene	130	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100398-PW-3

ID#: 9810089-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100813b**	**Date of Collection: 10/3/98**
Dil. Factor:	**1.0**	**Date of Extraction: NA**
		Date of Analysis: 10/08/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**120**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**170 Q**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100798-PS-3

ID#: 9810089-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**B100814b**	**Date of Collection: 10/3/98**
Dil. Factor:	**1.0**	**Date of Extraction: NA**
		Date of Analysis: 10/08/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	91	50-150
2,4,5,6-Tetrachloro-m-xylene	170 Q	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100398-PN-3

ID#: 9810089-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8100815b	**Date of Collection:**	10/3/98
Dil. Factor:	1.0	**Date of Extraction:**	NA
		Date of Analysis:	10/08/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	110	50-150
2,4,5,6-Tetrachloro-m-xylene	140	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100398-PR-3

ID#: 9810089-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100822b**	**Date of Collection: 10/3/98**
Dil. Factor:	**1.0**	**Date of Extraction: NA**
		Date of Analysis: 10/09/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	83	50-150
2,4,5,6-Tetrachloro-m-xylene	130	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810089-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100820b**	**Date of Collection:**	**NA**
Dil. Factor:	**1.0**	**Date of Extraction:**	**NA**
		Date of Analysis:	**10/09/98**

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	80

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	91	50-150
2,4,5,6-Tetrachloro-m-xylene	120	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810089-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100802b**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: NA**
		Date of Analysis: 10/08/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	120	50-150
2,4,5,6-Tetrachloro-m-xylene	150	50-150

DATA CHEM
LABORATORIES
A SORENSON COMPANY

10/8/98

Submitted To: Gopa Nair
Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Kalamazoo River Superfund Site
Sample Type:	Air
Client Sample No.:	100398-P1-3 through 100398-P2-3
PO #:	96867
Method Reference:	NIOSH 5503
Sample Set ID#:	98-C-6334
DATACHEM Lab No.:	98-39021 through 98-39022
Preparation Date:	10/07/98
Analysis Date:	10/07/98

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-5 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Leah Sherman
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
960 WEST LeVOY DRIVE
SALT LAKE CITY, UTAH 84123-2547
801 266-7700, FAX 801 268-9992

CINCINNATI OFFICE
4088 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

MARYLAND OFFICE
17624 MACDUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1957, FAX 301 924-1961

LEADING ANALYTICAL CHEMISTRY INTO THE 21ST CENTURY™

DATA TABLE
µg/sample

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
100398-P1-3	98-39021	ND	ND	ND	ND	ND	ND	ND
100398-P2-3	98-39022	ND	ND	ND	ND	ND	ND	ND
	QC 8048	ND	ND	ND	ND	ND	.19	ND
	Limit of Detection	.05	.1	.05	.05	.05	.05	.05

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
100398-P1-3	98-39021	<.92	<1.8	<.92	<.92	<.92	<.92	<.92
100398-P2-3	98-39022	<.90	<1.8	<.90	<.90	<.90	<.90	<.90

ND indicates below the limit of detection

QC 8048 spiked at .20 µg/sample

Leah Sherman
Analyst

Reviewer

@AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810113

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Allied Paper/Kalamazoo River Superfund Site	
DATE RECEIVED:	10/7/98		
DATE COMPLETED:	10/12/98		

FRACTION #	NAME	TEST
01A	100598-PE-4	TO-4
02A	100598-PW-4	TO-4
03A	100598-PS-4	TO-4
03AA	100598-PS-4 Duplicate	TO-4
04A	100598-PN-4	TO-4
05A	100598-PR-4	TO-4
06A	100598-TB-2	TO-4
07A	LCS	TO-4
08A	Lab Blank	TO-4

CERTIFIED BY: _____ for
Laboratory Director

DATE: 10.12.98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 100598-PE-4

ID#: 9810113-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101006b**	**Date of Collection:**	**10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**10/8/98**
		Date of Analysis:	**10/10/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.8
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	92	50-150
2,4,5,6-Tetrachloro-m-xylene	120	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100598-PW-4

ID#: 9810113-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9101007b**	**Date of Collection: 10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/8/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	92	50-150
2,4,5,6-Tetrachloro-m-xylene	160 Q	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100598-PS-4

ID#: 9810113-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101008b**	**Date of Collection: 10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/8/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	100	50-150
2,4,5,6-Tetrachloro-m-xylene	140	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100598-PS-4 Duplicate

ID#: 9810113-03AA

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101009b**	**Date of Collection:**	**10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**10/9/98**
		Date of Analysis:	**10/10/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	84	50-150
2,4,5,6-Tetrachloro-m-xylene	110	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100598-PN-4

ID#: 9810113-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101010b**	**Date of Collection: 10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/8/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	96	50-150
2,4,5,6-Tetrachloro-m-xylene	110	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100598-PR-4

ID#: 9810113-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101011b**	**Date of Collection: 10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/6/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**120**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**170 Q**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100598-TB-2

ID#: 9810113-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101012b**	**Date of Collection: 10/5/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/8/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**99**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**160 Q**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810113-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101004b**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/8/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	69

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	91	50-150
2,4,5,6-Tetrachloro-m-xylene	100	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810113-08A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101003b**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/8/98**
		Date of Analysis: 10/10/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	86	50-150
2,4,5,6-Tetrachloro-m-xylene	92	50-150

@AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810145

Work Order Summary

CLIENT: Mr. Joe Martini
Roy F. Weston, Inc.
1 Weston Way
West Chester, PA 19380-1499

BILL TO: Same

PHONE: 610-701-7227
FAX: 610-701-7401
DATE RECEIVED: 10/8/98
DATE COMPLETED: 10/13/98

P.O. # 96699
PROJECT # Allied Paper Kalamazoo River Superfund Site

FRACTION #	NAME	TEST
01A	100698-PE-5	TO-4
01AA	100698-PE-5 Duplicate	TO-4
02A	100698-PW-5	TO-4
03A	100698-PS-5	TO-4
04A	100698-PN-5	TO-4
05A	100698-PR-5	TO-4
06A	100798-PE-6	TO-4
07A	100798-PW-6	TO-4
08A	100798-PS-6	TO-4
09A	100798-PN-5	TO-4
10A	100798-PR-6	TO-4
11A	100798-TB-3	TO-4
12A	Lab Blank	TO-4
13A	LCS	TO-4

CERTIFIED BY: _____ DATE: 10-14-98
Laboratory Director

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 100698-PE-5

ID#: 9810145-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101224**	**Date of Collection:**	**10/6/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**10/10/98**
		Date of Analysis:	**10/13/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	99	50-150
2,4,5,6-Tetrachloro-m-xylene	119	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100698-PE-5 Duplicate

ID#: 9810145-01AA

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101225**	**Date of Collection: 10/6/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**93**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**124**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100698-PW-5

ID#: 9810145-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101226**	**Date of Collection: 10/6/98**
Dil. Factor:	1.0	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**92**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**115**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100698-PS-5

ID#: 9810145-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101227**	**Date of Collection: 10/6/98**
Dil. Factor:	1.0	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	87	50-150
2,4,5,6-Tetrachloro-m-xylene	117	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100698-PN-5

ID#: 9810145-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101228**	**Date of Collection: 10/6/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	96	50-150
2,4,5,6-Tetrachloro-m-xylene	158 Q	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100698-PR-5

ID#: 9810145-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101229**	**Date of Collection: 10/6/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**91**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**168 Q**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100798-PE-6

ID#: 9810145-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101230**	**Date of Collection: 10/7/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	80	60-150
2,4,5,6-Tetrachloro-m-xylene	99	60-150

AIR TOXICS LTD.

SAMPLE NAME: 100798-PW-6

ID#: 9810145-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101231**	**Date of Collection: 10/7/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	3.7
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	95	50-150
2,4,5,6-Tetrachloro-m-xylene	110	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100798-PS-6

ID#: 9810145-08A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101232**	**Date of Collection: 10/7/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	3.9
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**120**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**132**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100798-PN-6

ID#: 9810145-09A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**S101233**	**Date of Collection: 10/7/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**60**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**97**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100798-PR-6

ID#: 9810145-10A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101234**	**Date of Collection: 10/7/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**103**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**121**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100798-TB-3

ID#: 9810145-11A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101235**	**Date of Collection: 10/7/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	100	50-150
2,4,5,6-Tetrachloro-m-xylene	120	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810145-12A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9101223**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	93	50-150
2,4,5,6-Tetrachloro-m-xylene	106	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810145-13A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101236**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/10/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	88
Aroclor 1221	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1242	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	Not Spiked

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**115**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**114**	**50-150**

DATA CHEM LABORATORIES
A SORENSON COMPANY

10/13/98

Submitted To:
Gopa Nair
Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper/Kalamazoo River Superfund Site
Sample Type:	Filter
Client Sample No.:	100798-PLL-1 through 100898-PL-TB1
PO #:	Not Available
Method Reference:	NIOSH 7300
Sample Set ID#:	98-S-6432
DATACHEM Lab No.:	98-39397 through 98-39401
Preparation Date:	10/12/98
Analysis Date:	10/12/98

The samples were prepared and analyzed in accordance with NIOSH method 7300 using a Perkin Elmer 3000XL (ICP) purged spectrometer.

The results are provided in the enclosed data table.

Shelly Krummen
Analyst

Reviewer

SALT LAKE CITY OFFICE
950 WEST LeVOY DRIVE
SALT LAKE CITY, UTAH 84123-2547
801 266-7700, FAX 801 268-9992

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

MARYLAND OFFICE
17624 MACDUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1567, FAX 301 924-1981

98-S-5432

Lead Results

Client #	DCL #	Volume (L)	ug/Sample	mg/m³
100798-PL1-1	98-39397	1654.	ND	<0.0001
100798-PL2-1	98-39398	1776.	ND	<0.0001
100898-PL1-2	98-39399	1533.	ND	<0.0001
100898-PL2-2	98-39400	1508.	ND	<0.0001
100898-PL-TB1	98-39401	-	ND	-
LOD			0.2	

ND indicates the value is below the limit of detection (LOD)

Shelly Krummen
Analyst

Reviewer

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810182

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Allied Paper Kalamazoo, MI	
DATE RECEIVED:	10/10/98		
DATE COMPLETED:	10/14/98		

FRACTION #	NAME	TEST
01A	100898-PE-7	TO-4
02A	100898-PW-7	TO-4
03A	100898-PS-7	TO-4
04A	100898-PN-7	TO-4
05A	100898-PR-7	TO-4
06A	Lab Blank	TO-4
07A	LCS	TO-4

CERTIFIED BY: _____
Laboratory Director

DATE: 10/14/98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 100898-PE-7

ID#: 9810182-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101241**	**Date of Collection: 10/8/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/11/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.1
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	93	50-150
2,4,5,6-Tetrachloro-m-xylene	111	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100898-PW-7

ID#: 9810182-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101242**	**Date of Collection: 10/8/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/11/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**105**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**128**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100898-PS-7

ID#: 9810182-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101243**	**Date of Collection:**	**10/8/98**
Dil. Factor:	**1.0**	**Date of Extraction:**	**10/11/98**
		Date of Analysis:	**10/13/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**89**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**124**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100898-PN-7

ID#: 9810182-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101244**	**Date of Collection: 10/8/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/11/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**91**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**109**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100898-PR-7

ID#: 9810182-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9101245**	**Date of Collection: 10/8/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/11/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	111	50-150
2,4,5,6-Tetrachloro-m-xylene	140	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810182-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101240**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/11/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**100**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**129**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810182-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101246**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/11/98**
		Date of Analysis: 10/13/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	87
Aroclor 1221	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1242	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	Not Spiked

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	109	50-150
2,4,5,6-Tetrachloro-m-xylene	126	50-150

DATA CHEM LABORATORIES
A SORENSON COMPANY

10/13/98

Submitted To:
Gopa Nair
Roy F. Weston, Inc.
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper/Kalamazoo River Superfund Site
Sample Type:	Filter
Client Sample No.:	100998-PL1-3 through 100998-PL2-3
PO #:	Not Available
Method Reference:	NIOSH 7300
Sample Set ID#:	98-S-6485
DATACHEM Lab No.:	98-39627 through 98-39628
Preparation Date:	10/13/98
Analysis Date:	10/13/98

The samples were prepared and analyzed in accordance with NIOSH method 7300 using a Perkin Elmer 3000XL (ICP) purged spectrometer.

The results are provided in the enclosed data table.

Shelly Krummen
Analyst

Reviewer

SALT LAKE CITY OFFICE
960 WEST LEVOY DRIVE
SALT LAKE CITY, UTAH 84123-2547
801 266-7700, FAX 801 268-9992

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

MARYLAND OFFICE
17624 MACDUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1987, FAX 301 924-1981

98-S-6485

Results
Lead

Client #	DCL #	Volume (L)	Pb µg/sample	Pb mg/m³
100998-PL1-3	98-39627	1467.	ND	<0.0001
100998-PL2-3	98-39628	1504.	ND	<0.0001
LOD			**0.2**	

ND indicates the value is below the limit of detection (LOD)

Shelly Krummen
Analyst

Reviewer

@AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810192

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Allied Paper Kalamazoo Superfund Site	
DATE RECEIVED:	10/12/98		
DATE COMPLETED:	10/15/98		

FRACTION #	NAME	TEST
01A	100998-PE-8	TO-4
02A	100998-PW-8	TO-4
03A	100998-PS-8	TO-4
04A	100998-PN-8	TO-4
05A	100998-PR-8	TO-4
06A	100998-TB-4	TO-4
07A	Lab Blank	TO-4
08A	LCS	TO-4

CERTIFIED BY: _____ DATE: 10-15-98
Laboratory Director

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

AIR TOXICS LTD.

SAMPLE NAME: 100998-PE-8

ID#: 9810192-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101502**	**Date of Collection: 10/9/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**140**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**95**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100998-PW-8

ID#: 9810192-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101503**	**Date of Collection: 10/9/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**115**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**97**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 100998-PS-8

ID#: 9810192-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8101504	**Date of Collection: 10/9/98**
Dil. Factor:	1.0	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	112	50-150
2,4,5,6-Tetrachloro-m-xylene	83	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100998-PN-8

ID#: 9810192-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101505**	**Date of Collection: 10/9/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	89	50-150
2,4,5,6-Tetrachloro-m-xylene	77	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100998-PR-8

ID#: 98:0192-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101506**	**Date of Collection: 10/8/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detectec
Aroclor 1221	1.0	Not Detectec
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	102	50-150
2,4,5,6-Tetrachloro-m-xylene	85	50-150

AIR TOXICS LTD.

SAMPLE NAME: 100998-TB-4

ID#: 9810192-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101507**	**Date of Collection: 10/9/98**
Dil. Factor:	1.0	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	132	60-150
2,4,5,6-Tetrachloro-m-xylene	104	60-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810192-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101501**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	116	50-150
2,4,5,6-Tetrachloro-m-xylene	107	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810192-08A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101508**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/14/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	76
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**112**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**109**	**50-150**

@AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9810205

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Allied Paper/Kalamazoo River Superfund Site	
DATE RECEIVED:	10/13/98		
DATE COMPLETED:	10/16/98		

FRACTION #	NAME	TEST
01A	101098-PE-9	TO-4
02A	101098-PW-9	TO-4
03A	101098-PS-9	TO-4
04A	101098-PN-9	TO-4
05A	101098-PR-9	TO-4
05AA	101098-PR-9 Duplicate	TO-4
06A	101298-PE-10	TO-4
07A	101298-PW-10	TO-4
08A	101298-PS-10	TO-4
09A	101298-PN-10	TO-4
10A	101298-PR-10	TO-4
11A	101298-TB-5	TO-4
12A	LCS	TO-4
13A	Lab Blank	TO-4

CERTIFIED BY: John Swanson for Laboratory Director DATE: 10-16-98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

AIR TOXICS LTD.

SAMPLE NAME: IC1098-PE-9

ID#: 9810205-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101436**	**Date of Collection: 10/10/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.3
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	118	50-150
2,4,5,6-Tetrachloro-m-xylene	97	50-150

AIR TOXICS LTD.

SAMPLE NAME: :01098-PW-9

ID#: 9810205-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101437**	**Date of Collection: 10/10/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	116	50-150
2,4,5,6-Tetrachloro-m-xylene	102	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101098-PS-9

ID#: 9810205-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101436**	**Date of Collection: 10/10/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	117	50-150
2,4,5,6-Tetrachloro-m-xylene	110	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101098-PN-9

ID#: 9810205-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101439**	**Date of Collection: 10/10/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	98	50-150
2,4,5,6-Tetrachloro-m-xylene	84	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101098-PR-9

ID#: 9810205-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101441**	**Date of Collection: 10/10/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	123	50-150
2,4,5,6-Tetrachloro-m-xylene	113	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101098-PR-9 Duplicate

ID#: 9810205-05AA

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101442**	**Date of Collection: 10/10/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Arcolor 1016	1.0	Not Detected
Arocior 1221	1.0	Not Detected
Arocior 1232	1.0	Not Detected
Arocior 1242	1.0	Not Detected
Arocior 1248	1.0	Not Detected
Arcolor 1254	1.0	Not Detected
Arocior 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	116	50-150
2,4,5,6-Tetrachloro-m-xylene	115	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101298-PE-10

ID#: 9810205-06A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101444**	**Date of Collection: 10/12/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/16/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	1.5
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	125	50-150
2,4,5,6-Tetrachloro-m-xylene	114	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101298-PW-10

ID#: 9810205-07A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101445**	**Date of Collection: 10/12/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/16/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	136	50-150
2,4,5,6-Tetrachloro-m-xylene	106	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101298-PS-1C

ID#: 9810205-08A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9101446**	**Date of Collection: 10/12/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/16/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	**130**	**50-150**
2,4,5,6-Tetrachloro-m-xylene	**105**	**50-150**

AIR TOXICS LTD.

SAMPLE NAME: 101298-PN-10

ID#: 9810205-09A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8101447	**Date of Collection: 10/12/98**
Dil. Factor:	1.0	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/16/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	124	50-150
2,4,5,6-Tetrachloro-m-xylene	102	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101298-PR-10

ID#: 981C205-10A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101448**	**Date of Collection: 10/12/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/16/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	2.3
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	163 Q	50-150
2,4,5,6-Tetrachloro-m-xylene	92	50-150

AIR TOXICS LTD.

SAMPLE NAME: 101298-TB-5

ID#: 9810205-11A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101449**	**Date of Collection: 10/12/98**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/16/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	110	50-150
2,4,5,6-Tetrachloro-m-xylene	94	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9810205-12A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name: 9101433
Dil. Factor: 1.0

Date of Collection: NA
Date of Extraction: 10/13/98
Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	76
Aroclor 1221	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1242	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	Not Spiked

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	92	50-150
2,4,5,6-Tetrachloro-m-xylene	101	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9810205-13A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8101432b**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 10/13/98**
		Date of Analysis: 10/15/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	120	50-150
2,4,5,6-Tetrachloro-m-xylene	108	50-150

180 BLUE RAVINE ROAD, SUITE 'B' FOLSOM, CA 95630 (916) 985-1000

West Chester, PA 19380-1499

PHONE:	610-701-7227	**P.O. #** 96699
FAX:	610-701-7401	**PROJECT #** Kalamazoo River Superfund Site/Allied Paper OU
DATE RECEIVED:	11/5/98	
DATE COMPLETED:	11/9/98	

FRACTION #	NAME	TEST
01A	110398-PS-11	TO-4
02A	110398-PR-11	TO-4
03A	110398-TB-6	TO-4
04A	Lab Blank	TO-4
05A	LCS	TO-4

CERTIFIED BY: John Swanson for; DATE 11-9-98
Laboratory Director

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

AIR TOXICS LTD.

SAMPLE NAME: 110398-PS-11

ID#: 9811094-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8100811**	**Date of Collection: 11/3/98**
Dil. Factor:	**1.0**	**Date of Extraction: 11/6/98**
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Q = Exceeds Quality Control limits.

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	166 Q	60-150
2,4,5,6-Tetrachloro-m-xylene	87	60-150

AIR TOXICS LTD.

SAMPLE NAME: 110398-PR-11

ID#: 9811084-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9110812**	**Date of Collection: 11/3/98**
Dil. Factor:	**1.0**	**Date of Extraction: 11/6/98**
		Date of Analysis: 11/9/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	113	50-150
2,4,5,6-Tetrachloro-m-xylene	92	50-150

AIR TOXICS LTD.

SAMPLE NAME: 110398-TB-6

ID#: 9811084-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8110813**	**Date of Collection: 11/3/98**
Dil. Factor:	**1.0**	**Date of Extraction: 11/5/98**
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	115	50-150
2,4,5,6-Tetrachloro-m-xylene	98	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9811084-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8110808	**Date of Collection:**	NA
Dil. Factor:	1.0	**Date of Extraction:**	11/6/98
		Date of Analysis:	11/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	103	50-150
2,4,5,6-Tetrachloro-m-xylene	107	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9811084-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8110610**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 11/6/98**
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	92
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	98	50-150
2,4,5,6-Tetrachloro-m-xylene	111	50-150

FAXED
NOV 09 1998

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9811091

Work Order Summary

CLIENT:	Mr. Joe Martini Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499	**BILL TO:** Same	
PHONE:	610-701-7227	**P.O. #** 96699	
FAX:	610-701-7401	**PROJECT #** Kalamazoo River Superfund/Allied Paper OU	
DATE RECEIVED:	11/6/98		
DATE COMPLETED:	11/9/98		

FRACTION #	NAME	TEST
01A	110498-PS-12	TO-4
02A	110498-PR-12	TO-4
03A	110598-PR-13	TO-4
04A	110598-PS-13	TO-4
05A	Lab Blank	TO-4
06A	LCS	TO-4

CERTIFIED BY: John Swanson for; Laboratory Director DATE: 11-9-98

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 110498-PS-12

ID#: 9811091-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8110814**	**Date of Collection: 11/4/98**
Dil. Factor:	**1.0**	**Date of Extraction: 11/6/98**
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	100	50-150
2,4,5,6-Tetrachloro-m-xylene	82	50-150

AIR TOXICS LTD.

SAMPLE NAME: 110498-PR-12

ID#: 98I1091-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8110818**	**Date of Collection: 11/4/98**
Dil. Factor:	**1.0**	**Date of Extraction: 11/8/98**
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	108	50-150
2,4,5,6-Tetrachloro-m-xylene	84	50-150

AIR TOXICS LTD.

SAMPLE NAME: 110598-PR-13

ID#: 9811091-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8110816**	**Date of Collection: 11/5/98**
Dil. Factor:	**1.0**	**Date of Extraction: 11/9/98**
		Date of Analysis: 11/9/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	113	50-150
2,4,5,6-Tetrachloro-m-xylene	97	50-150

AIR TOXICS LTD.

SAMPLE NAME: 110598-PS-13

ID#: 9811091-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	9110817	Date of Collection: 11/5/98
Dil. Factor:	1.0	Date of Extraction: 11/6/98
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	106	50-150
2,4,5,6-Tetrachloro-m-xylene	80	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9811091-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**8110809**	**Date of Collection:**	**NA**
Dil. Factor:	**1.0**	**Date of Extraction:**	**11/8/98**
		Date of Analysis:	**11/8/98**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	103	50-150
2,4,5,6-Tetrachloro-m-xylene	107	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9811091-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9110810**	**Date of Collection: NA**
Dil. Factor:	**1.0**	**Date of Extraction: 11/6/98**
		Date of Analysis: 11/8/98

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	92
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	98	50-150
2,4,5,6-Tetrachloro-m-xylene	111	50-150

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9902325

Work Order Summary

CLIENT:	Gopa Nair Roy F. Weston, Inc. 266 E. Alcott Street Kalamazoo, MI 49001	**BILL TO:**	Accounts Payable Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499
PHONE:	616-373-7009	**P.O. #**	96699
FAX:	616-373-7010	**PROJECT #**	Kalamazoo River Superfund/Allied Paper OU
DATE RECEIVED:	2/24/99		
DATE COMPLETED:	2/26/99		

FRACTION #	NAME	TEST
01A	022299-PR-14	TO-4
02A	022299-PW-14	TO-4
03A	022299-TB-7	TO-4
04A	Lab Blank	TO-4
05A	LCS	TO-4

CERTIFIED BY: Judy Mayne for
Laboratory Director

DATE: 2-26-99

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 022299-PR-14

ID#: 9902325-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	[illegible]	Date of Collection:	2/22/99
Dil. Factor:	1.00	Date of Extraction:	2/24/99
		Date of Analysis:	2/25/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	110	50-150
2,4,6,6-Tetrachloro-m-xylene	93	50-150

AIR TOXICS LTD.

SAMPLE NAME: 022299-PW-14

ID#: 9902325-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	9022607	Date of Collection:	2/22/99
Dil. Factor:	1.00	Date of Extraction:	2/24/99
		Date of Analysis:	2/25/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	114	50-150
2,4,5,6-Tetrachloro-m-xylene	111	50-150

AIR TOXICS LTD.

SAMPLE NAME: 022299-TB-7

ID#: 9902525-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	[illegible]	Date of Collection:	2/22/99
Dil. Factor:	1.00	Date of Extraction:	2/24/99
		Date of Analysis:	2/25/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	96	50-150
2,4,5,6-Tetrachloro-m-xylene	83	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9902325-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	[illegible]	Date of Collection:	NA
Dil. Factor:	1.00	Date of Extraction:	2/24/99
		Date of Analysis:	2/25/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	115	60-150
2,4,5,6-Tetrachloro-m-xylene	98	60-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9902325-05A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	9902506	Date of Collection:	NA
Dil. Factor:	1.00	Date of Extraction:	3/24/99
		Date of Analysis:	3/25/99

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	71
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	63

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	92	50-150
2,4,5,6-Tetrachloro-m-xylene	74	50-150

@AIR TOXICS LTD.

AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9902355

Work Order Summary

CLIENT:	Gopa Nair Roy F. Weston, Inc. 266 E. Alcott Street Kalamazoo, MI 49001	**BILL TO:**	Accounts Payable Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499
PHONE:	616-373-7009	**P.O. #**	96699
FAX:	616-373-7010	**PROJECT #**	Kalamazoo River Superfund
DATE RECEIVED:	2/25/99		
DATE COMPLETED:	2/28/99		

FRACTION #	NAME	TEST
01A	022399-PR-15	TO-4
02A	022399-PW-15	TO-4
03A	Lab Blank	TO-4
04A	LCS	TO-4

CERTIFIED BY: John Swanson for Laboratory Director DATE: 3-1-99

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA 95630
(916) 985-1000 • (800) 985-5955 • FAX (916) 985-1020

AIR TOXICS LTD.

SAMPLE NAME: 022399-PR-15

ID#: 9902355-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**9022803**	**Date of Collection:**	**2/23/99**
Dil. Factor:	**1.00**	**Date of Extraction:**	**2/25/99**
		Date of Analysis:	**2/28/99**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	128	50-150
2,4,5,6-Tetrachloro-m-xylene	100	50-150

AIR TOXICS LTD.

SAMPLE NAME: 022399-PW-15

ID#: 9902355-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8022804	Date of Collection: 2/23/99
Dil. Factor:	1.00	Date of Extraction: 2/25/99
		Date of Analysis: 2/26/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	118	50-150
2,4,5,6-Tetrachloro-m-xylene	96	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9902355-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	6022802	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Extraction:**	2/25/99
		Date of Analysis:	2/28/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	113	50-150
2,4,5,6-Tetrachloro-m-xylene	87	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9902355-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	9022808	Date of Collection: NA
Dil. Factor:	1.00	Date of Extraction: 2/25/99
		Date of Analysis: 2/28/99

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	101
Aroclor 1221	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1242	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	86

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	111	50-150
2,4,5,6-Tetrachloro-m-xylene	108	50-150

@AIR TOXICS LTD.
AN ENVIRONMENTAL ANALYTICAL LABORATORY

WORK ORDER #: 9902386

Work Order Summary

CLIENT:	Gopa Nair Roy F. Weston, Inc. 266 E. Alcott Street Kalamazoo, MI 49001	**BILL TO:**	Accounts Payable Roy F. Weston, Inc. 1 Weston Way West Chester, PA 19380-1499
PHONE:	616-373-7009	**P.O. #**	96699
FAX:	616-373-7010	**PROJECT #**	Allied Paper/Kalamazoo River Superfund
DATE RECEIVED:	2/26/99		
DATE COMPLETED:	3/1/99		

FRACTION #	NAME	TEST
01A	022499-PR-16	TO-4
02A	022499-PN-16	TO-4
02AA	022499-PN-16	TO-4
03A	Lab Blank	TO-4
04A	LCS	TO-4

CERTIFIED BY: John Swanson for Laboratory Director DATE: 3-1-99

Certification numbers: CA ELAP - 1149, NY ELAP - 11291, UT ELAP - E-217

AIR TOXICS LTD.

SAMPLE NAME: 022499-PR-16

ID#: 9902386-01A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8022808	Date of Collection: 2/24/99
Dil. Factor:	1.00	Date of Extraction: 2/27/99
		Date of Analysis: 2/28/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	94	50-150
2,4,5,6-Tetrachloro-m-xylene	79	50-150

AIR TOXICS LTD.

SAMPLE NAME: 022499-PN-16

ID#: 9902386-02A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	**a022808**	**Date of Collection:**	**2/24/99**
Dil. Factor:	**1.00**	**Date of Extraction:**	**2/27/99**
		Date of Analysis:	**2/28/99**

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	89	50-150
2,4,5,6-Tetrachloro-m-xylene	83	50-150

AIR TOXICS LTD.

SAMPLE NAME: 022499-PN-16

ID#: 9902386-02AA

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8022610	**Date of Collection:**	2/24/99
Dil. Factor:	1.00	**Date of Extraction:**	2/27/99
		Date of Analysis:	2/28/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	91	50-150
2,4,5,6-Tetrachloro-m-xylene	79	50-150

AIR TOXICS LTD.

SAMPLE NAME: Lab Blank

ID#: 9902386-03A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	8022807	Date of Collection:	NA
Dil. Factor:	1.00	Date of Extraction:	2/27/99
		Date of Analysis:	2/28/99

Compound	Det. Limit (uG)	Amount (uG)
Aroclor 1016	1.0	Not Detected
Aroclor 1221	1.0	Not Detected
Aroclor 1232	1.0	Not Detected
Aroclor 1242	1.0	Not Detected
Aroclor 1248	1.0	Not Detected
Aroclor 1254	1.0	Not Detected
Aroclor 1260	1.0	Not Detected

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	95	50-150
2,4,5,6-Tetrachloro-m-xylene	89	50-150

AIR TOXICS LTD.

SAMPLE NAME: LCS

ID#: 9902386-04A

EPA METHOD TO-4
Polychlorinated Biphenyls in Ambient Air
GC/ECD

File Name:	2022811	**Date of Collection:**	NA
Dil. Factor:	1.00	**Date of Extraction:**	2/27/99
		Date of Analysis:	2/28/99

Compound	Det. Limit (uG)	% Recovery
Aroclor 1016	1.0	85
Aroclor 1221	1.0	Not Spiked
Aroclor 1232	1.0	Not Spiked
Aroclor 1242	1.0	Not Spiked
Aroclor 1248	1.0	Not Spiked
Aroclor 1254	1.0	Not Spiked
Aroclor 1260	1.0	75

Surrogate	% Recovery	Method Limits
Decachlorobiphenyl	97	50-150
2,4,5,6-Tetrachloro-m-xylene	90	50-150

DATA CHEM LABORATORIES
A EDRINSON COMPANY

7/21/99

Submitted To:
Gopa Nair & Dave Ennis
Roy F. Weston
266 E. Alcott St.
Kalamozoo, MI
49001

Reference Data:

Sample Location:	Allied Paper / Kalamazoo River Superfund
Sample Type:	Air, PUF
Client Sample No.:	071999-FT-01 through 071999-PB-01
PO #:	Not Available
Method Reference:	NIOSH 5503 and TO-10
Sample Set ID#:	99-C-4122
DATACHEM Lab No.:	99-24937 through 99-24942
Preparation Date:	07/20/99
Analysis Date:	07/20/99 and 07/21/99

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-1701 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Tami S. Anderson
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
[illegible]
SALT LAKE CITY, UTAH [illegible]
[illegible] FAX [illegible]

[illegible] OFFICE
[illegible]
[illegible]
[illegible]

MARYLAND OFFICE
17624 MACDUFF AVENUE
OLNEY, MARYLAND 20032
301 924-1987 FAX 301 924-1961

99-C-4122

DATA TABLE
µg/sample
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
071999-FT-01	99-24937	ND	ND	ND	ND	ND	ND	ND
071999-FT-02	99-24938	ND	ND	ND	ND	ND	ND	ND
071999-FT-03	99-24939	ND	ND	ND	ND	ND	ND	ND
	QC 9253	ND	ND	ND	ND	ND	ND	.18
	Limit of Detection	.05	.1	.05	.05	.05	.05	.05

DATA TABLE
µg/m³
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
071999-FT-01	99-24937	<.89	<1.8	<.89	<.89	<.89	<.89	<.89
071999-FT-02	99-24938	<.81	<1.6	<.81	<.81	<.81	<.81	<.81
071999-FT-03	99-24939	-	-	-	-	-	-	-

ND indicates below the limit of detection

QC 9253 is spiked at .2 µg/sample.

Tami S. Anderson
Analyst

Reviewer

99-C-4122

DATA TABLE
µg/sample
PUF
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260	Surrogate % Rec.
071999-PS-01	99-24940	ND	ND	ND	ND	ND	ND	ND	78.
071999-PR-01	99-24941	ND	ND	ND	ND	ND	ND	ND	48.
071999-PB-01	99-24942	ND	ND	ND	ND	ND	ND	ND	66.
	PUF BLK	ND	ND	ND	ND	ND	ND	ND	75.
	PUF LCS	ND	ND	ND	ND	ND	ND	.706	64.
	Limit of Detection	.1	.1	.1	.1	.1	.1	.1	

ND indicates below the limit of detection
The LCS samples were spiked at 1. µg/sample.

DATA TABLE
µg/m³
PUF
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
071999-PS-01	99-24940	<.07	<.07	<.07	<.07	<.07	<.07	<.07
071999-PR-01	99-24941	<.08	<.08	<.08	<.08	<.08	<.08	<.08
071999-PB-01	99-24942	-	-	-	-	-	-	-

Tami S. Anderson
Analyst

Reviewer

DATA CHEM LABORATORIES
A SCREBSON COMPANY

7/22/99

Submitted To:
Gopa Nair & Dave Ennis
Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper / Kalamazoo Superfund Site
Sample Type:	Air and PUF
Client Sample No.:	072099-FT-01 through 072099-PR-02
PO #:	Not Available
Method Reference:	NIOSH 5503 and TO-10
Sample Set ID#:	99-C-4148
DATACHEM Lab No.:	99-25067 through 99-25070
Preparation Date:	07/21/99
Analysis Date:	07/21/99 and 07/22/99

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-1701 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Tami S. Anderson
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
[illegible]
SALT LAKE CITY, UTAH [illegible]
[illegible] FAX [illegible]

CINCINNATI OFFICE
[illegible] GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-5706
[illegible] FAX 513 733-5347

MARYLAND OFFICE
[illegible] MACCUFF AVENUE
GUNEY, MARYLAND 20832
301 924-1987 FAX 301 924-1981

LEAD [illegible] CHEMISTRY INTO THE 21ST CENTURY

99-C-4148

DATA TABLE
µg/sample
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072099-FT-01	99-25067	ND	ND	ND	ND	ND	ND	ND
072099-FT-02	99-25068	ND	ND	ND	ND	ND	ND	ND
	QC 9256	ND	ND	ND	ND	ND	ND	.19
	Limit of Detection	**.05**	**.1**	**.05**	**.05**	**.05**	**.05**	**.05**

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072099-FT-01	99-25067	<.98	<2.0	<.98	<.98	<.98	<.98	<.98
072099-FT-02	99-25068	<.89	<1.8	<.89	<.89	<.89	<.89	<.89

ND indicates below the limit of detection

QC 9256 is spiked at .2 µg/sample.

Tami S. Anderson
Analyst

Reviewer

99-C-4148

DATA TABLE
µg/sample
PCB
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260	Surrogate % Rec.
072099-PE-02	99-25069	ND	ND	ND	ND	ND	ND	ND	80.
072099-PR-02	99-25070	ND	ND	ND	ND	ND	ND	ND	80.
	EXT BLK	ND	ND	ND	ND	ND	ND	ND	71
	LCS	ND	ND	ND	ND	ND	ND	.740	76.
	Limit of Detection	.1	.1	.1	.1	.1	.1	.1	

DATA TABLE
µg/m^3

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072099-PE-02	99-25069	<.10	<.10	<.10	<.10	<.10	<.10	<.10
072099-PR-02	99-25070	<.09	<.09	<.09	<.09	<.09	<.09	<.09

ND indicates below the limit of detection

Tami S. Anderson
Analyst

Reviewer

Sent By: [illegible]

DATA CHEM LABORATORIES
A SORENSON COMPANY

7/27/99

Submitted To:
Gopa Nair & Dave Ennis
Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper / Kalamazoo Superfund
Sample Type:	Air, PUF
Client Sample No.:	072299-FT-01 through 072299-PW-03
PO #:	Not Available
Method Reference:	NIOSH 5503 and TO-10
Sample Set ID#:	99-C-4200
DATACHEM Lab No.:	99-25358 through 99-25361
Preparation Date:	07/26/99
Analysis Date:	07/26/99 and 07/27/99

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-1701 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Tami S. Anderson
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
960 WEST LeVOY DRIVE
SALT LAKE CITY, UTAH 84123-2647
801 266-7700, FAX 801 268-9992

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733 5336, FAX 513 733-5347

MARYLAND OFFICE
17024 MACDUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1957, FAX 301 924-1991

99-C-4200

DATA TABLE
µg/sample
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072299-FT-01	99-25358	ND	ND	ND	ND	ND	ND	ND
072299-FT-02	99-25359	ND	ND	ND	ND	ND	ND	ND
	QC 9254	ND	ND	ND	ND	ND	.22	ND
	Limit of Detection	**.05**	**.1**	**.05**	**.05**	**.05**	**.05**	**.05**

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072299-FT-01	99-25358	<.88	<1.8	<.88	<.88	<.88	<.88	<.88
072299-FT-02	99-25359	<.94	<1.9	<.94	<.94	<.94	<.94	<.94

ND indicates below the limit of detection

QC 9254 is spiked at .2 µg/sample.

Tami S. Anderson
Analyst

Reviewer

99-C-4200

DATA TABLE
µg/sample
PCT
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260	Surrogate % Rec.
072299-PR-03	99-25360	.2	ND	ND	ND	ND	ND	ND	100.
072299-PW-03	99-25361	.2	ND	ND	ND	ND	ND	ND	90.
	EXT BLK	ND	ND	ND	ND	ND	ND	ND	92.
	LCS	ND	ND	ND	ND	ND	ND	.82	98.
	Limit of Detection	.1	.1	.1	.1	.1	.1	.1	

DATA TABLE
µg/m^3

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072299-PR-03	99-25360	.16	<.08	<.08	<.08	<.08	<.08	<.08
072299-PW-03	99-25361	.15	<.08	<.08	<.08	<.08	<.08	<.08

ND indicates below the limit of detection

The LCS is spiked at 1 µg/sample.

Tami S. Anderson
Analyst

Reviewer

DATA CHEM LABORATORIES
A SORENSON COMPANY

7/29/99

Submitted To:
Gopa Nair & Dave Ennis
Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper / Kalamazoo River Superfund
Sample Type:	Air, PUF
Client Sample No.:	072799-FT-01 through 072799-ST-PN-01
PO #:	Not Available
Method Reference:	NIOSH 5503, TO-10
Sample Set ID#:	99-C-4292
DATACHEM Lab No.:	99-25764 through 99-25767
Preparation Date:	07/28/99
Analysis Date:	07/28/99 and 07/29/99

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-1701 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Tami S. Anderson
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
960 WEST LEVOY DRIVE
SALT LAKE CITY, UTAH 84123-2547
801 266-7700 FAX 801 268 9992

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336 FAX 513 733-5347

MARYLAND OFFICE
17624 MACOUPE AVENUE
OLNEY, MARYLAND 20832
301 924-1967 FAX 301 924-1981

99-C-4292

DATA TABLE
µg/sample
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072799-FT-01	99-25764	ND	ND	ND	ND	ND	ND	ND
072799-FT-02	99-25765	ND	ND	ND	ND	ND	ND	ND
	QC 7/28	ND	ND	ND	ND	ND	ND	.23
	Limit of Detection	.05	.1	.05	.05	.05	.05	.05

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072799-FT-01	99-25764	<.73	<1.5	<.73	<.73	<.73	<.73	<.73
072799-FT-02	99-25765	<.81	<1.6	<.81	<.81	<.81	<.81	<.81

ND indicates below the limit of detection

QC 7/28 is spiked at .2 µg/sample.

Tami S. Anderson
Analyst

Reviewer

99-C-4292

DATA TABLE
µg/sample
PUFS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260	Surrogate % Rec.
072799-ST-PR-01	99-25766	.1	ND	ND	ND	ND	ND	ND	72.
072799-ST-PN-01	99-25767	.1	ND	ND	ND	ND	ND	ND	81.
	EXT BLK	ND	ND	ND	ND	ND	ND	ND	72.
	LCS	ND	ND	ND	ND	ND	ND	.82	96.
	Limit of Detection	.1	.1	.1	.1	.1	.1	.1	

DATA TABLE
µg/m³

AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072799-ST-PR-C1	99-25766	.07	<.07	<.07	<.07	<.07	<.07	<.07
072799-ST-PN-01	99-25767	.07	<.07	<.07	<.07	<.07	<.07	<.07

ND indicates below the limit of detection

The LCS is spiked at 1. µg/sample.

Tami S. Anderson
Analyst

Reviewer

DATA CHEM LABORATORIES
A SORENSON COMPANY

8/2/99

Submitted To:

Gopa Nair & Dave Ennis
Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Allied Paper / Kalamazoo Superfund
Sample Type:	Air, PUF
Client Sample No.:	072899-FT-01 through 072899-ST-PR-02
PO #:	Not Available
Method Reference:	NIOSH 5503
Sample Set ID#:	99-C-4314
DATACHEM Lab No.:	99-25887 through 99-25890
Preparation Date:	07/30/99 and 08/02/99
Analysis Date:	08/02/99

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-1701 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Tami S. Anderson
Analyst

James R. Baxter
Laboratory Director

DATA TABLE
µg/sample
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072899-FT-01	99-25887	ND	ND	ND	ND	ND	ND	ND
072899-FT-02	99-25888	ND	ND	ND	ND	ND	ND	ND
	QC 9340	ND	ND	ND	ND	ND	ND	**.19**
	Limit of Detection	**.05**	**.1**	**.05**	**.05**	**.05**	**.05**	**.05**

DATA TABLE
µg/m^3
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072899-FT-01	99-25887	<.79	<1.6	<.79	<.79	<.79	<.79	<.79
072899-FT-02	99-25888	<.76	<1.5	<.76	<.76	<.76	<.76	<.76

ND indicates below the limit of detection

QC 9340 is spiked at .2 µg/sample.

Tami S. Anderson
Analyst

Reviewer

DATA TABLE
µg/sample
PUF
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260	Surrogate % Rec.
072899-ST-PW-02	99-25889	**.2**	ND	ND	ND	ND	ND	ND	**82.**
072899-ST-PR-02	99-25890	**.1**	ND	ND	ND	ND	ND	ND	**75.**
	PUF LCS	ND	ND	ND	ND	ND	ND	**.74**	**79.**
	99-26164 BLK	ND	ND	ND	ND	ND	ND	ND	**84.**
	Limit of Detection	**.1**	**.1**	**.1**	**.1**	**.1**	**.1**	**.1**	

DATA TABLE
µg/m^3
PUF
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072899-ST-PW-02	99-25889	**.16**	<.08	<.08	<.08	<.08	<.08	<.08
072899-ST-PR-02	99-25890	**.08**	<.08	<.08	<.08	<.08	<.08	<.08

ND indicates below the limit of detection

The LCS is spiked at 1 µg/sample.

Tami S. Anderson
Analyst

Edward J. Black
Reviewer

DATA CHEM LABORATORIES
A SORENSON COMPANY

8/3/99

Submitted To:
Gopa Nair & Dave Ennis
Roy F. Weston
266 E. Alcott St.
Kalamazoo, MI
49001

Reference Data:

Sample Location:	Kalamazoo River Superfund
Sample Type:	Air, PUF
Client Sample No.:	072999-FT-01 through 072999-ST-PB-01
PO #:	Not Available
Method Reference:	NIOSH 5503
Sample Set ID#:	99-C-4355
DATACHEM Lab No.:	99-26159 through 99-26164
Preparation Date:	07/30/99 and 08/02/99
Analysis Date:	08/02/99

The samples were prepared for analysis by desorption in hexane.

The analysis was peformed using a Hewlett Packard 5890 gas chromatograph equipped with an electron capture detector and a DB-1701 capillary column with temperature programming from 190°C to 300°C.

The results are provided in the enclosed data table.

Tami S. Anderson
Analyst

James R. Baxter
Laboratory Director

SALT LAKE CITY OFFICE
960 WEST LEVOY DRIVE
SALT LAKE CITY, UTAH 84123-2547
801 266-7700, FAX 801 268-9992

CINCINNATI OFFICE
4388 GLENDALE-MILFORD ROAD
CINCINNATI, OHIO 45242-3706
513 733-5336, FAX 513 733-5347

MARYLAND OFFICE
17924 MACOUFF AVENUE
OLNEY, MARYLAND 20832
301 924-1567 FAX 301 924-1587

99-C-4314

DATA TABLE
µg/sample
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072999-FT-01	99-26159	ND	ND	ND	ND	ND	ND	ND
072999-FT-02	99-26160	ND	ND	ND	ND	ND	ND	ND
072999-FB-01	99-26161	ND	ND	ND	ND	ND	ND	ND
	QC 9340	ND	ND	ND	ND	ND	ND	.19
	Limit of Detection	**.05**	**.1**	**.05**	**.05**	**.05**	**.05**	**.05**

DATA TABLE
µg/m³
AIRS
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072999-FT-01	99-26159	<.83	<1.7	<.83	<.83	<.83	<.83	<.83
072999-FT-02	99-26160	<.81	1.6	<.81	<.81	<.81	<.81	<.81
072999-FB-01	99-26161	-	-	-	-	-	-	-

ND indicates below the limit of detection

QC 9340 is spiked at .2 µg/sample.

Tami S. Anderson
Analyst

Reviewer

99-C-4314

DATA TABLE
µg/sample
PUF
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260	Surrogate % Rec.
072999-ST-PR-03	99-26162	.2	ND	ND	ND	ND	ND	ND	72.
072999-ST-PN-03	99-26163	.3	ND	ND	ND	ND	ND	ND	70.
072999-ST-PB-01	99-26164 BLK	ND	ND	ND	ND	ND	ND	ND	84.
	PUF LCS	ND	ND	ND	ND	ND	ND	.74	79.
	Limit of Detection	.1	.1	.1	.1	.1	.1	.1	

DATA TABLE
µg/m^3
PUF
AROCLORS

Client #	DCL #	1016	1221	1232	1242	1248	1254	1260
072999-ST-PR-03	99-26162	.15	<.07	<.07	<.07	<.07	<.07	<.07
072999-ST-PN-03	99-26163	.22	<.08	<.08	<.08	<.08	<.08	<.08
072999-ST-PB-01	99-26164 BLK	-	-	-	-	-	-	-

ND indicates below the limit of detection

The LCS is spiked at 1 µg/sample.

Tami S. Anderson
Analyst

Reviewer

APPENDIX J1

CHAIN OF CUSTODY
(MISCELLANEOUS SOIL)

Kerr-McGee
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

WA# 03886-515-001-0800-00

00698

Page 1 of 1

Project Contact: HAL BLAKEMORE

Turn Around Requirements: STANDARD

Project No.: 97267 L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): JAMES N. McINNES

Signature: James N. McInnes

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	PCBs	TEMPERATURE	ADDITIONAL REQUIREMENTS
NC-SS-01		X	10/6/98	0845					X		
NC-SS-02		X	10/6/98	0900					X		
NC-SS-03		X	10/6/98	0910					X		
NC-SS-04		X	10/6/98	0915					X		
NC-SS-05		X	10/6/98	0930					X		
TMP-0004			10/6/98	1730						X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Stephen E. Fischer	10/6/98	1730					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						STANDARD TURNAROUND (5-7 DAYS)

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

KEMRON
ENVIRONMENTAL SERVICES

,895

CHAIN-OF-CUSTODY RECORD

Project Contact:

Turn Around Requirements:

Project No.: | Project Name:

Sampler (print): | Signature:

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold		ADDITIONAL REQUIREMENTS

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all co samples prior to analysis

White – Lab Yell ice Pink – Field

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

16-3

Page 3 of 3

Project Contact: HAL BLAKEMORE

Turn Around Requirements: STANDARD TAT

Project No.: Project Name: Kalamazoo River Superfund

Sampler (print): [illegible] Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	X Calcium Oxide (CaO)	ADDITIONAL REQUIREMENTS
	ASHKMW-01	X		11/[illegible]/92		Soil/Ash					
									X	X	See Remarks Below

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	12/01/92	11:00					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks: PLEASE EXAMINE UNDER MICROSCOPE FOR COAL CONTENT. CONTACT PAT ZAHARY FOR DETAILS

White - Lab Yellow - Office Pink - Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

1015

Page 2 of 2

Project Contact: HAL BLAKEMORE

Turn Around Requirements: STANDARD TAT

Project No.: | Project Name: Kalamazoo River Superfund Site

Sampler (print): [illegible] | Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	Calcium Oxide (CaO)	ADDITIONAL REQUIREMENTS
	A5116P-01		X	12/31/95	1100	Soil/Ash				X	See Remarks Below

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	12/31/95	1700					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						PLEASE EXAMINE UNDER MICROSCOPE FOR COAL CONTENT

White - Lab Yellow - [illegible] Pink - Field

WES[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, IN[illegible]

Phone: 616-399-6070 Fax: 616-399-6185

15-1

CHAIN-OF-CUSTODY RECORD

Page 2 of 3

Project Contact: [illegible]

Turn Around Requirements: [illegible]

Project No.: Project Name: [illegible]

Sampler (print): [illegible] Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	ICES	ADDITIONAL REQUIREMENTS
	[illegible]		X	[illegible]	[illegible]	[illegible]				X	
	[illegible]		X	[illegible]	[illegible]	[illegible]				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	1/8/97	1520					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						DIVE [illegible] II -- [illegible] WATER SAMPLES

White - Lab Yellow - Office Pink - Field

WEST[illegible]N MICHIGAN ENVIRONMENTAL SERVICES, INC.

1[illegible]9

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: Hal Blakemore

Turn Around Requirements: 24 hr

Project No.:

Project Name: Kalamazoo River Superfund Site

Sampler (print): Scott Pitner

Signature: [signature]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCB	ADDITIONAL REQUIREMENTS
	~~AM36-BERM-01~~		X	~~1-13-99~~	~~1750~~	~~S~~					
	AM36-BERM-01		X	1-13-99	1750	S		1CG		X	
	CDPHZGS01		X	1-15-99	1000					X	
	CDPHZGS02		X		1004					X	
	CDPHZGS03		X		1006					X	
	CDPHZGS04		X		1010					X	
	CDPHZGS05		X		1012					X	
	CDPHZGS06		X		1015					X	
	CDPHZGS07		X	1-15-99	1020	S		1CG		X	
	PPTPGS01		X	1-15-99	1415	S		1CG		X	
	Pinch point test pit										

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[signature]	1-15-99 ~~1400~~	1400					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Creek Division phase 2 (w[illegible] wall) Pinch point test pit

WES[illegible]RN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Project Contact: TIM LAROUCHE

Turn Around Requirements: [illegible]

Project No.:

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	[illegible]														ADDITIONAL REQUIREMENTS
	DIV-CS-01	X		3/25/99	1445	SOIL				X														

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	3/25/99	1721					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						COMPOSITE SOIL SAMPLE COLLECTED FROM SOIL PILE ALONG [illegible] (GREEK)

White - Lab Yellow - [illegible] Pink - Field

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Phone: 616-399-6070 Fax: 616-399-6185

1126

CHAIN-OF-CUSTODY RECORD

Page 2 of 2

Project Contact: TIM LABUERRE

Turn Around Requirements: 5 days

Project No.:

Project Name: Kalamazoo River Superfund

Sampler (print): Sara Navin

Signature:

Lab I.D. #	Sample I.D. No.	Comp*	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs	RCRA Metals + MI Metals	ADDITIONAL REQUIREMENTS
	PPE-CS-01	X		4/1/19	1600	Waste		2		X	X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Sara Navin	4/1/19	1730					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						PPE Sample from Roll-off Box

White - Lab Yellow - Pink - Field

WEST MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: T. Laquire / Iversen

Turn Around Requirements: Standard 7th, Turnaround.

Project No.: Project Name: Kalamazoo River Superfund

Sampler (print): Nimish Adhvaryu Signature:

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs	ADDITIONAL REQUIREMENTS
	LF1-01		X	05/05/99	1800	Soil				X	
	LF2-01		X		1800	Soil				X	
	LF3-01		X		1800	Soil				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	05/06/99	1745					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Need only Standard Turnaround.

White - Lab Yellow - Office Pink - Field

WEST. .N MICHIGAN ENVIRONMENTAL SERVICES, INC

Phone: 616-399-6070 Fax: 616-399-6185

48

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Project Contact: Tim Laguerre / Weston

Turn-Around Requirements: Standard 7 day Turnaround

Project No.: | Project Name: Kalamazoo River Superfund

Sampler (print): Nimish Adhyaru | Signature:

Lab I.D. #	Sample I.D. No.	Comp	Grab	Date	Time	MATRIX	MS / MSD	NUMBER OF CONTAINERS	Hold	PCBs	Metals (Total Iron + Michigan)	ADDITIONAL REQUIREMENTS
	LGN4-C-01	X		05/01/09	1550	Soil				X	X	RECRA + Michigan Metals
	LGN6-SW-01	X		05/01/09	1530	Soil				X	X	
	LGN6-NE-01	X		05/01/09	1500	Soil				X	X	

Appendix #9

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
	05/06/09	1740					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Need my Standard Turnaround

White - Lab Yellow - C Pink - Field

KAR Laboratories, Inc. (616-381-9666)

(Client must complete shaded areas)

Client: Roy F. Weston, Inc
266 E Alcott
Kalamazoo, MI 49001
Attn: Nimish Adhvaryu
Phone: ( ) Fax: ( )

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials: SP

Turnaround time: 24 hr
☐ 10-day ☒ Emergency (quote)
☐ 5-day (x 1.5) ☐ Monthly
☐ 3-day (x 2.0)

Samples rec'd cold: (Y) N ___ °C intact: (Y) N

KAR use only
Proj#: 992458
Login: JLL
Date: 5/26/99
c-of-c (Y) N
labels (Y) N
LODs Y (N)
contain (Y) N
headspace Y (N)
amount (Y) N
hold time (Y) N
rush cost (Y) N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCB	Remarks
	SC-SS-CB-01	5-26-99	1530	S	~~AG 4 oz~~	4 oz	1	X	
	SC-SS-CB-02	5-26-99	1530	S	AG	4oz	1	X	

Relinquished By: Scott Kelley
Received By: J. Kosek
Date/Time: 5-26-99/1600

Relinquished By:
Received By:
Date/Time:

Notes: Need 0.1 mg/kg level C per Nimish 5/27/99. (JLL)

APPENDIX L1

GEOTECHNICAL TEST RESULTS
(VENTING LAYER)

GEOTECHNICAL TEST RESULTS (VENTING LAYER)

Grain Size

Sample I.D. #	Sample Type	Sample Date	% Passing #200 Sieve	% Passing 1/2" Sieve
2NS-SP-GEO	Venting Layer - Grain Size	8/23/99	1.6	100
2NS-SP-GR2	Venting Layer - Grain Size	8/31/99	1.4	100
2NS-SP-GR3	Venting Layer - Grain Size	8/31/99	1.7	100
2NS-SP-GR4	Venting Layer - Grain Size	8/31/99	1.1	100
2NS-SP-GR5	Venting Layer - Grain Size	8/31/99	1.3	100
2NS-SP-GR6	Venting Layer - Grain Size	9/9/99	1.6	100
2NS-SP-GR7	Venting Layer - Grain Size	9/9/99	0.9	100
2NS-SP-GR8	Venting Layer - Grain Size	9/9/99	1.6	100
2NS-SP-GR9	Venting Layer - Grain Size	9/9/99	1.8	100
2NS-SP-GR10	Venting Layer - Grain Size	9/9/99	2.1	100
2NS-SP-GR11	Venting Layer - Grain Size	9/13/99	1.4	100
2NS-SP-GR12	Venting Layer - Grain Size	9/13/99	1.7	100
2NS-SP-GR13	Venting Layer - Grain Size	9/13/99	1.4	100
2NS-SP-GR14	Venting Layer - Grain Size	9/13/99	1.8	100
2NS-SP-GR15	Venting Layer - Grain Size	9/13/99	1.7	100
2NS-SP-GR16	Venting Layer - Grain Size	9/16/99	0.8	100
2NS-SP-GR17	Venting Layer - Grain Size	9/16/99	1.2	100
2NS-SP-GR18	Venting Layer - Grain Size	9/16/99	1.1	100

Analysis of Aggregate Report

PROJECT: CORK STREET LANDFILL
LOCATION: KALAMAZOO, MI
CONTRACTOR:
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 1
REPORT DATE: 08/27/99
LOG NO: 0
DATE SAMPLED: 08/23/99

Material - 2NS

Sieve Size	Weight Retained gm.	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3	0.0	0.0	100.0		
2	0.0	0.0	100.0		
1 1/2	0.0	0.0	100.0		
1	0.0	0.0	100.0		
3/4	0.0	0.0	100.0		
1/2	70.1	5.3	94.6	90 - 100	
3/8	0.0	0.0	100.0	100	
4	70.8	5.4	94.6	95 - 100	Minimum Not Met
8	141.7	10.8	83.8	65 - 95	
16	130.2	10.0	73.7	35 - 75	
30	154.1	11.8	61.5	20 - 55	Maximum Exceeded
50	424.4	32.4	29.0	10 - 30	
100	311.5	23.8	4.3	0 - 10	
200	34.7	2.6	1.6		
Pan	19.9	1.5			

Weight Of Sample:	1311.4	
Weight After Wash:	1293.3	
Loss By Washing %	1.4	0 - 3

Remarks: 2NS-SP-GEO

SUBMITTED BY:
gd - 42239

REVIEWED BY: GARY A. DOCKING

KAR Laboratories, Inc. (616-381-9666) (Client must complete shaded areas)

Client: Roy F. Weston, Inc
266 E Alcott
Kalamazoo, MI 49001
Attn: Nimish Adhvaryu
Phone: ( ) Fax: ( )

Project Name: Kalamazoo River Superfund
Project #:
P.O. #:
Sampled by: ☐ KAR ☒ Client Initials SP

Turnaround time: 24hr
☐ 10-day ☒ Emergency (quoted)
☐ 5-day (x 1.5) ☐ 3-day (x 2.0) ☐ Monthly

Samples rec'd cold: (Y) N ___ °C intact: (Y) N

KAR use only
Proj#: 992458
Login: JLK
Date: 5/27/99
c-of-c (Y) N
labels (Y) N
LODs Y (N)
contain (Y) N
headspace Y (N)
amount (Y) N
hold time (Y) N
rush cost (Y) N

#	Sample Identification	Sample Info: Date	Time	Matrix	Sample Containers: Type	Size	#	Requested Analyses: PCB	Remarks
	SC-SS-CB-01	5-26-99	1530	S	~~AG 4oz~~ AG	4 oz	1	X	
	SC-SS-CB-02	5-26-99	1530	S	AG	4oz	1	X	

Relinquished By: Scott
Received By: J. Kosak
Date/Time: 5-26-99/1600

Relinquished By:
Received By:
Date/Time:

Notes: Need 0.1 mg/kg + lower C per Nimish 5/27/99. JLK

APPENDIX J2

MISCELLANEOUS SOIL ANALYTICAL DATA

MISCELLANEOUS SOIL ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Analyses Performed	
			PCB (mg/kg)	Other*
NC-SS-01	Creek Bed Sediment	10/6/98	0.11	
NC-SS-02	Creek Bed Sediment	10/6/98	0.055	
NC-SS-03	Creek Bed Sediment	10/6/98	0.081	
NC-SS-04	Creek Bed Sediment	10/6/98	0.95	
NC-SS-05	Creek Bed Sediment	10/6/98	0.27	
WWTP-MH-GS-01	Paper Sludge - Near WWTP Manhole	11/5/98	98	
WWTP-TR-CP-01	Paper Sludge - Near WWTP Treatment Pools	11/5/98	170	
ASHKMW-01	Potential Fly Ash	11/18/98		CaO
ASHGP-01	Potential Fly Ash	12/3/98		CaO
DIV-WWALL-1	Creek Diversion Phase II - West Wall	1/8/99	80	
DIV-WWALL-2	Creek Diversion Phase II - West Wall	1/8/99	ND	
CDPH2GS01	Creek Diversion Phase II - West Wall	1/15/99	0.9	
CDPH2GS02	Creek Diversion Phase II - West Wall	1/15/99	0.63	
CDPH2GS03	Creek Diversion Phase II - West Wall	1/15/99	0.41	
CDPH2GS04	Creek Diversion Phase II - West Wall	1/15/99	ND	
CDPH2GS05	Creek Diversion Phase II - West Wall	1/15/99	ND	
CDPH2GS06	Creek Diversion Phase II - West Wall	1/15/99	1.1	
CDPH2GS07	Creek Diversion Phase II - West Wall	1/15/99	0.21	
PPTPGS01	Creek Diversion Phase II - Pinch Point Test Pit	1/15/99	ND	
DIV-CS-01	Creek Diversion Excavated Material	3/25/99	0.4	
PPE-CS-01	PPE/Roll-Off Waste	4/1/99	ND	Metals
LF1-01	Extension of Type 3 Landfill - Near Creek	5/5/99	1.5	
LF2-01	Extension of Type 3 Landfill - Near Creek	5/5/99	4.9	
LF3-01	Extension of Type 3 Landfill - Near Creek	5/5/99	2.8	
LGN4-C-01	Lagoon 4 Composite After Consolidation	5/6/99	24	Metals
LGN6-SW-01	Lagoon 6 Composite After Consolidation	5/6/99	24	Metals
LGN6-NE-01	Lagoon 6 Composite After Consolidation	5/6/99	41	Metals
SC-SS-CB-01	Natural Gray Clay Along Creek	5/26/99	ND	
SC-SS-CB-02	Natural Gray Clay Along Creek	5/26/99	ND	

* type of analysis, see analytical data for results

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc
Allied Paper Inc Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

PO Number:
Account Number: WESTON-477

Login #: L9810156
Report Date: 10/13/98
Work ID: 97267L/KALAMAZOO RIVER
Date Received: 10/07/98

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810156-01	NC-SS-01	L9810156-02	NC-SS-02
L9810156-03	NC-SS-03	L9810156-04	NC-SS-04
L9810156-05	NC-SS-05		

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 13 Oct 98 5:09PM;JOB 791;Page 2/3

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810156-01
Client Sample ID: NC SS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/06/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 87

TCLP Extract Date: N/A
Extract Date: 10/08/98
Analysis Date: 10/09/98 Time: 02:21

Instrument: HP10
Analyst: CDB
Lab File ID: 027F0101

Method: 8082\3550
Run ID: R53954
Batch : WG47267

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	19	1
11104-28-2	Aroclor-1221	ug/kg		ND	19	1
11141-16-5	Aroclor-1232	ug/kg		ND	19	1
53469-21-9	Aroclor-1242	ug/kg		ND	19	1
12672-29-6	Aroclor-1248	ug/kg	110		19	1
11097-69-1	Aroclor-1254	ug/kg		ND	38	1
11096-82-5	Aroclor-1260	ug/kg		ND	38	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	67.9	(29 - 133%)
Decachlorobiphenyl	81.1	(30 - 173%)

Lab Sample ID: L9810156-01
Client Sample ID: NC-SS-01
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/06/98 0845

% Solid: 87
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	87		1.0	1	N/A	DKM	10/08/98	12:50	D2216-90

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 13 Oct 98 5:17PM;Job 791;Page 4/8

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810156-02
Client Sample ID: NC-SS-02
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/06/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 87

TCLP Extract Date: N/A
Extract Date: 10/08/98
Analysis Date: 10/09/98 Time: 04:44

Instrument: HP10
Analyst: CDB
Lab File ID: 031F0101

Method: 8082\3550
Run ID: R53954
Batch : WG47267

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	19	1
11104-28-2	Aroclor-1221	ug/kg		ND	19	1
11141-16-5	Aroclor-1232	ug/kg		ND	19	1
53469-21-9	Aroclor-1242	ug/kg		ND	19	1
12672-29-6	Aroclor-1248	ug/kg	55		19	1
11097-69-1	Aroclor-1254	ug/kg		ND	38	1
11096-82-5	Aroclor-1260	ug/kg		ND	38	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	70.3	(29 - 133%)
Decachlorobiphenyl	73.2	(30 - 173%)

Lab Sample ID: L9810156-02
Client Sample ID: NC-SS-02
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/06/98 0900

% Solid: 87
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	87		1.0	1	N/A	DKM	10/08/98	12:50	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 13 Oct 98 5:17PM;Job 791 Page 5/8

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810156-03
Client Sample ID: NC-SS-03
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 10/06/98

% Solid: 83

TCLP Extract Date: N/A
Extract Date: 10/08/98
Analysis Date: 10/09/98 Time: 05:19

Instrument: HP10
Analyst: CDB
Lab File ID: 032F0101

Method: 8082\3550
Run ID: R53954
Batch : WG47267

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	20	1
11104-28-2	Aroclor-1221	ug/kg		ND	20	1
11141-16-5	Aroclor-1232	ug/kg		ND	20	1
53469-21-9	Aroclor-1242	ug/kg		ND	20	1
12672-29-6	Aroclor-1248	ug/kg	81		20	1
11097-69-1	Aroclor-1254	ug/kg		ND	40	1
11096-82-5	Aroclor-1260	ug/kg		ND	40	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	70.7	(29 - 133%)
Decachlorobiphenyl	77.4	(30 - 173%)

Lab Sample ID: L9810156-03
Client Sample ID: NC-SS-03
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/06/98 0910

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	83		1.0	1	N/A	DKM	10/08/98	12:50	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 13 OCT 98 5:12PM JOB 791;Page 6/6

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810156-04
Client Sample ID: NC-SS-04
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/06/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: 83

TCLP Extract Date: N/A
Extract Date: 10/08/98
Analysis Date: 10/09/98 Time:

Instrument: HP10
Analyst: CDB
Lab File ID: 033F0101

Method: 8082\3550
Run ID: RS3954
Batch : WG47267

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	20	1
11104-28-2	Aroclor-1221	ug/kg		ND	20	1
11141-16-5	Aroclor 1232	ug/kg		ND	20	1
53469-21-9	Aroclor-1242	ug/kg		ND	20	1
12672-29-6	Aroclor-1248	ug/kg	950	D	99	5
11097-69-1	Aroclor 1254	ug/kg		ND	40	1
11096-82-5	Aroclor-1260	ug/kg		ND	40	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	64.6	(29 - 133%)
Decachlorobiphenyl	73.2	(30 - 173%)

Lab Sample ID: L9810156-04
Client Sample ID: NC-SS-04
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/06/98 0915

% Solid: 83
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt	83		1.0	1	N/A	DRM	10/08/98	12:50	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 13 Oct 98 5:13PM;JOB 791;Page 7/8

Product: 808-PCB-S - PCB's (Soil)

Lab Sample ID: L9810156-05
Client Sample ID: NC-SS-05
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Soil

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 10/06/98

% Solid: 52

TCLP Extract Date: N/A
Extract Date: 10/08/98
Analysis Date: 10/09/98 Time: 06:31

Instrument: HP10
Analyst: CDB
Lab File ID: 034F0101

Method: 8082\3550
Run ID: R53954
Batch : WG47267

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/kg		ND	32	1
11104-28-2	Aroclor-1221	ug/kg		ND	32	1
11141-16-5	Aroclor-1232	ug/kg		ND	32	1
53469-21-9	Aroclor-1242	ug/kg		ND	32	1
12672-29-6	Aroclor-1248	ug/kg	270		32	1
11097-69-1	Aroclor-1254	ug/kg		ND	63	1
11096-82-5	Aroclor-1260	ug/kg		ND	63	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	69.8	(29 - 133%)
Decachlorobiphenyl	77.8	(30 - 173%)

Lab Sample ID: L9810156-05
Client Sample ID: NC-SS-05
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Soil
Collected: 10/06/98 0930

% Solid: 52
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Percent Solids	% wt.	52		1.0	1	N/A	DKM	10/08/98	12:50	D2216-90

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 13 Oct 98 5:14PM;Job 791;Page 8/8

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: November 10, 1998

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

NOAK WWTP

DATE RECEIVED: Received from client on November 5, 1998.

Sample ID: WWTP-NE-GS-01 Lab ID: 9811089-01 Collected: 11/05/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/05/98	date completed		JA	EPA 3665	
Florisil Cleanup	11/05/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/06/98	DGK		62
PCB-1221	ND	µg/kg dry wt	11/06/98	DGK		62
PCB-1232	ND	µg/kg dry wt	11/06/98	DGK		62
PCB-1242	96,000	µg/kg dry wt	11/06/98	DGK		62
PCB-1248	ND	µg/kg dry wt	11/06/98	DGK		62
PCB-1254	ND	µg/kg dry wt	11/06/98	DGK		62
PCB-1260	1,600	µg/kg dry wt	11/06/98	DGK		62
Total PCBs	98,000	µg/kg dry wt	11/06/98	DGK		190
Prep by Sonication	11/05/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	11/05/98	date completed		JA	EPA 3630	
Sulfur Cleanup	11/05/98	date completed		JA	EPA 3660	
Total Solids	88.6	% of sample		DGK	APHA 2540 B.	

near manhole/sewer

Sample ID: WWTP-TR-CP-01 Lab ID: 9811089-02 Collected: 11/05/98

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	11/05/98	date completed		JA	EPA 3665	
Florisil Cleanup	11/05/98	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	11/06/98	DGK		53
PCB-1221	ND	µg/kg dry wt	11/06/98	DGK		53
PCB-1232	ND	µg/kg dry wt	11/06/98	DGK		53
PCB-1242	170,000	µg/kg dry wt	11/06/98	DGK		53
PCB-1248	ND	µg/kg dry wt	11/06/98	DGK		53
PCB-1254	ND	µg/kg dry wt	11/06/98	DGK		53
PCB-1260	2,700	µg/kg dry wt	11/06/98	DGK		53
Total PCBs	170,000	µg/kg dry wt	11/06/98	DGK		160
Prep by Sonication	11/05/98	prep. date		JA	EPA 3550	
Silica Gel Cleanup	11/05/98	date completed		JA	EPA 3630	
Sulfur Cleanup	11/05/98	date completed		JA	EPA 3660	
Total Solids	89.1	% of sample		DGK	APHA 2540 B.	

trench between #2 and 3 pools

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 16, 1998

ANALYSIS OF: Ash Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 1, 1998.

Sample ID: ASHDMW-01 Lab ID: 9812024-01 Collected: 11/18/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Available Lime	BDL	% CaO	12/03/98	WS	ASTM C25-33	C.15
Total Solids (104 °C)	87.9	% of sample	12/10/98	JA	APHA 2540 B.	N/A/
Special Study	see	attached	12/14/98	JJB		

POTENTIAL FLYASH

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: AHSRMW-01 Lab ID: 9812024-01

Sample:
Soil sample from Weston, Kalamazoo

Request:
Determine if sample has substantial amounts of coal dust or flyash

Investigative Details:
Microscopical analysis shows the sample to contain many rounded spheres typical of flyash. The sample is a mixture of mainly black and white particles. Upon ashing some weight loss occurs as some of the carbon is volatilized (roughly 33%) but most of the black coloration remains.

The sample appears to be composed of flyash rather than coal dust. The particles do not have the sharp, conchoidal fractures of coal particles.

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: December 16, 1998

ANALYSIS OF: Ash Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on December 5, 1998.

Sample ID: ASH GP-01 Lab ID: 9812086-01 Collected: 12/31/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Available Lime	0.50	% CaO	12/07/98	WS	ASTM C25-33	0.15
Special Study	see	attached	12/14/98	JJB		

POTENTIAL FLYASH

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: January 14, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on January 8, 1999.

Sample ID: DIV-WWALL-1 Lab ID: 9901071-01 Collected: 01/08/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/11/99	date completed		WJC	EPA 3665	
Alumina Cleanup	01/11/99	date completed		WJC	EPA 3611	
Florisil Cleanup	01/11/99	date completed		WJC	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/13/99	DGK		8,600
PCB-1221	ND	µg/kg dry wt	01/13/99	DGK		8,600
PCB-1232	ND	µg/kg dry wt	01/13/99	DGK		8,600
PCB-1242	ND	µg/kg dry wt	01/13/99	DGK		8,600
PCB-1248	80,000	µg/kg dry wt	01/13/99	DGK		8,600
PCB-1254	ND	µg/kg dry wt	01/13/99	DGK		8,600
PCB-1260	ND	µg/kg dry wt	01/13/99	DGK		8,600
Total PCBs	80,000	µg/kg dry wt	01/13/99	DGK		26,000
Prep by Sonication	01/11/99	prep. date		WJC	EPA 3550	
Silica Gel Cleanup	01/11/99	date completed		WJC	EPA 3630	
Sulfur Cleanup	01/11/99	date completed		WJC	EPA 3660	
Total Solids	46.1	% of sample			APHA 2540 B.	

Sample ID: DIV-WWALL-2 Lab ID: 9901071-02 Collected: 01/08/99

TEST	RESULT	UNITS	ANALYSED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/11/99	date completed		WJC	EPA 3665	
Alumina Cleanup	01/11/99	date completed		WJC	EPA 3611	
Florisil Cleanup	01/11/99	date completed		WJC	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/11/99	DGK		110
PCB-1221	ND	µg/kg dry wt	01/11/99	DGK		77
PCB-1232	ND	µg/kg dry wt	01/11/99	DGK		110
PCB-1242	ND	µg/kg dry wt	01/11/99	DGK		110
PCB-1248	ND	µg/kg dry wt	01/11/99	DGK		77
PCB-1254	ND	µg/kg dry wt	01/11/99	DGK		77
PCB-1260	ND	µg/kg dry wt	01/11/99	DGK		160
Total PCBs	ND	µg/kg dry wt	01/11/99	DGK		350
Prep by Sonication	01/11/99	prep. date		WJC	EPA 3550	
Silica Gel Cleanup	01/11/99	date completed		WJC	EPA 3630	
Sulfur Cleanup	01/11/99	date completed		WJC	EPA 3660	
Total Solids	42.2	% of sample			APHA 2540 B.	

SOIL BETWEEN SHEET WALL & TYPE 3 CF DURING PHI DR

ND = Not Detected
MDL = Method Deotection Limit

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: January 18, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. Zanray (GBB)
Robert K. Zanray, Laboratory Manager

DATE RECEIVED: Received from client on January 15, 1999.

Sample ID: AM36-BERM-01 Lab ID: 9901135-01 Collected: 01/13/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		95
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		200
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		95
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		95
PCB-1248	550	µg/kg dry wt	01/16/99	DGK		95
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		95
PCB-1260	330	µg/kg dry wt	01/16/99	DGK		95
Total PCBs	880	µg/kg dry wt	01/16/99	DGK		390
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	39.4	% of sample		DGK	APHA 2540 B.	

Sample ID: CDPEZGS01 Lab ID: 9901135-02 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		86
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		86
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		86
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		86
PCB-1248	900	µg/kg dry wt	01/16/99	DGK		86
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		86
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		150
Total PCBs	900	µg/kg dry wt	01/16/99	DGK		320
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	49.3	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: CDPEZGS02 Lab ID: 9901135-03 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1221	370	µg/kg dry wt	01/16/99	DGK		43
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1248	260	µg/kg dry wt	01/16/99	DGK		43
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		43
Total PCBs	630	µg/kg dry wt	01/16/99	DGK		130
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	76.9	% of sample		DGK	APHA 2540 B.	

Sample ID: CDPEZGS03 Lab ID: 9901135-04 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		43
PCB-1248	300	µg/kg dry wt	01/16/99	DGK		43
PCB-1254	110	µg/kg dry wt	01/16/99	DGK		43
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		43
Total PCBs	410	µg/kg dry wt	01/16/99	DGK		130
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	88.4	% of sample		DGK	APHA 2540 B.	

Sample ID: CDPEZGS04 Lab ID: 9901135-05 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		150
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		60
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		150
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		150
PCB-1248	ND	µg/kg dry wt	01/16/99	DGK		100
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		73
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		34
Total PCBs	ND	µg/kg dry wt	01/16/99	DGK		280
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	95.7	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: CDPHZGS05 Lab ID: 9901135-06 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		47
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		47
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		47
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		47
PCB-1248	ND	µg/kg dry wt	01/16/99	DGK		58
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		47
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		47
Total PCBs	ND	µg/kg dry wt	01/16/99	DGK		160
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	81.4	% of sample		DGK	APHA 2540 B.	

Sample ID: CDPHZGS06 Lab ID: 9901135-07 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		40
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		40
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		40
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		40
PCB-1248	1,100	µg/kg dry wt	01/16/99	DGK		40
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		210
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		40
Total PCBs	1,100	µg/kg dry wt	01/16/99	DGK		290
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	86.4	% of sample		DGK	APHA 2540 B.	

Sample ID: CDPHZGS07 Lab ID: 9901135-08 Collected: 01/15/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		36
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		36
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		36
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		36
PCB-1248	140	µg/kg dry wt	01/16/99	DGK		36
PCB-1254	66	µg/kg dry wt	01/16/99	DGK		36
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		50
Total PCBs	210	µg/kg dry wt	01/16/99	DGK		160
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3660	
Total Solids	94.7	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Dectection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: PPTP0501 **Lab ID: 9901135-09** **Collected: 01/15/99**

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	01/16/99	date completed		DGK	EPA 3665	
Alumina Cleanup	01/16/99	date completed		DGK	EPA 3611	
Florisil Cleanup	01/16/99	date completed		DGK	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	01/16/99	DGK		290
PCB-1221	ND	µg/kg dry wt	01/16/99	DGK		39
PCB-1232	ND	µg/kg dry wt	01/16/99	DGK		290
PCB-1242	ND	µg/kg dry wt	01/16/99	DGK		290
PCB-1248	ND	µg/kg dry wt	01/16/99	DGK		39
PCB-1254	ND	µg/kg dry wt	01/16/99	DGK		39
PCB-1260	ND	µg/kg dry wt	01/16/99	DGK		39
Total PCBs	ND	µg/kg dry wt	01/16/99	DGK		370
Prep by Sonication	01/16/99	prep. date		DGK	EPA 3550	
Silica Gel Cleanup	01/16/99	date completed		DGK	EPA 3630	
Sulfur Cleanup	01/16/99	date completed		DGK	EPA 3650	
Total Solids	80.2	% of sample		DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Appendix 9

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim LaQuerre
Re: Kalamazoo River Superfund

DATE: March 26, 1999

ANALYSIS OF: Soil Sample

REPORTED BY: Robert K. Zahray (TBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on March 25, 1999.

Sample ID: DIV-CS-01 Lab ID: 9903329-01 Collected: 03/25/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	03/26/99	date completed		HL	EPA 3665	
Alumina Cleanup	03/26/99	date completed		HL	EPA 3611	
Florisil Cleanup	03/26/99	date completed		HL	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	03/26/99	DGK		46
PCB-1221	ND	µg/kg dry wt	03/26/99	DGK		46
PCB-1232	ND	µg/kg dry wt	03/26/99	DGK		46
PCB-1242	400	µg/kg dry wt	03/26/99	DGK		46
PCB-1248	ND	µg/kg dry wt	03/26/99	DGK		46
PCB-1254	ND	µg/kg dry wt	03/26/99	DGK		72
PCB-1260	ND	µg/kg dry wt	03/26/99	DGK		46
Total PCBs	400	µg/kg dry wt	03/26/99	DGK		170
Prep by Sonication	03/25/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	03/26/99	date completed		HL	EPA 3630	
Sulfur Cleanup	03/26/99	date completed		HL	EPA 3660	
Total Solids	68.1	% of sample	03/26/99	DGK	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

Appendix 12

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim Laquerre
Re: Kalamazoo River Superfund

DATE: April 6, 1999

ANALYSIS OF: Waste Sample

REPORTED BY: Robert K. Zahray (WJC)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on April 1, 1999.

Sample ID: PPB-CS-01 Lab ID: 9904019-01 Collected: 04/01/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	92.2	% of sample	04/06/99	JA	APHA 2540 B.	N/A
Arsenic	260	µg/kg dry wt.	04/06/99	JA	EPA 7060	42
Barium	350,000	µg/kg dry wt.	04/05/99	MBR	EPA 6010	210
Cadmium	46	µg/kg dry wt.	04/06/99	JA	EPA 7131	4.2
Chromium	2,000	µg/kg dry wt.	04/05/99	MBR	EPA 6010	210
Copper	4,800	µg/kg dry wt.	04/05/99	MBR	EPA 6010	420
Lead	5,100	µg/kg dry wt.	04/05/99	MBR	EPA 6010	2,100
Mercury	100	µg/kg dry wt.	04/02/99	WS	EPA 7471	10
Metals Prep, Solid	04/05/99	date digested		MBR	EPA 3050	
Nickel	1,800	µg/kg dry wt.	04/05/99	MBR	EPA 6010	420
Selenium	ND	µg/kg dry wt.	04/06/99	JA	EPA 7740	42
Silver	ND	µg/kg dry wt.	04/05/99	MBR	EPA 6010	420
Zinc	8,000,000	µg/kg dry wt.	04/06/99	MBR	EPA 6010	420
Acid/Permanganate Cleanup	04/02/99	date completed		BT	EPA 3665	
Alumina Cleanup	04/02/99	date completed		BT	EPA 3611	
Florisil Cleanup	04/02/99	date completed		BT	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	04/06/99	DGK		1,800
PCB-1221	ND	µg/kg dry wt	04/06/99	DGK		3,200
PCB-1232	ND	µg/kg dry wt	04/06/99	DGK		1,800
PCB-1242	ND	µg/kg dry wt	04/06/99	DGK		1,800
PCB-1248	ND	µg/kg dry wt	04/06/99	DGK		1,700
PCB-1254	ND	µg/kg dry wt	04/06/99	DGK		2,200
PCB-1260	ND	µg/kg dry wt	04/06/99	DGK		4,000
Total PCBs	ND	µg/kg dry wt	04/06/99	DGK		9,000
Prep by Sonication	04/02/99	prep. date		BT	EPA 3550	
Silica Gel Cleanup	04/02/99	date completed		BT	EPA 3630	
Sulfur Cleanup	04/02/99	date completed		BT	EPA 3660	
Total Solids	92.2	% of sample		BT	APHA 2540 B.	

DISPOSAL SAMPLES

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmes.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim La Guerre
Re: Kalamazoo River Superfund

DATE: May 13, 1999

ANALYSIS OF: Soil Samples

EXTENSION OF TYPE 3 LANDFILL AREA NEAR CREEK.

REPORTED BY: Robert K. Zahray, Laboratory Director

DATE RECEIVED: Received from client on May 6, 1999.

Sample ID: LF1-01 Lab ID: 9905086-01 Collected: 05/05/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/07/99	date completed		JA	EPA 3665	
Alumina Cleanup	05/07/99	date completed		JA	EPA 3611	
Florisil Cleanup	05/07/99	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/07/99	DGK		33
PCB-1221	ND	µg/kg dry wt	05/07/99	DGK		33
PCB-1232	ND	µg/kg dry wt	05/07/99	DGK		33
PCB-1242	1,300	µg/kg dry wt	05/07/99	DGK		33
PCB-1248	ND	µg/kg dry wt	05/07/99	DGK		33
PCB-1254	150	µg/kg dry wt	05/07/99	DGK		33
PCB-1260	ND	µg/kg dry wt	05/07/99	DGK		33
Total PCBs	1,500	µg/kg dry wt	05/07/99	DGK		100
Prep by Sonication	05/07/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	05/07/99	date completed		JA	EPA 3630	
Sulfur Cleanup	05/07/99	date completed		JA	EPA 3660	
Total Solids	90.0	% of sample		JA	APHA 2540 B.	

Sample ID: LF2-01 Lab ID: 9905086-02 Collected: 05/05/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/07/99	date completed		JA	EPA 3665	
Alumina Cleanup	05/07/99	date completed		JA	EPA 3611	
Florisil Cleanup	05/07/99	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/07/99	DGK		32
PCB-1221	ND	µg/kg dry wt	05/07/99	DGK		32
PCB-1232	ND	µg/kg dry wt	05/07/99	DGK		32
PCB-1242	3,800	µg/kg dry wt	05/07/99	DGK		32
PCB-1248	ND	µg/kg dry wt	05/07/99	DGK		32
PCB-1254	1,100	µg/kg dry wt	05/07/99	DGK		32
PCB-1260	ND	µg/kg dry wt	05/07/99	DGK		150
Total PCBs	4,900	µg/kg dry wt	05/07/99	DGK		220
Prep by Sonication	05/07/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	05/07/99	date completed		JA	EPA 3630	
Sulfur Cleanup	05/07/99	date completed		JA	EPA 3660	
Total Solids	91.6	% of sample		JA	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: LF3-01 Lab ID: 9905066-03 Collected: 05/05/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Acid/Permanganate Cleanup	05/07/99	date completed		JA	EPA 3665	
Alumina Cleanup	05/07/99	date completed		JA	EPA 3611	
Florisil Cleanup	05/07/99	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/07/99	DGK		40
PCB-1221	ND	µg/kg dry wt	05/07/99	DGK		40
PCB-1232	ND	µg/kg dry wt	05/07/99	DGK		40
PCB-1242	2,500	µg/kg dry wt	05/07/99	DGK		40
PCB-1248	ND	µg/kg dry wt	05/07/99	DGK		40
PCB-1254	330	µg/kg dry wt	05/07/99	DGK		40
PCB-1260	ND	µg/kg dry wt	05/07/99	DGK		40
Total PCBs	2,800	µg/kg dry wt	05/07/99	DGK		120
Prep by Sonication	05/07/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	05/07/99	date completed		JA	EPA 3630	
Sulfur Cleanup	05/07/99	date completed		JA	EPA 3660	
Total Solids	80.7	% of sample		JA	APHA 2540 B.	

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Tim La Guerre
Re: Kalamazoo River Superfund

DATE: May 13, 1999

ANALYSIS OF: Soil Samples

REPORTED BY: Robert K. ZaOay (TSB)
Robert K. Zamray, Laboratory Director

DATE RECEIVED: Received from client on May 6, 1999.

Sample ID: LGN4-C-01 Lab ID: 9905087-01 Collected: 05/06/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	59.9	% of sample	05/10/99	WS	APHA 2540 B.	
Arsenic	0.089	mg/kg dry wt.	05/11/99	JA	EPA 7060	0.038
Barium	12	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.18
Cadmium	0.34	mg/kg dry wt.	05/13/99	JA	EPA 7131	0.0038
Chromium	2.6	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.18
Copper	4.3	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Lead	16	mg/kg dry wt.	05/10/99	MBR	EPA 6010	1.8
Mercury	1.7	mg/kg dry wt.	05/13/99	MBR	EPA 7471	0.033
Metals Prep, Solid	05/07/99	date digested		JA	EPA 3050	
Nickel	0.41	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Selenium	0.096	mg/kg dry wt.	05/07/99	JA	EPA 7740	0.038
Silver	BDL	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Zinc	8.7	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Acid/Permanganate Cleanup	05/07/99	date completed		JA	EPA 3665	
Alumina Cleanup	05/07/99	date completed		JA	EPA 3611	
Florisil Cleanup	05/07/99	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1221	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1232	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1242	21,000	µg/kg dry wt	05/07/99	DGK		53
PCB-1248	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1254	2,200	µg/kg dry wt	05/07/99	DGK		53
PCB-1260	530	µg/kg dry wt	05/07/99	DGK		53
Total PCBs	24,000	µg/kg dry wt	05/07/99	DGK		160
Prep by Sonication	05/07/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	05/07/99	date completed		JA	EPA 3630	
Sulfur Cleanup	05/07/99	date completed		JA	EPA 3660	

LAGOON 4 COMP. AFTER CONSOLIDATION

ND = Not Detected
MDL = Method Detection Limit

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: LGN6-SW-01 Lab ID: 9905087-02 Collected: 05/06/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	57.2	% of sample	05/10/99	WS	APHA 2540 B.	
Arsenic	1.1	mg/kg dry wt.	05/11/99	JA	EPA 7060	0.038
Barium	7.0	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.18
Cadmium	0.14	mg/kg dry wt.	05/13/99	JA	EPA 7131	0.0038
Chromium	2.1	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.18
Copper	4.4	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Lead	14	mg/kg dry wt.	05/10/99	MBR	EPA 6010	1.8
Mercury	2.5	mg/kg dry wt.	05/13/99	MBR	EPA 7471	0.023
Metals Prep, Solid	05/07/99	date digested		JA	EPA 3050	
Nickel	0.43	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Selenium	0.073	mg/kg dry wt.	05/07/99	JA	EPA 7740	0.038
Silver	BDL	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Zinc	8.9	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Acid/Permanganate Cleanup	05/07/99	date completed		JA	EPA 3665	
Alumina Cleanup	05/07/99	date completed		JA	EPA 3611	
Florisil Cleanup	05/07/99	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1221	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1232	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1242	22,000	µg/kg dry wt	05/07/99	DGK		53
PCB-1248	ND	µg/kg dry wt	05/07/99	DGK		53
PCB-1254	1,900	µg/kg dry wt	05/07/99	DGK		53
PCB-1260	ND	µg/kg dry wt	05/07/99	DGK		53
Total PCBs	24,000	µg/kg dry wt	05/07/99	DGK		160
Prep by Sonication	05/07/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	05/07/99	date completed		JA	EPA 3630	
Sulfur Cleanup	05/07/99	date completed		JA	EPA 3660	

Lagoon #6 comp. after consolidation

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: LGN6-NB-01 Lab ID: 9905C87-03 Collected: 05/06/99

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Total Solids	65.2	% of sample	05/10/99	WS	APHA 2540 B.	
Arsenic	0.84	mg/kg dry wt.	05/11/99	JA	EPA 7060	0.038
Barium	6.6	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.18
Cadmium	1.1	mg/kg dry wt.	05/13/99	JA	EPA 7131	0.0038
Chromium	2.3	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.18
Copper	3.0	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Lead	13	mg/kg dry wt.	05/10/99	MBR	EPA 6010	1.8
Mercury	1.2	mg/kg dry wt.	05/13/99	MBR	EPA 7471	0.023
Metals Prep, Solid	05/07/99	date digested		JA	EPA 3050	
Nickel	0.39	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Selenium	0.042	mg/kg dry wt.	05/07/99	JA	EPA 7740	0.038
Silver	BDL	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Zinc	8.9	mg/kg dry wt.	05/10/99	MBR	EPA 6010	0.35
Acid/Permanganate Cleanup	05/07/99	date completed		JA	EPA 3665	
Alumina Cleanup	05/07/99	date completed		JA	EPA 3611	
Florisil Cleanup	05/07/99	date completed		JA	EPA 3620	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/kg dry wt	05/07/99	DGK		46
PCB-1221	ND	µg/kg dry wt	05/07/99	DGK		46
PCB-1232	ND	µg/kg dry wt	05/07/99	DGK		46
PCB-1242	37,000	µg/kg dry wt	05/07/99	DGK		46
PCB-1248	ND	µg/kg dry wt	05/07/99	DGK		46
PCB-1254	2,900	µg/kg dry wt	05/07/99	DGK		46
PCB-1260	570	µg/kg dry wt	05/07/99	DGK		46
Total PCBs	41,000	µg/kg dry wt	05/07/99	DGK		150
Prep by Sonication	05/07/99	prep. date		JA	EPA 3550	
Silica Gel Cleanup	05/07/99	date completed		JA	EPA 3630	
Sulfur Cleanup	05/07/99	date completed		JA	EPA 3660	

LAGOON #6 COMP. AFTER CONSOLIDATION

ND = Not Detected
MDL = Method Detection Limit

Printed on Recycled Paper

LABORATORY REPORT

KAR Project No. : *992458*

Client: *Roy F. Weston, Inc.*

Date Reported : *05/27/99*

Project Description : *Analysis of two soil samples from Kal. River Superfund (SC-SS-CB).*

Sample ID : *"SC-SS-CB-01"*

Sampled By : *SP of Roy F. Weston*
Sample Date : *5/26/99*
Sample Time : *1530*

Date Received : *5/26/99*
Sample Type : *soil*
KAR Sample No. : *992458-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Dry weight solids	45.34	% by weight	SM(18) 2540B mod	5/26/99	MCB	
Prep ECD	Completed		EPA 3545	5/27/99	SAS	
PCB Arcclor 1016	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1221	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1232	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1242	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1248	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1254	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1260	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	5/27/99	MSZ	
PCB (best/PCB surr spk)	71	% spike recovery	EPA 8082	5/27/99	MSZ	
X (surr spk)	53	% spike recovery	EPA 8082	5/27/99	MSZ	

NATURAL GRAY CLAY ALONG CREEK

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc..

LABORATORY REPORT

KAR Project No. : *992458*

Client: *Roy F. Weston, Inc.*

Date Reported : *05/27/99*

Project Description : ***Analysis of two soil samples from Kal. River Superfund (SC-SS-CB).***

Sample ID : ***"SC-SS-CB-02"***

Sampled By : *SP of Roy F. Weston*
Sample Date : *5/26/99*
Sample Time : *1530*

Date Received : *5/26/99*
Sample Type : *soil*
KAR Sample No. : *992458-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Dry weight solids	38.35	% by weight	SM(18) 2540B mod	5/26/99	MCB	
Prep ECD	Completed		EPA 3545	5/27/99	SAS	
PCB Aroclor 1016	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclor 1221	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclor 1232	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclor 1242	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclor 1248	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclor 1254	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclor 1260	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Aroclors, total	NA		EPA 8082	5/27/99	MSZ	
PCB (pest/PCB surr spk)	67	% spike recovery	EPA 8082	5/27/99	MSZ	
TCX (surr spk)	52	% spike recovery	EPA 8082	5/27/99	MSZ	

NATURAL GRAY CLAY ALONG CREEK

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

LABORATORY REPORT

KAR Project No. : *992458*

Client: *Roy F. Weston, Inc.*

Date Reported : *05/27/99*

Project Description : *Analysis of two soil samples from Kal. River Superfund (SC-SS-CB).*

Sample ID : ***Blank***

Sampled By : *SP of Roy F. Weston*

Sample Date :

Sample Time :

Date Received : *5/26/99*

Sample Type : *soil*

KAR Sample No. : *992458-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep ECD	Completed		EPA 3545	5/27/99	SAS	
PCB Arcclor 1016	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1221	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1232	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1242	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1248	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1254	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclor 1260	<100	ug/kg dry sample	EPA 8082	5/27/99	MSZ	
PCB Arcclors, total	NA		EPA 8082	5/27/99	MSZ	
DCB (test/PCB surr spk)	71	% spike recovery	EPA 8082	5/27/99	MSZ	
TCMX (surr spk)	45	% spike recovery	EPA 8082	5/27/99	MSZ	

This report may only be reproduced in full and not without the written consent of Roy F. Weston, Inc.

APPENDIX K1

CHAIN OF CUSTODY
(MISCELLANEOUS WATER)

WES Analytics Use Only

Custody Transfer Record/Lab Work Request

WESTON

Page 1 of 2

Client: WESTON
Est. Final Proj. Sampling Date: 10/3/98
Work Order #: 03886-515-001-6800-00
Project Contact/Phone #: HAL BLAKEMORE
AD Project Manager: RODNEY ALMOND
QC: _____ Del: _____ TAT: 24 Hr for Soil, Normal for Water
Date Rec'd: _____ Date Due: _____
Account #: _____

Refrigerator #																			
#/Type Container	Liquid			1	AMBER														
	Solid			1	GLASS														
Volume	Liquid			1	L														
	Solid			4	OZ														
Preservatives																			

ANALYSES REQUESTED →

ORGANIC								INORG									
VOA	BNA	Pest PCB	Herb					Metal	CN								

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	WESTON Analytics Use Only											
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish		AJ36-CF-GS01			S	10/3/98	1615			X									
		AJ36-CF-GS-01			S	10/3/98	1630			X									
		AJ35-CF-GS-01			S	10/3/98	1645			X									
		AJ36-CF-RS-01			W	10/3/98	1730			X									

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

24 Hour TAT For Soil

STANDARD TAT For WATER

DATE/REVISIONS:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Relinquished by	Received by	Date	Time
John Mc		10/3/98	18:00

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

WESTON Analytics Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

RFW 21-21-001/A-7/91 ____ L372 ____ L373 ____ L375 ____ L377 ____ L378 Ref# _____ Cooler# _____ 381-596a

Kenron

ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: [illegible] day

Project No.: [illegible]

Project Name: [illegible]

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	[illegible]	ADDITIONAL REQUIREMENTS
[illegible]		Y	[illegible]	[illegible]	[illegible]				X	

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible signature]	10/12/[illegible]	1015					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all co[mposite] samples prior to analysis

White – Lab Yello[w – O]ffice Pink – Field

Kenron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: 5 DAYS

Project No.: 972672

Project Name: [illegible] River Superfund

Sampler (print): [illegible]

Signature: [illegible]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	8270 SVOC	8081 Pesticides/8082 PCBs	Tal. Metals	CN	DRO	PH	8260 VOA	GRO	Temperature								ADDITIONAL REQUIREMENTS
BLY-GS-E 001		X	[illegible]	0925	Water		11		X	X	X	X	X	X	X	X									
BLY GS W 101		X	[illegible]	0925	Water		11		X	X	X	X	X	X	X	X									
TMP-001			[illegible]	1900	Water		1										X								

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
[illegible]	[illegible]	1900					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						BAILEY WATER SAMPLES

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kenmon
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: Hal Blakemore

Turn Around Requirements: 5-DAY

Project No.: 972671

Project Name: Kalamazoo River Superfund

Sampler (print): Laura Funk

Signature: [signature]

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold	8021 Pesticides/8082 PCB	8270 SVOC	TAL Metals	CN	pH	SR	GRO	8260 VOA									ADDITIONAL REQUIREMENTS
BLY-GS-S-001		X	10/15/98	16:30	water		12		X	X	X	X	X	X	X	X									
TRIP BLANK			10/16/98	12:00	water											X									

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Stephen E. Fischer	10/16/98	18:00					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						Bailey Water Samples

*Homogenize all c[illegible] samples prior to analysis

White – Lab Ye[illegible] [illegible]ffice Pink – Field

Kemron
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Project Contact: [illegible]

Turn Around Requirements: 5-Day

Project No.: 77267L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): Jenny Frost

Signature: Jenny Frost

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol CWA	Protocol SW846	NUMBER OF SAMPLES	Hold																	ADDITIONAL REQUIREMENTS
EVC-[illegible]-S01		\	[illegible]	[illegible]	[illegible]		8		.			.	.	x	x										
Trip Blank 2			[illegible]	---	[illegible]							X													

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Jenny Frost	[illegible]	[illegible]					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:
						[illegible]

*Homogenize all composite samples prior to analysis

White – Lab Yellow – Office Pink – Field

Kemron
ENVIRONMENTAL SERVICES

: 369

CHAIN-OF-CUSTODY RECORD

Project Contact: HAL BLAKEMORE

Turn Around Requirements: ~~5 Day~~ 3-Day

Project No.: 97267L

Project Name: KALAMAZOO RIVER SUPERFUND

Sampler (print): Greg Baker

Signature: Greg Franklin

Sample I.D. No.	Comp*	Grab	Date	Time	Protocol: CWA	Protocol: SW846	NUMBER OF SAMPLES	Hold	8260 VOA	TAL Metals	pH	CN	PCB	8270 SVOC	Pesticides 1262	ADDITIONAL REQUIREMENTS
EXCLG6-GS-01		X	10-21-98	11:40	water		21		X	X	X	X	X	X	X	
Trip Blank 3		X	10-21-98	16:40	water		1		X							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Greg Baker	10/21/98	17:00					

Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time	Remarks:

*Homogenize all c samples prior to analysis

White – Lab Y Office Pink – Field

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT SAMPLE -- CHAIN OF CUSTODY FORM

Project Name: WESTON - KALAMAZOO RIVER SUPERFUND
Name of Sampler: Laura Funk, Gopa Nair

ESI #	Date	Time	Sample Matrix	Sample Identification	No. Cont.	Analyses Requested
	10-23-98	11:50	W	RS-CF -003	1	PCB

Remarks:

5 Day TAT

Rinsate sample

Samples Relinquished By:	Samples Transported By:	Samples Received By:
Affiliation: WESTON	Affiliation:	Affiliation: WMESI
Date: 10/23/98 Time: 1630	Date: Time:	Date: Time:

SAMPLE MATRIX CODES:

W = Water
GW = Groundwater
SW = Surface Water
WW = Wastewater
WST = Waste
S = Soil
SL = Sludge
O = Other

APPENDIX K2

MISCELLANEOUS WATER ANALYTICAL DATA

MISCELLANEOUS WATER ANALYTICAL DATA

Sample I.D. #	Sample Type	Sample Date	Laboratory	Analyses Performed								
				PCB (*u* g/L)	Metals	SVOC	VOC	DRO	GRO	Pesticides	Cyanide	pH
RS-CF-001	Rinsate	10/3/98	Kemron	ND								
RS-CF-002	Rinsate	10/12/98	Kemron	ND								
BLY-GS-E-001	Bailey Water	10/14/98	Kemron	ND	x	x	x	x	x	x	x	x
BLY-GS-W-001	Bailey Water	10/14/98	Kemron	ND	x	x	x	x	x	x	x	x
BLY-GS-S-001	Bailey Water	10/15/98	Kemron	0.74	x	x	x	x	x	x	x	x
Trip Blank	Blank for BLY-GS	10/16/98	Kemron				x					
EXC-LG1-GS-01	Lagoon 1 Infiltration	10/20/98	Kemron	ND	x	x	x			x	x	x
Trip Blank 2	Blank for EXC-LG1	10/20/98	Kemron				x					
EXC-LG6-GS-01	Lagoon 6 Infiltration	10/21/98	Western Michigan	1.9	x	x	x			x	x	x
Trip Blank 3	Blank for EXC-LG6	10/21/98	Western Michigan				x					
RS-CF-003	Rinsate	10/23/98	Western Michigan	ND								

x = analysis performed, see analytical data for results

Login #L9810106
October 13, 1998 10:09 am

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810106-01
Client Sample ID: RS-CP-001
Site/Work ID: KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/03/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/07/98
Analysis Date: 10/07/98 Time:

Instrument: HP4
Analyst: ECL
Lab File ID: 020P0101

Method: 8082\3510C
Run ID: R53712
Batch : WC47202

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	59.0	(13 - 154%)
Decachlorobiphenyl	48.6	(25 - 140%)

RINSATE

RL = Reporting Limit

Login #L9810305
October 21, 1998 12:49 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810305-01
Client Sample ID: RS-CF-002
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/12/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 13:05

Instrument: HP10
Analyst: CDB
Lab File ID: 054R0101

Method: 8082\3510C
Run ID: R54593
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L		ND	0.10	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		43.2	(13 - 154%)		
	Decachlorobiphenyl		42.2	(25 - 140%)		

RINSATE

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 21 Oct 98 2:56PM;Job 76; Page 4/4

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

PO Number:
Account Number: WESTON-472

Login #: L9810366
Report Date: 10/23/98
Work ID: 97267L/KALAMAZOO RIVER
Date Received: 10/16/98

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810366-01	BLY-GS-E-001	L9810366-02	BLY-GS-W-001

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
Dennis S. Tepe

kemron
ENVIRONMENTAL SERVICES

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 23 Oct 98 5:36PM;Job 202;Page 15/33

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-B-001
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/15/98 0925

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Cyanide, Total	mg/L		ND	0.01	1	N/A	JWR	10/19/98	15:00	9010B\9014
pH	S.U.	7.65			1	N/A	TJW	10/16/98	13:40	150.1
Silver, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Aluminum, Total	mg/L		ND	0.10	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Arsenic, Total	mg/L		ND	0.004	1	N/A	RSS	10/22/98	12:28	7060A
Barium, Total	mg/L	0.078		0.01	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Beryllium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Calcium, Total	mg/L	96		0.20	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Cobalt, Total	mg/L		ND	0.02	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Chromium, Total	mg/L		ND	0.02	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Copper, Total	mg/L		ND	0.02	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Iron, Total	mg/L	0.064		0.04	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Mercury, Total	mg/L		ND	0.0002	1	N/A	KRA	10/21/98	12:31	7470A\7470A
Potassium, Total	mg/L	2.2		1.0	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Magnesium, Total	mg/L	28		0.50	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Manganese, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Sodium, Total	mg/L	50		0.50	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Nickel, Total	mg/L		ND	0.04	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Lead, Total	mg/L		ND	0.005	1	N/A	RSS	10/23/98	09:30	7421
Antimony, Total	mg/L		ND	0.02	1	N/A	CRC	10/21/98	14:30	7041\3020A
Selenium, Total	mg/L		ND	0.004	1	N/A	RSS	10/21/98	10:55	7740
Thallium, Total	mg/L		ND	0.005	1	N/A	CRC	10/22/98	08:45	7841
Vanadium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:20	6010B\3005A
Zinc, Total	mg/L	0.038		0.02	1	N/A	KHA	10/21/98	15:20	6010B\3005A

Sent By: KEMRON On VALLEY LAB;

L - Reporting Limit

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-E-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 13:40

Instrument: HP10
Analyst: CDB
Lab File ID: 055R0101

Method: 8082\3510C
Run ID: R54593
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	30.5	(13 - 154%)
Decachlorobiphenyl	60.0	(25 - 140%)

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-E-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/22/98 Time:

Instrument: HP9
Analyst: ECL
Lab File ID: 897

Method: 8081A\3510C
Run ID: R54771
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1

L = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:43PM;JOB 202;Page 10/33

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-E-001
Site/Work ID: 97257L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/22/98 Time:

Instrument: HP9
Analyst: ECL
Lab File ID: 897

Method: 8081A\3510C
Run ID: R54771
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	32.7	(13 - 154%)
Decachlorobiphenyl	70.7	(25 - 140%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB;

KEMRON ENVIRONMENTAL SERVICES

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9810366 01	Dil. Type: N/A	Sample Weight: N/A	
Client Sample ID: BLY-GS-E-001	COC Info: N/A	Extract Volume: N/A	
Site/Work ID: 97267L/KALAMAZOO RIVER			
Matrix: Water	Date Collected: 10/15/98	% Solid: N/A	
TCLP Extract Date: N/A	Instrument: HP2	Method: 8015\3510	
Extract Date: 10/20/98	Analyst: HV	Run ID: R54788	
Analysis Date: 10/21/98 Time: 13:55	Lab File ID: 004R0101	Batch : WG48025	

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/L		ND	100	1
	SURROGATES- In Percent Recovery:					
	o Terphenyl		109	(50 - 150%)		
	Octacosane		39.7	(26 - 152%)		

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810366-01	Dil. Type: N/A	Sample Weight: N/A	
Client Sample ID: BLY-GS-E-001	COC Info: N/A	Extract Volume: N/A	
Site/Work ID: 97267L/KALAMAZOO RIVER			
Matrix: Water	Date Collected: 10/15/98	% Solid: N/A	
TCLP Extract Date: N/A	Instrument: HPMS5	Method: 8270C\3510C	
Extract Date: 10/19/98	Analyst: MDC	Run ID: R54632	
Analysis Date: 10/20/98 Time: 12:31	Lab File ID: 8196	Batch : WG48001	

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/L		ND	11	2.2
111-44-4	Bis(2-Chloroethyl)ether	ug/L		ND	11	2.2
95-57-8	2-Chlorophenol	ug/L		ND	11	2.2
541-73-1	1,3-Dichlorobenzene	ug/L		ND	11	2.2
106-46-7	1,4-Dichlorobenzene	ug/L		ND	11	2.2
100-51-6	Benzyl alcohol	ug/L		ND	11	2.2
95-50-1	1,2-Dichlorobenzene	ug/L		ND	11	2.2
95-48-7	2-Methylphenol	ug/L		ND	11	2.2
108-39-4	3-Methylphenol	ug/L		ND	11	2.2
108-60-1	bis(2-Chloroisopropyl)ether	ug/L		ND	11	2.2
106-44 5	4 Methylphenol	ug/L		ND	11	2.2
621-64-7	N-Nitroso di n propylamine	ug/L		ND	11	2.2
67-72-1	Hexachloroethane	ug/L		ND	11	2.2

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 OCT 98 5:48PM;JOB coverage 20/33

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-E-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 12:31

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8196

Method: 8270C\3510C
Run ID: R54632
Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
98-95-3	Nitrobenzene	ug/L		ND	11	2.2
78-59-1	Isophorone	ug/L		ND	11	2.2
88-75-5	2-Nitrophenol	ug/L		ND	11	2.2
105-67-9	2,4-Dimethylphenol	ug/L		ND	11	2.2
65-85-0	Benzoic acid	ug/L		ND	55	2.2
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	11	2.2
120-83-2	2,4-Dichlorophenol	ug/L		ND	11	2.2
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	11	2.2
91-20-3	Naphthalene	ug/L		ND	11	2.2
106-47-8	4-Chloroaniline	ug/L		ND	11	2.2
87-68-3	Hexachlorobutadiene	ug/L		ND	11	2.2
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	11	2.2
91-57-6	2-Methylnaphthalene	ug/L		ND	11	2.2
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	11	2.2
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	11	2.2
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	11	2.2
91-58-7	2-Chloronaphthalene	ug/L		ND	55	2.2
88-74-4	2-Nitroaniline	ug/L		ND	11	2.2
131-11-3	Dimethylphthalate	ug/L		ND	55	2.2
208-96-8	Acenaphthylene	ug/L		ND	11	2.2
606-20-2	2,6-Dinitrotoluene	ug/L		ND	11	2.2
99-09-2	3-Nitroaniline	ug/L		ND	11	2.2
83-32-9	Acenaphthene	ug/L		ND	55	2.2
51-28-5	2,4-Dinitrophenol	ug/L		ND	11	2.2
100-02-7	4-Nitrophenol	ug/L		ND	55	2.2
132-64-9	Dibenzofuran	ug/L		ND	55	2.2
121-14-2	2,4-Dinitrotoluene	ug/L		ND	11	2.2
84-66-2	Diethylphthalate	ug/L		ND	11	2.2
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	11	2.2
86-73-7	Fluorene	ug/L		ND	11	2.2
100-01-6	4-Nitroaniline	ug/L		ND	11	2.2
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	55	2.2
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	55	2.2
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	11	2.2
118-74-1	Hexachlorobenzene	ug/L		ND	11	2.2
87-86-5	Pentachlorophenol	ug/L		ND	11	2.2
85-01-8	Phenanthrene	ug/L		ND	55	2.2
120-12-7	Anthracene	ug/L		ND	11	2.2
84-74-2	Di-N-Butylphthalate	ug/L		ND	11	2.2

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB;

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID:	L9810366-01	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	BLY-GS-E-001	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	97267L/KALAMAZOO RIVER		
Matrix:	Water	Date Collected: 10/15/98	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HPMS5	Method: 8270C\3510C
Extract Date:	10/19/98	Analyst: MDC	Run ID: R54632
Analysis Date:	10/20/98 Time: 12:31	Lab File ID: 8196	Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
206-44-0	Fluoranthene	ug/L		ND	11	2.2
129-00-0	Pyrene	ug/L		ND	11	2.2
85-68-7	Butylbenzylphthalate	ug/L		ND	11	2.2
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	22	2.2
56-55-3	Benzo(a)anthracene	ug/L		ND	11	2.2
218-01-9	Chrysene	ug/L		ND	11	2.2
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	11	2.2
117-84-0	Di-n-octylphthalate	ug/L		ND	11	2.2
205-99-2	Benzo(b)fluoranthene	ug/L		ND	11	2.2
207-08-9	Benzo(k)fluoranthene	ug/L		ND	11	2.2
50-32-8	Benzo(a)pyrene	ug/L		ND	11	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	11	2.2
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	11	2.2
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	11	2.2

SURROGATES- In Percent Recovery:

2-Fluorophenol	38.3	(21 - 100%)
Phenol-d5	25.7	(10 - 94%)
Nitrobenzene-d5	59.7	(35 - 114%)
2-Fluorobiphenyl	63.4	(43 - 116%)
2,4,6-Tribromophenol	77.5	(10 - 123%)
p-Terphenyl-d14	109	(33 - 141%)

RL = Reporting Limit

Sent By: KEMRON ON VALLEY LABS

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 23 Oct 98 8:58AM;000 eveiraye 23/33

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-E-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 12:10

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26947

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L	1.3	J	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L	4.0	J	5.0	1
108-88-3	Toluene	ug/L	0.31	J	5.0	1

RL = Reporting Limit

Product: 8260 - Volatile Organics

Lab Sample ID: L9810366-01
Client Sample ID: BLY-GS-E-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 12:10

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26947

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	97.4	(86 - 118%)
1,2-Dichloroethane-d4	95.5	(80 - 120%)
Toluene-d8	99.8	(88 - 110%)
4-Bromofluorobenzene	99.9	(86 - 115%)

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/15/98 0935
COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Cyanide, Total	mg/L		ND	0.01	1	N/A	JWR	10/19/98	15:00	9010B\9014
pH	S.U.	7.59			1	N/A	TJW	10/16/98	13:40	150.1
Silver, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Aluminum, Total	mg/L	11		0.10	1	N/A	KHA	10/21/98	15:24	6010B\3005A

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 6:02PM;Job average 47/53

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/15/98 0935

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Arsenic, Total	mg/L	0.021		0.004	1	N/A	RSS	10/22/98	12:28	7060A
Barium, Total	mg/L	0.80		0.01	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Beryllium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Calcium, Total	mg/L	170		0.20	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Cobalt, Total	mg/L		ND	0.02	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Chromium, Total	mg/L	0.049		0.02	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Copper, Total	mg/L	0.11		0.02	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Iron, Total	mg/L	45		0.04	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Mercury, Total	mg/L	0.0024		0.0002	1	N/A	KRA	10/21/98	12:31	7470A\7470A
Potassium, Total	mg/L	3.0		1.0	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Magnesium, Total	mg/L	38		0.50	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Manganese, Total	mg/L	6.3		0.01	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Sodium, Total	mg/L	49		0.50	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Nickel, Total	mg/L		ND	0.04	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Lead, Total	mg/L	0.45		0.05	10	N/A	RSS	10/23/98	09:30	7421
Antimony, Total	mg/L		ND	0.02	1	N/A	CRC	10/21/98	14:30	7041\3020A
Selenium, Total	mg/L		ND	0.004	1	N/A	RSS	10/21/98	10:55	7740
Thallium, Total	mg/L		ND	0.005	1	N/A	CRC	10/22/98	08:45	7841
Vanadium, Total	mg/L	0.018		0.01	1	N/A	KHA	10/21/98	15:24	6010B\3005A
Zinc, Total	mg/L	0.32		0.02	1	N/A	KHA	10/21/98	15:24	6010B\3005A

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 14:16

Instrument: HP10
Analyst: CDB
Lab File ID: 056R0101

Method: 8082\3510C
Run ID: R54593
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L		ND	0.10	1

RL = Reporting Limit

Sent By: KEMRON ON VALLEY LAB; 1 740 373 4638; 23 OCT 98 8:18PM;08 Average 45/53

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID:	L9810366-02	Dil. Type:	N/A	Sample Weight:	N/A
Client Sample ID:	BLY-GS-W-001	COC Info:	N/A	Extract Volume:	N/A
Site/Work ID:	97267L/KALAMAZOO RIVER				
Matrix:	Water	Date Collected:	10/15/98	% Solid:	N/A
TCLP Extract Date:	N/A	Instrument:	HP10	Method:	8082\3510C
Extract Date:	10/19/98	Analyst:	CDB	Run ID:	R54593
Analysis Date:	10/20/98 Time: 14:16	Lab File ID:	056R0101	Batch :	WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12672-29-6	Aroclor-1248	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L	0.018	J	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	61.0	(13 - 154%)
Decachlorobiphenyl	35.8	(25 - 140%)

Product: 8081P - Organochlorine Pesticides

Lab Sample ID:	L9810366 02	Dil. Type:	N/A	Sample Weight:	N/A
Client Sample ID:	BLY-GS-W-001	COC Info:	N/A	Extract Volume:	N/A
Site/Work ID:	97267L/KALAMAZOO RIVER				
Matrix:	Water	Date Collected:	10/15/98	% Solid:	N/A
TCLP Extract Date:	N/A	Instrument:	HP9	Method:	8081A\3510C
Extract Date:	10/19/98	Analyst:	ECL	Run ID:	R54771
Analysis Date:	10/22/98 Time:	Lab File ID:	898	Batch :	WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L	0.057	J	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 OCT 98 8:20AM; 206;Page 20/30

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/22/98 Time:

Instrument: HP9
Analyst: ECL
Lab File ID: 898

Method: 8081A\3510C
Run ID: R54771
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L	0.034	J	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	29.4	(13 - 154%)
Decachlorobiphenyl	37.8	(25 - 140%)

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/20/98
Analysis Date: 10/21/98 Time: 15:26

Instrument: HP2
Analyst: HV
Lab File ID: 005R0101

Method: 8015\3510
Run ID: R54788
Batch : WG48025

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/L		ND	100	1.02

RL = Reporting Limit

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID: L9810366-02	Dil. Type: N/A	Sample Weight: N/A	
Client Sample ID: BLY-GS-W-001	COC Info: N/A	Extract Volume: N/A	
Site/Work ID: 97267L/KALAMAZOO RIVER			
Matrix: Water	Date Collected: 10/15/98	% Solid: N/A	
TCLP Extract Date: N/A	Instrument: HP2	Method: 8015\3510	
Extract Date: 10/20/98	Analyst: HV	Run ID: R54788	
Analysis Date: 10/21/98 Time: 15:26	Lab File ID: 005R0101	Batch : WG48025	

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
	SURROGATES- In Percent Recovery:					
	o-Terphenyl		54.7	(50 - 150%)		
	Octacosane		64.1	(26 - 152%)		

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810366-02	Dil. Type: N/A	Sample Weight: N/A	
Client Sample ID: BLY-GS-W-001	COC Info: N/A	Extract Volume: N/A	
Site/Work ID: 97267L/KALAMAZOO RIVER			
Matrix: Water	Date Collected: 10/15/98	% Solid: N/A	
TCLP Extract Date: N/A	Instrument: HPMS5	Method: 8270C\3510C	
Extract Date: 10/19/98	Analyst: MDC	Run ID: R54632	
Analysis Date: 10/20/98 Time: 13:11	Lab File ID: 8197	Batch : WG48001	

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/L		ND	11	2.2
111-44-4	Bis(2-Chloroethyl)ether	ug/L		ND	11	2.2
95-57-8	2-Chlorophenol	ug/L		ND	11	2.2
541-73-1	1,3-Dichlorobenzene	ug/L		ND	11	2.2
106-46-7	1,4-Dichlorobenzene	ug/L		ND	11	2.2
100-51-6	Benzyl alcohol	ug/L		ND	11	2.2
95-50-1	1,2-Dichlorobenzene	ug/L		ND	11	2.2
95-48-7	2-Methylphenol	ug/L		ND	11	2.2
108-39-4	3-Methylphenol	ug/L		ND	11	2.2
108-60-1	bis(2-Chloroisopropyl)ether	ug/L		ND	11	2.2
106-44-5	4-Methylphenol	ug/L		ND	11	2.2
621-64-7	N-Nitroso-di-n-propylamine	ug/L		ND	11	2.2
67-72-1	Hexachloroethane	ug/L		ND	11	2.2
98-95-3	Nitrobenzene	ug/L		ND	11	2.2

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB;

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 13:11

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8197

Method: 8270C\3510C
Run ID: R54632
Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
78-59-1	Isophorone	ug/L		ND	11	2.2
88-75-5	2-Nitrophenol	ug/L		ND	11	2.2
105-67-9	2,4-Dimethylphenol	ug/L		ND	11	2.2
65-85-0	Benzoic acid	ug/L		ND	55	2.2
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	11	2.2
120-83-2	2,4-Dichlorophenol	ug/L		ND	11	2.2
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	11	2.2
91-20-3	Naphthalene	ug/L		ND	11	2.2
106-47-8	4-Chloroaniline	ug/L		ND	11	2.2
87-68-3	Hexachlorobutadiene	ug/L		ND	11	2.2
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	11	2.2
91-57-6	2-Methylnaphthalene	ug/L		ND	11	2.2
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	11	2.2
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	11	2.2
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	11	2.2
91 58 7	2-Chloronaphthalene	ug/L		ND	55	2.2
88 74 4	2-Nitroaniline	ug/L		ND	11	2.2
131 11-3	Dimethylphthalate	ug/L		ND	55	2.2
208-96-8	Acenaphthylene	ug/L		ND	11	2.2
606 20 2	2,6-Dinitrotoluene	ug/L		ND	11	2.2
99-09-2	3-Nitroaniline	ug/L		ND	11	2.2
83 32 9	Acenaphthene	ug/L		ND	55	2.2
51 28 5	2,4-Dinitrophenol	ug/L		ND	11	2.2
100 02 7	4-Nitrophenol	ug/L		ND	55	2.2
132-64-9	Dibenzofuran	ug/L		ND	55	2.2
121-14-2	2,4-Dinitrotoluene	ug/L		ND	11	2.2
84 66 2	Diethylphthalate	ug/L		ND	11	2.2
7005 72 3	4-Chlorophenyl-phenyl ether	ug/L		ND	11	2.2
86-73-7	Fluorene	ug/L		ND	11	2.2
100-01-6	4-Nitroaniline	ug/L		ND	11	2.2
534 52 1	4,6-Dinitro-2-methylphenol	ug/L		ND	55	2.2
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	55	2.2
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	11	2.2
118-74-1	Hexachlorobenzene	ug/L		ND	11	2.2
87-86-5	Pentachlorophenol	ug/L		ND	11	2.2
85-01-8	Phenanthrene	ug/L		ND	55	2.2
120-12-7	Anthracene	ug/L		ND	11	2.2
84-74-2	Di-N-Butylphthalate	ug/L		ND	11	2.2
206-44-0	Fluoranthene	ug/L		ND	11	2.2

RL = Reporting Limit

Sent By: KEMRON On VALLEY LAB;

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 13:11

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8197

Method: 8270C\3510C
Run ID: R54632
Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
129-00-0	Pyrene	ug/L		ND	11	2.2
85-68-7	Butylbenzylphthalate	ug/L		ND	11	2.2
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	22	2.2
56-55-3	Benzo(a)anthracene	ug/L		ND	11	2.2
218-01-9	Chrysene	ug/L		ND	11	2.2
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	11	2.2
117-84-0	Di-n-octylphthalate	ug/L		ND	11	2.2
205-99-2	Benzo(b)fluoranthene	ug/L		ND	11	2.2
207-08-9	Benzo(k)fluoranthene	ug/L		ND	11	2.2
50-32-8	Benzo(a)pyrene	ug/L		ND	11	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	11	2.2
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	11	2.2
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	11	2.2

SURROGATES- In Percent Recovery:

2 Fluorophenol	35.0	(21 - 100%)
Phenol-d5	26.6	(10 - 94%)
Nitrobenzene-d5	65.8	(35 - 114%)
2-Fluorobiphenyl	59.4	(43 - 116%)
2,4,6 Tribromophenol	68.9	(10 - 123%)
p Terphenyl-d14	39.9	(33 - 141%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB;

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: GRO - Gasoline Range Organics

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/19/98 Time: 10:09

Instrument: HP5
Analyst: VMN
Lab File ID: 005F0101

Method: 8015
Run ID: R54796
Batch : WG47963

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics.....	ug/L		ND	100	1

SURROGATES- In Percent Recovery:
Chlorobenzene..... 89.7 (74 - 138%)

Product: 8260 - Volatile Organics

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 14:00

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26950

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone.....	ug/L	2.9	J	100	1
71-43-2	Benzene.....	ug/L		ND	5.0	1
108-86-1	Bromobenzene.....	ug/L		ND	5.0	1
74-97-5	Bromochloromethane.....	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane.....	ug/L		ND	5.0	1
75-25-2	Bromoform.....	ug/L		ND	5.0	1
74-83-9	Bromomethane.....	ug/L		ND	10	1
78-93-3	2-Butanone.....	ug/L		ND	100	1
104-51-8	n-Butylbenzene.....	ug/L	0.30	J	5.0	1
135-98-8	sec-Butylbenzene.....	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene.....	ug/L		ND	5.0	1
75-15-0	Carbon disulfide.....	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride.....	ug/L		ND	5.0	1
108-90-7	Chlorobenzene.....	ug/L		ND	5.0	1

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 23 OCT 98 8:26PM;JOB 202;Page 02/03

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 14:00

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26950

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2 Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46 7	1,4 Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107 06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35 4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2 Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans 1,2-Dichloroethene	ug/L		ND	5.0	1
78-87 5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2 Dichloropropane	ug/L		ND	5.0	1
10061 01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061 02 6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1 Dichloropropene	ug/L		ND	5.0	1
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591 78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10 1	4 Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L	1.2	J	5.0	1
91-20-3	Naphthalene	ug/L	1.0	J	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L	0.42	J	5.0	1

RL = Reporting Limit

Login #L9810366
October 23, 1998 04:22 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810366-02
Client Sample ID: BLY-GS-W-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 14:00

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26950

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
87-61-6	1,2,3-Trichlorobenzene	ug/L	0.49	J	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L	0.59	J	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L	0.25	J,X	5.0	1
106-42-3	p-Xylene	ug/L		X	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	98.7	(86 - 118%)
1,2-Dichloroethane-d4	97.0	(80 - 120%)
Toluene-d8	101	(88 - 110%)
4-Bromofluorobenzene	104	(86 - 115%)

RL - Reporting Limit

Sent By: KEMRON ON VALLEY LAB;

KEMRON Environmental Services
[illegible] Stockline Park
Marietta, Ohio 45750
Phone (740) [illegible]

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

PO Number:
Account Number: WESTON 472

Sample #: [illegible]
Report Date: [illegible]
Work ID: [illegible] KALAMAZOO RIVER
Date Received: [illegible]

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810393-01	BLY-GS S 001	[illegible]	[illegible]

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDEC ELAP ID [illegible]

Certified By
Donald S. Ingo

KEMRON
ENVIRONMENTAL SERVICES

Login #L9810393
October 23, 1998 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/15/98 1630

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Cyanide, Total	mg/L	0.015		0.01	1	N/A	JWR	10/19/98	15:00	9010B\9014
pH	S.U.	7.33			1	N/A	DLN	10/17/98	11:00	150.1
Silver, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Aluminum, Total	mg/L	15		0.10	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Arsenic, Total	mg/L	0.02		0.004	1	N/A	RSS	10/22/98	12:28	7060A
Barium, Total	mg/L	0.66		0.01	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Beryllium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Calcium, Total	mg/L	210		0.20	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Cobalt, Total	mg/L		ND	0.02	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Chromium, Total	mg/L	0.037		0.02	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Copper, Total	mg/L	0.037		0.02	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Iron, Total	mg/L	27		0.04	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Mercury, Total	mg/L	0.0011		0.0002	1	N/A	KRA	10/21/98	12:31	7470A\7470A
Potassium, Total	mg/L	5.7		1.0	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Magnesium, Total	mg/L	68		0.50	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Manganese, Total	mg/L	2.4		0.01	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Sodium, Total	mg/L	150		0.50	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Nickel, Total	mg/L		ND	0.04	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Lead, Total	mg/L	0.23		0.05	10	N/A	RSS	10/23/98	09:30	7421
Antimony, Total	mg/L		ND	0.02	1	N/A	RSS	10/23/98	13:30	7041\3020A
Selenium, Total	mg/L		ND	0.004	1	N/A	RSS	10/21/98	10:55	7740
Thallium, Total	mg/L		ND	0.005	1	N/A	CRC	10/22/98	08:45	7841
Vanadium, Total	mg/L	0.039		0.01	1	N/A	KHA	10/21/98	15:47	6010B\3005A
Zinc, Total	mg/L	0.13		0.02	1	N/A	KHA	10/21/98	15:47	6010B\3005A

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:04PM;Job 202;Page 4/33

KEMRON ENVIRONMENTAL SERVICES

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 16:03

Instrument: HP10
Analyst: CDB
Lab File ID: 059R0101

Method: 8082\3510C
Run ID: R54593
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L	0.74		0.10	1
12672-29-6	Aroclor-1248	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L		ND	0.10	1

SURROGATES- In Percent Recovery:

2,4,5,6-Tetrachloro-m-xylene	97.0	(13 - 154%)
Decachlorobiphenyl	25.6	(25 - 140%)

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/22/98 Time:

Instrument: HP9
Analyst: ECL
Lab File ID: 899

Method: 8081A\3510C
Run ID: R54771
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:07PM;Job 202;Page 5/33

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/22/98 Time:

Instrument: HP9
Analyst: ECL
Lab File ID: 899

Method: 8081A\3510C
Run ID: R54771
Batch : WG47987

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		45.3	(13 - 154%)		
	Decachlorobiphenyl		29.9	(25 - 140%)		

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:10PM;Job 202;Page 6/33

Product: DRO - Diesel Range Organics (GC)

Lab Sample ID:	L9810393-01	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	BLY-GS-S-001	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	97267L/KALAMAZOO RIVER		
Matrix:	Water	Date Collected: 10/15/98	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HP2	Method: 8015\3510
Extract Date:	10/20/98	Analyst: HV	Run ID: R54788
Analysis Date:	10/21/98 Time: 16:49	Lab File ID: 006R0101	Batch : WG48025

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
68334-30-5	Diesel Range Organics	ug/L		ND	100	1
	SURROGATES- In Percent Recovery:					
	o-Terphenyl		78.2	(50 - 150%)		
	Octacosane		47.9	(26 - 152%)		

Product: 8270 - Semivolatile Compounds

Lab Sample ID:	L9810393-01	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	BLY-GS-S-001	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	97267L/KALAMAZOO RIVER		
Matrix:	Water	Date Collected: 10/15/98	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HPMS5	Method: 8270C\3510C
Extract Date:	10/19/98	Analyst: MDC	Run ID: R54632
Analysis Date:	10/20/98 Time: 13:51	Lab File ID: 8198	Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/L		ND	12	2.3
111-44-4	Bis(2-Chloroethyl)ether	ug/L		ND	12	2.3
95-57-8	2-Chlorophenol	ug/L		ND	12	2.3
541-73-1	1,3-Dichlorobenzene	ug/L		ND	12	2.3
106-46-7	1,4-Dichlorobenzene	ug/L		ND	12	2.3
100-51-6	Benzyl alcohol	ug/L		ND	12	2.3
95-50-1	1,2-Dichlorobenzene	ug/L		ND	12	2.3
95-48-7	2-Methylphenol	ug/L		ND	12	2.3
108-39-4	3-Methylphenol	ug/L		ND	12	2.3
108-60-1	bis(2-Chloroisopropyl)ether	ug/L		ND	12	2.3
106-44-5	4-Methylphenol	ug/L		ND	12	2.3
621-64-7	N-Nitroso-di-n-propylamine	ug/L		ND	12	2.3
67-72-1	Hexachloroethane	ug/L		ND	12	2.3

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:12PM;Job 202;Page 7/33

Login #L9810393
October 23, 1998 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Sample Weight: N/A
Extract Volume: N/A

Date Collected: 10/15/98

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 13:51

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8198

Method: 8270C\3510C
Run ID: R54632
Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
98-95-3	Nitrobenzene	ug/L		ND	12	2.3
78-59-1	Isophorone	ug/L		ND	12	2.3
88-75-5	2-Nitrophenol	ug/L		ND	12	2.3
105-67-9	2,4-Dimethylphenol	ug/L		ND	12	2.3
65-85-0	Benzoic acid	ug/L		ND	58	2.3
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L		ND	12	2.3
120-83-2	2,4-Dichlorophenol	ug/L		ND	12	2.3
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	12	2.3
91-20-3	Naphthalene	ug/L		ND	12	2.3
106-47-8	4-Chloroaniline	ug/L		ND	12	2.3
87-68-3	Hexachlorobutadiene	ug/L		ND	12	2.3
59-50-7	4-Chloro-3-methylphenol	ug/L		ND	12	2.3
91-57-6	2-Methylnaphthalene	ug/L		ND	12	2.3
77-47-4	Hexachlorocyclopentadiene	ug/L		ND	12	2.3
88-06-2	2,4,6-Trichlorophenol	ug/L		ND	12	2.3
95-95-4	2,4,5-Trichlorophenol	ug/L		ND	12	2.3
91-58-7	2-Chloronaphthalene	ug/L		ND	58	2.3
88-74-4	2-Nitroaniline	ug/L		ND	12	2.3
131-11-3	Dimethylphthalate	ug/L		ND	58	2.3
208-96-8	Acenaphthylene	ug/L		ND	12	2.3
606-20-2	2,6-Dinitrotoluene	ug/L		ND	12	2.3
99-09-2	3-Nitroaniline	ug/L		ND	12	2.3
83-32-9	Acenaphthene	ug/L		ND	58	2.3
51-28-5	2,4-Dinitrophenol	ug/L		ND	12	2.3
100-02-7	4-Nitrophenol	ug/L		ND	58	2.3
132-64-9	Dibenzofuran	ug/L		ND	58	2.3
121-14-2	2,4-Dinitrotoluene	ug/L		ND	12	2.3
84-66-2	Diethylphthalate	ug/L		ND	12	2.3
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	12	2.3
86-73-7	Fluorene	ug/L		ND	12	2.3
100-01-6	4-Nitroaniline	ug/L		ND	12	2.3
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	58	2.3
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	58	2.3
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	12	2.3
118-74-1	Hexachlorobenzene	ug/L		ND	12	2.3
87-86-5	Pentachlorophenol	ug/L		ND	12	2.3
85-01-8	Phenanthrene	ug/L		ND	58	2.3
120-12-7	Anthracene	ug/L		ND	12	2.3
84-74-2	Di-N-Butylphthalate	ug/L		ND	12	2.3

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 23 Oct 98 5:15PM;Job 202;Page 8/33

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/19/98
Analysis Date: 10/20/98 Time: 13:51

Instrument: HPMS5
Analyst: MDC
Lab File ID: 8198

Method: 8270C\3510C
Run ID: R54632
Batch : WG48001

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
206-44-0	Fluoranthene	ug/L		ND	12	2.3
129-00-0	Pyrene	ug/L		ND	12	2.3
85-68-7	Butylbenzylphthalate	ug/L		ND	12	2.3
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	23	2.3
56-55-3	Benzo(a)anthracene	ug/L		ND	12	2.3
218-01-9	Chrysene	ug/L		ND	12	2.3
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	12	2.3
117-84-0	Di-n-octylphthalate	ug/L		ND	12	2.3
205-99-2	Benzo(b)fluoranthene	ug/L		ND	12	2.3
207-08-9	Benzo(k)fluoranthene	ug/L		ND	12	2.3
50-32-8	Benzo(a)pyrene	ug/L		ND	12	2.3
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	12	2.3
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	12	2.3
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	12	2.3

SURROGATES- In Percent Recovery:

2-Fluorophenol	41.3	(21 - 100%)
Phenol-d5	31.6	(10 - 94%)
Nitrobenzene-d5	67.9	(35 - 114%)
2-Fluorobiphenyl	68.4	(43 - 116%)
2,4,6-Tribromophenol	88.2	(10 - 123%)
p-Terphenyl-d14	58.2	(33 - 141%)

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4836; 23 Oct 98 5:19PM;Job 202;Page 9/33

Product: GRO - Gasoline Range Organics

Lab Sample ID:	L9810393-01	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	BLY-GS-S-001	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	97267L/KALAMAZOO RIVER		
Matrix:	Water	Date Collected: 10/15/98	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HP5	Method: 8015
Extract Date:	N/A	Analyst: VMN	Run ID: R54796
Analysis Date:	10/19/98 Time: 10:49	Lab File ID: 006F0101	Batch : WG47963

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
8006-61-9	Gasoline Range Organics	ug/L		ND	100	1
	SURROGATES- In Percent Recovery:					
	Chlorobenzene		88.9	(74 - 138%)		

Product: 8260 - Volatile Organics

Lab Sample ID:	L9810393-01	Dil. Type: N/A	Sample Weight: N/A
Client Sample ID:	BLY-GS-S-001	COC Info: N/A	Extract Volume: N/A
Site/Work ID:	97267L/KALAMAZOO RIVER		
Matrix:	Water	Date Collected: 10/15/98	% Solid: N/A
TCLP Extract Date:	N/A	Instrument: HPMS2	Method: 8260B
Extract Date:	N/A	Analyst: SLT	Run ID: R54758
Analysis Date:	10/20/98 Time: 18:12	Lab File ID: 2WE26957	Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L	5.3	J	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:21PM;Job 202;Page 10/33

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 18:12

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26957

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L	1.5	J	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L	0.27	J	5.0	1

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:24PM;Job 202;Page 11/33

Product: 8260 - Volatile Organics

Lab Sample ID: L9810393-01
Client Sample ID: BLY-GS-S-001
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 18:12

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26957

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1
	SURROGATES- In Percent Recovery:					
	Dibromofluoromethane		91.7	(86 - 118%)		
	1,2-Dichloroethane-d4		89.4	(80 - 120%)		
	Toluene-d8		93.3	(88 - 110%)		
	4-Bromofluorobenzene		96.0	(86 - 115%)		

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:28PM;Job 202;Page 12/33

Product: 8260 - Volatile Organics

Lab Sample ID: L9810393-02
Client Sample ID: TRIP BLANK
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 18:48

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26958

Method: 8260B
Run ID: R54758
Batch : WG48019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L	2.7	J	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:30PM;Job 202;Page 13/33

Login #L9810393
October 23, 1998 04:23 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810393-02
Client Sample ID: TRIP BLANK
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/15/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/20/98 Time: 18:48

Instrument: HPMS2
Analyst: SLT
Lab File ID: 2WE26958

Method: 8260B
Run ID: R54758
Batch : WG46019

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L	1.6	J	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L	0.25	J	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	99.0	(86 - 118%)
1,2-Dichloroethane-d4	98.5	(80 - 120%)
Toluene-d8	102	(88 - 110%)
4-Bromofluorobenzene	106	(86 - 115%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 23 Oct 98 5:33PM;Job 202;Page 14/33

KEMRON Environmental Services
109 Starlite Park
Marietta, Ohio 45750
Phone: (740) 373-4071

Roy F. Weston, Inc.
Allied Paper Inc. Operable Unit
266 E. Alcott St.
Kalamazoo, MI 49001
Attention: Mr. Hal Blakemore

PO Number:
Account Number: WESTON-472

Login #: L9810437
Report Date: 11/02/98
Work ID: 97267L/KALAMAZOO RIVER
Date Received: 10/21/98

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
L9810437-01	EXC-LG1-GS-01	L9810437-02	TRIP BLANK 2

All results on solids/sludges are reported on a dry weight basis, where applicable, unless otherwise specified. This report shall not be reproduced, except in full, without the written approval of KEMRON.

NYSDOH ELAP ID: 10861

Certified By
David L. Bumgarner

KEMRON
ENVIRONMENTAL SERVICES

Login #L9810437
November 2, 1998 03:44 pm

KEMRON ENVIRONMENTAL SERVICES

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER

Matrix: Water
Collected: 10/20/98 1400

COC Info: N/A

Analyte	Units	Result	Qualifiers	RL	Dil	Type	Analyst	Analysis Date	Time	Method
Cyanide, Total	mg/L		ND	0.01	1	N/A	SJM	10/26/98	10:30	9010B\9014
pH	S.U.	7.00			1	N/A	DLP	10/21/98	16:35	150.1
Silver, Total	mg/L		ND	0.01	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Aluminum, Total	mg/L	2.6		0.10	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Arsenic, Total	mg/L	0.016		0.004	1	N/A	RSS	10/23/98	09:59	7060A
Barium, Total	mg/L	0.44		0.01	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Beryllium, Total	mg/L		ND	0.01	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Calcium, Total	mg/L	230		0.20	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Cadmium, Total	mg/L		ND	0.01	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Cobalt, Total	mg/L		ND	0.02	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Chromium, Total	mg/L		ND	0.02	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Copper, Total	mg/L		ND	0.02	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Iron, Total	mg/L	16		0.04	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Mercury, Total	mg/L	0.00067		0.0002	1	N/A	KRA	10/23/98	12:24	7470A\7470A
Potassium, Total	mg/L	4.7		1.0	1	R-2	SLP	10/23/98	22:27	6010B\3005A
Magnesium, Total	mg/L	64		0.50	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Manganese, Total	mg/L	0.72		0.01	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Sodium, Total	mg/L	48		0.50	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Nickel, Total	mg/L		ND	0.04	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Lead, Total	mg/L	0.045		0.005	1	N/A	CRC	10/28/98	14:15	7421
Antimony, Total	mg/L		ND	0.02	1	N/A	CRC	10/28/98	08:50	7041\3020A
Selenium, Total	mg/L		ND,S	0.004	1	N/A	RSS	10/27/98	08:45	7740
Thallium, Total	mg/L		ND	0.005	1	N/A	CRC	10/28/98	09:00	7841
Vanadium, Total	mg/L		ND	0.01	1	N/A	KHA	10/26/98	11:46	6010B\3005A
Zinc, Total	mg/L	0.034		0.02	1	N/A	KHA	10/26/98	11:46	6010B\3005A

RL = Reporting Limit

Product: 808-PCB-LOW - PCB's (Water)

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

TCLP Extract Date: N/A
Extract Date: 10/26/98
Analysis Date: 10/28/98 Time: 06:38

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/20/98

Instrument: HP10
Analyst: CDB
Lab File ID: 035F0101

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8082\3510C
Run ID: R55105
Batch : WG48388

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
12674-11-2	Aroclor-1016	ug/L		ND	0.10	1
11104-28-2	Aroclor-1221	ug/L		ND	0.10	1
11141-16-5	Aroclor-1232	ug/L		ND	0.10	1
53469-21-9	Aroclor-1242	ug/L		ND	0.10	1
12672-29-6	Aroclor-1248	ug/L		ND	0.10	1
11097-69-1	Aroclor-1254	ug/L		ND	0.10	1
11096-82-5	Aroclor-1260	ug/L		ND	0.10	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		31.2	(13 - 154%)		
	Decachlorobiphenyl		59.0	(25 - 140%)		

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

TCLP Extract Date: N/A
Extract Date: 10/23/98
Analysis Date: 10/27/98 Time:

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/20/98

Instrument: HP9
Analyst: ECL
Lab File ID: 1041

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8081A\3510C
Run ID: R55151
Batch : WG48507

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
319-84-6	alpha-BHC	ug/L		ND	0.05	1
319-85-7	beta-BHC	ug/L		ND	0.05	1
319-86-8	delta-BHC	ug/L		ND	0.05	1
58-89-9	gamma-BHC (Lindane)	ug/L		ND	0.05	1
76-44-8	Heptachlor	ug/L		ND	0.05	1
309-00-2	Aldrin	ug/L		ND	0.05	1
1024-57-3	Heptachlor epoxide	ug/L		ND	0.05	1

RL = Reporting Limit

Sent By: KEMRON ON VALLEY LAB;

KEMRON ENVIRONMENTAL SERVICES

Product: 8081P - Organochlorine Pesticides

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/20/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: 10/23/98
Analysis Date: 10/27/98 Time:

Instrument: HP9
Analyst: KCL
Lab File ID: 1041

Method: 8081A\3510C
Run ID: R55151
Batch : WG48507

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
959-98-8	Endosulfan I	ug/L		ND	0.05	1
60-57-1	Dieldrin	ug/L		ND	0.10	1
72-55-9	4,4'-DDE	ug/L		ND	0.10	1
72-20-8	Endrin	ug/L		ND	0.10	1
33213-65-9	Endosulfan II	ug/L		ND	0.10	1
72-54-8	4,4'-DDD	ug/L		ND	0.10	1
1031-07-8	Endosulfan sulfate	ug/L		ND	0.10	1
50-29-3	4,4'-DDT	ug/L		ND	0.10	1
72-43-5	Methoxychlor	ug/L		ND	0.50	1
53494-70-5	Endrin ketone	ug/L		ND	0.10	1
7421-93-4	Endrin aldehyde	ug/L		ND	0.10	1
5103-71-9	alpha Chlordane	ug/L		ND	0.05	1
5103-74-2	gamma Chlordane	ug/L		ND	0.05	1
8001-35-2	Toxaphene	ug/L		ND	1.0	1
	SURROGATES- In Percent Recovery:					
	2,4,5,6-Tetrachloro-m-xylene		51.1	(13 - 154%)		
	Decachlorobiphenyl		45.9	(25 - 140%)		

RL = Reporting Limit

Sent By: KEMRON ON VALLEY LAB;

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

TCLP Extract Date: N/A
Extract Date: 10/21/98
Analysis Date: 10/25/98 Time: 20:37

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/20/98

Instrument: HPMS3
Analyst: MDC
Lab File ID: 14803

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8270C\3510C
Run ID: R54978
Batch : WG48313

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
108-95-2	Phenol	ug/L	ND		10	2
111-44-4	Bis(2-Chloroethyl)ether	ug/L	ND		10	2
95-57-8	2-Chlorophenol	ug/L	ND		10	2
541-73-1	1,3-Dichlorobenzene	ug/L	ND		10	2
106-46-7	1,4-Dichlorobenzene	ug/L	ND		10	2
100-51-6	Benzyl alcohol	ug/L	ND		10	2
95-50-1	1,2-Dichlorobenzene	ug/L	ND		10	2
95-48-7	2-Methylphenol	ug/L	ND		10	2
108-39-4	3-Methylphenol	ug/L	ND		10	2
108-60-1	bis(2-Chloroisopropyl)ether	ug/L	ND		10	2
106-44-5	4-Methylphenol	ug/L	ND		10	2
621-64-7	N-Nitroso-di-n-propylamine	ug/L	ND		10	2
67-72-1	Hexachloroethane	ug/L	ND		10	2
98-95-3	Nitrobenzene	ug/L	ND		10	2
78-59-1	Isophorone	ug/L	ND		10	2
88-75-5	2-Nitrophenol	ug/L	ND		10	2
105-67-9	2,4-Dimethylphenol	ug/L	ND		10	2
65-85-0	Benzoic acid	ug/L	ND		10	2
111-91-1	Bis(2-Chloroethoxy)Methane	ug/L	ND		50	2
120-83-2	2,4-Dichlorophenol	ug/L	ND		10	2
120-82-1	1,2,4-Trichlorobenzene	ug/L	ND		10	2
91-20-3	Naphthalene	ug/L	ND		10	2
106-47-8	4-Chloroaniline	ug/L	ND		10	2
87-68-3	Hexachlorobutadiene	ug/L	ND		10	2
59-50-7	4-Chloro-3-methylphenol	ug/L	ND		10	2
91-57-6	2-Methylnaphthalene	ug/L	ND		10	2
77-47-4	Hexachlorocyclopentadiene	ug/L	ND		10	2
88-06-2	2,4,6-Trichlorophenol	ug/L	ND		10	2
95-95-4	2,4,5-Trichlorophenol	ug/L	ND		50	2
91-58-7	2-Chloronaphthalene	ug/L	ND		10	2
88-74-4	2-Nitroaniline	ug/L	ND		50	2
131-11-3	Dimethylphthalate	ug/L	ND		10	2
208-96-8	Acenaphthylene	ug/L	ND		10	2
606-20-2	2,6-Dinitrotoluene	ug/L	ND		10	2
99-09-2	3-Nitroaniline	ug/L	ND		50	2
83-32-9	Acenaphthene	ug/L	ND		10	2
51-28-5	2,4-Dinitrophenol	ug/L	ND		50	2
100-02-7	4-Nitrophenol	ug/L	ND		50	2
132-64-9	Dibenzofuran	ug/L	ND		10	2

RL - Reporting Limit

Sent By: KEMRON ON VALLEY LAB;

KEMRON ENVIRONMENTAL SERVICES

Product: 8270 - Semivolatile Compounds

Lab Sample ID:	L9810437-01	Dil. Type:	N/A	Sample Weight:	N/A
Client Sample ID:	EXC-LG1-GS-01	COC Info:	N/A	Extract Volume:	N/A
Site/Work ID:	97267L/KALAMAZOO RIVER				
Matrix:	Water	Date Collected:	10/20/98	% Solid:	N/A
TCLP Extract Date:	N/A	Instrument:	HPMS3	Method:	8270C\3510C
Extract Date:	10/21/98	Analyst:	MDC	Run ID:	R54978
Analysis Date:	10/25/98 Time: 20:37	Lab File ID:	14803	Batch :	WG48313

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
121-14-2	2,4-Dinitrotoluene	ug/L		ND	10	2
84-66-2	Diethylphthalate	ug/L		ND	10	2
7005-72-3	4-Chlorophenyl-phenyl ether	ug/L		ND	10	2
86-73-7	Fluorene	ug/L		ND	10	2
100-01-6	4-Nitroaniline	ug/L		ND	50	2
534-52-1	4,6-Dinitro-2-methylphenol	ug/L		ND	50	2
86-30-6	N-Nitrosodiphenylamine	ug/L		ND	10	2
101-55-3	4-Bromophenyl-phenylether	ug/L		ND	10	2
118-74-1	Hexachlorobenzene	ug/L		ND	10	2
87-86-5	Pentachlorophenol	ug/L		ND	50	2
85-01-8	Phenanthrene	ug/L		ND	10	2
120-12-7	Anthracene	ug/L		ND	10	2
84-74-2	Di-N-Butylphthalate	ug/L		ND	10	2
206-44-0	Fluoranthene	ug/L		ND	10	2
129-00-0	Pyrene	ug/L		ND	10	2
85-68-7	Butylbenzylphthalate	ug/L		ND	10	2
91-94-1	3,3'-Dichlorobenzidine	ug/L		ND	20	2
56-55-3	Benzo(a)anthracene	ug/L		ND	10	2
218-01-9	Chrysene	ug/L		ND	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	ug/L		ND	10	2
117-84-0	Di-n-octylphthalate	ug/L		ND	10	2
205-99-2	Benzo(b)fluoranthene	ug/L		ND	10	2
207-08-9	Benzo(k)fluoranthene	ug/L		ND	10	2
50-32-8	Benzo(a)pyrene	ug/L		ND	10	2
193-39-5	Indeno(1,2,3-cd)pyrene	ug/L		ND	10	2
53-70-3	Dibenzo(a,h)Anthracene	ug/L		ND	10	2
191-24-2	Benzo(g,h,i)Perylene	ug/L		ND	10	2

SURROGATES- In Percent Recovery:

2-Fluorophenol	57.6		(21 - 100%)
Phenol-d5	41.4		(10 - 94%)
Nitrobenzene-d5	112		(35 - 114%)
2-Fluorobiphenyl	128	*	(43 - 116%)
2,4,6-Tribromophenol	132	*	(10 - 123%)
p-Terphenyl-d14	54.1		(33 - 141%)

RL = Reporting Limit

Sent By: KEMRON OH VALLEY LAB; 1 740 373 4835; 02 Nov 98 5:13PM;Page 6/10

Login #L9810437
November 2, 1998 03:44 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/29/98 Time: 16:53

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/20/98

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6WS11072

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

Method: 8260B
Run ID: R55331
Batch : WG48597

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L	14	J	100	1
71-43-2	Benzene	ug/L	0.14	J	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL - Reporting Limit

Product: 8260 - Volatile Organics

Lab Sample ID: L9810437-01
Client Sample ID: EXC-LG1-GS-01
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/20/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/29/98 Time: 16:53

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6WS11072

Method: 8260B
Run ID: R55331
Batch : WG48597

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L		ND	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L	0.12	J	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	90.8	(86 - 118%)
1,2-Dichloroethane-d4	98.2	(80 - 120%)
Toluene-d8	93.5	(80 - 110%)
4-Bromofluorobenzene	98.4	(86 - 115%)

RL - Reporting Limit

Sent By: KEMRON OH VALLEY LAB;

Login #L9810437
November 2, 1998 03:44 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810437-02
Client Sample ID: TRIP BLANK 2
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A
Date Collected: 10/20/98

Sample Weight: N/A
Extract Volume: N/A
% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/29/98 Time: 17:27

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6WS11073

Method: 8260B
Run ID: R55331
Batch : WG48597

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
67-64-1	Acetone	ug/L	1.2	J	100	1
71-43-2	Benzene	ug/L		ND	5.0	1
108-86-1	Bromobenzene	ug/L		ND	5.0	1
74-97-5	Bromochloromethane	ug/L		ND	5.0	1
75-27-4	Bromodichloromethane	ug/L		ND	5.0	1
75-25-2	Bromoform	ug/L		ND	5.0	1
74-83-9	Bromomethane	ug/L		ND	10	1
78-93-3	2-Butanone	ug/L		ND	100	1
104-51-8	n-Butylbenzene	ug/L		ND	5.0	1
135-98-8	sec-Butylbenzene	ug/L		ND	5.0	1
98-06-6	tert-Butylbenzene	ug/L		ND	5.0	1
75-15-0	Carbon disulfide	ug/L		ND	5.0	1
56-23-5	Carbon tetrachloride	ug/L		ND	5.0	1
108-90-7	Chlorobenzene	ug/L		ND	5.0	1
124-48-1	Chlorodibromomethane	ug/L		ND	5.0	1
75-00-3	Chloroethane	ug/L		ND	10	1
110-75-8	2-Chloroethyl vinyl ether	ug/L		ND	10	1
67-66-3	Chloroform	ug/L		ND	5.0	1
74-87-3	Chloromethane	ug/L		ND	10	1
95-49-8	2-Chlorotoluene	ug/L		ND	5.0	1
106-43-4	4-Chlorotoluene	ug/L		ND	5.0	1
96-12-8	1,2-Dibromo-3-chloropropane	ug/L		ND	5.0	1
106-93-4	1,2-Dibromoethane	ug/L		ND	5.0	1
74-95-3	Dibromomethane	ug/L		ND	5.0	1
95-50-1	1,2-Dichlorobenzene	ug/L		ND	5.0	1
541-73-1	1,3-Dichlorobenzene	ug/L		ND	5.0	1
106-46-7	1,4-Dichlorobenzene	ug/L		ND	5.0	1
75-71-8	Dichlorodifluoromethane	ug/L		ND	10	1
75-34-3	1,1-Dichloroethane	ug/L		ND	5.0	1
107-06-2	1,2-Dichloroethane	ug/L		ND	5.0	1
75-35-4	1,1-Dichloroethene	ug/L		ND	5.0	1
156-59-2	cis-1,2-Dichloroethene	ug/L		ND	5.0	1
156-60-5	trans-1,2-Dichloroethene	ug/L		ND	5.0	1
78-87-5	1,2-Dichloropropane	ug/L		ND	5.0	1
142-28-9	1,3-Dichloropropane	ug/L		ND	5.0	1
594-20-7	2,2-Dichloropropane	ug/L		ND	5.0	1
10061-01-5	cis-1,3-Dichloropropene	ug/L		ND	5.0	1
10061-02-6	trans-1,3-Dichloropropene	ug/L		ND	5.0	1
563-58-6	1,1-Dichloropropene	ug/L		ND	5.0	1

RL = Reporting Limit

Login #L9810437
November 2, 1998 03:44 pm

KEMRON ENVIRONMENTAL SERVICES

Product: 8260 - Volatile Organics

Lab Sample ID: L9810437-02
Client Sample ID: TRIP BLANK 2
Site/Work ID: 97267L/KALAMAZOO RIVER
Matrix: Water

Dil. Type: N/A
COC Info: N/A

Date Collected: 10/20/98

Sample Weight: N/A
Extract Volume: N/A

% Solid: N/A

TCLP Extract Date: N/A
Extract Date: N/A
Analysis Date: 10/29/98 Time: 17:27

Instrument: HPMS6
Analyst: CMS
Lab File ID: 6WS11073

Method: 8260B
Run ID: R55331
Batch : WG48597

CAS #	Compound	Units	Result	Qualifiers	RL	Dilution
100-41-4	Ethylbenzene	ug/L		ND	5.0	1
591-78-6	2-Hexanone	ug/L		ND	10	1
87-68-3	Hexachlorobutadiene	ug/L		ND	5.0	1
98-82-8	Isopropylbenzene	ug/L		ND	5.0	1
99-87-6	p-Isopropyltoluene	ug/L		ND	5.0	1
108-10-1	4-Methyl-2-pentanone	ug/L		ND	10	1
75-09-2	Methylene chloride	ug/L	0.12	J	5.0	1
91-20-3	Naphthalene	ug/L		ND	10	1
103-65-1	n-Propylbenzene	ug/L		ND	5.0	1
100-42-5	Styrene	ug/L		ND	5.0	1
630-20-6	1,1,1,2-Tetrachloroethane	ug/L		ND	5.0	1
79-34-5	1,1,2,2-Tetrachloroethane	ug/L		ND	5.0	1
127-18-4	Tetrachloroethene	ug/L		ND	5.0	1
108-88-3	Toluene	ug/L		ND	5.0	1
87-61-6	1,2,3-Trichlorobenzene	ug/L		ND	5.0	1
120-82-1	1,2,4-Trichlorobenzene	ug/L		ND	5.0	1
71-55-6	1,1,1-Trichloroethane	ug/L		ND	5.0	1
79-00-5	1,1,2-Trichloroethane	ug/L		ND	5.0	1
79-01-6	Trichloroethene	ug/L		ND	5.0	1
75-69-4	Trichlorofluoromethane	ug/L		ND	10	1
96-18-4	1,2,3-Trichloropropane	ug/L		ND	5.0	1
95-63-6	1,2,4-Trimethylbenzene	ug/L		ND	5.0	1
108-67-8	1,3,5-Trimethylbenzene	ug/L		ND	5.0	1
108-05-4	Vinyl acetate	ug/L		ND	10	1
75-01-4	Vinyl chloride	ug/L		ND	10	1
95-47-6	o-Xylene	ug/L		ND	5.0	1
108-38-3	m-Xylene	ug/L		ND	5.0	1
106-42-3	p-Xylene	ug/L		ND	5.0	1

SURROGATES- In Percent Recovery:

Dibromofluoromethane	94.2	(86 - 118%)
1,2-Dichloroethane-d4	99.1	(80 - 120%)
Toluene-d8	93.7	(88 - 110%)
4-Bromofluorobenzene	98.6	(86 - 115%)

RL - Reporting Limit

Sent By: KEMRON ON VALLEY LAB;

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th A
Phone: 616 3
E-mail: info@w
Internet: http:

Michigan 49424-9263
616-399-6185
com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: October 24, 1998

ANALYSIS OF: Water Samples

REPORTED BY: Robert K. Zahray (RBB)
Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 21, 1998.

Sample ID: EXCL06-GS-01 **Lab ID:** 9810267-01 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY		MDL
pH	6.8	s.u.	10/21/98	WS	0.1	0-14
Total Cyanide	15	µg/L	10/23/98	MH	0	10
Arsenic	ND	µg/L	10/24/98	JA	0	1.0
Barium	730	µg/L	10/23/98	JA	0	5
Cadmium	ND	µg/L	10/22/98	JA	0.1	0.1
Chromium	ND	µg/L	10/23/98	JA	0	5
Copper	ND	µg/L	10/23/98	JA	0	10
Lead	3.8	µg/L	10/23/98	JA	0.1	1.0
Mercury	ND	µg/L	10/23/98	MH	0.0	0.2
Metals Prep, Aqueous	10/22/98	date digested		JA		
Nickel	ND	µg/L	10/23/98	JA	0	10
Selenium	ND	µg/L	10/23/98	JA	0	1.0
Silver	ND	µg/L	10/23/98	JA	0.1	0.1
Zinc	55	µg/L	10/23/98	JA	0	10
Base/Neutrals & Acid Ext.						
bis(2-chloroethoxy)methane	ND	µg/L	10/23/98	DA		1.0
bis(2-chloroethyl)ether	ND	µg/L	10/23/98	DA		1.0
bis(2-chloroisopropyl)ether	ND	µg/L	10/23/98	DA		1.0
4-bromophenylphenyl ether	ND	µg/L	10/23/98	DA		1.0
4-chlorophenylphenyl ether	ND	µg/L	10/23/98	DA		1.0
bis(2-ethylhexyl)phthalate	ND	µg/L	10/23/98	DA		1.0
Butylbenzylphthalate	ND	µg/L	10/23/98	DA		1.0
Diethylphthalate	ND	µg/L	10/23/98	DA		1.0
Dimethylphthalate	ND	µg/L	10/23/98	DA		1.0
Di-n-butylphthalate	ND	µg/L	10/23/98	DA		1.0
Di-n-octylphthalate	ND	µg/L	10/23/98	DA		1.0
N-nitrosodimethylamine	ND	µg/L	10/23/98	DA		1.0
N-nitroso-Di-n-propylamine	ND	µg/L	10/23/98	DA		1.0
N-nitrosodiphenylamine	ND	µg/L	10/23/98	DA		1.0
1,2-diphenylhydrazine	ND	µg/L	10/23/98	DA		1.0
2-chloronaphthalene	ND	µg/L	10/23/98	DA		1.0
1,2-dichlorobenzene	ND	µg/L	10/23/98	DA		1.0
1,3-dichlorobenzene	ND	µg/L	10/23/98	DA		1.0
1,4-dichlorobenzene	ND	µg/L	10/23/98	DA		1.0
2,4-dinitrotoluene	ND	µg/L	10/23/98	DA		1.0
2,6-dinitrotoluene	ND	µg/L	10/23/98	DA		1.0
Hexachlorobenzene	ND	µg/L	10/23/98	DA		1.0
Hexachlorobutadiene	ND	µg/L	10/23/98	DA		1.0

BDL = Below Detection Limit
ND = Not Detected

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: EXCL66-GS-01 Lab ID: 9810267-01 Collected: 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Base/Neutrals & Acid Ext.					EPA 8270	
Hexachlorocyclopentadiene	ND	µg/L	10/23/98	DAH		5.0
Hexachloroethane	ND	µg/L	10/23/98	DAH		1.0
Isophorone	ND	µg/L	10/23/98	DAH		1.0
Nitrobenzene	ND	µg/L	10/23/98	DAH		1.0
1,2,4-trichlorobenzene	ND	µg/L	10/23/98	DAH		1.0
Benzidine	ND	µg/L	10/23/98	DAH		5.0
3,3'-dichlorobenzidine	ND	µg/L	10/23/98	DAH		5.0
Acenaphthene	ND	µg/L	10/23/98	DAH		1.0
Acenaphthylene	ND	µg/L	10/23/98	DAH		1.0
Anthracene	ND	µg/L	10/23/98	DAH		1.0
Benzo(a)anthracene	ND	µg/L	10/23/98	DAH		1.0
Benzo(a)pyrene	ND	µg/L	10/23/98	DAH		1.0
Benzo(b)fluoranthene	ND	µg/L	10/23/98	DAH		1.0
Benzo(g,h,i)perylene	ND	µg/L	10/23/98	DAH		1.0
Benzo(k)fluoranthene	ND	µg/L	10/23/98	DAH		1.0
Chrysene	ND	µg/L	10/23/98	DAH		1.0
Dibenzo(a,h)anthracene	ND	µg/L	10/23/98	DAH		1.0
Fluoranthene	ND	µg/L	10/23/98	DAH		1.0
Fluorene	ND	µg/L	10/23/98	DAH		1.0
Indeno(1,2,3-cd)pyrene	ND	µg/L	10/23/98	DAH		1.0
Naphthalene	ND	µg/L	10/23/98	DAH		1.0
Phenanthrene	ND	µg/L	10/23/98	DAH		1.0
Pyrene	ND	µg/L	10/23/98	DAH		1.0
Phenol	ND	µg/L	10/23/98	DAH		1.0
2-chlorophenol	ND	µg/L	10/23/98	DAH		1.0
2,4-dichlorophenol	ND	µg/L	10/23/98	DAH		1.0
2,4,6-trichlorophenol	ND	µg/L	10/23/98	DAH		1.0
Pentachlorophenol	ND	µg/L	10/23/98	DAH		5.0
4-chloro-3-methylphenol	ND	µg/L	10/23/98	DAH		1.0
2-nitrophenol	ND	µg/L	10/23/98	DAH		1.0
4-nitrophenol	ND	µg/L	10/23/98	DAH		5.0
2,4-dinitrophenol	ND	µg/L	10/23/98	DAH		5.0
4,6-dinitro-2-methylphenol	ND	µg/L	10/23/98	DAH		5.0
2,4-dimethylphenol	ND	µg/L	10/23/98	DAH		1.0
EPA Pesticides					EPA 8081	
Aldrin	ND	µg/L	10/23/98	DGK		0.01
Dieldrin	ND	µg/L	10/23/98	DGK		0.02
4,4'-DDT	ND	µg/L	10/23/98	DGK		0.02
4,4'-DDE	ND	µg/L	10/23/98	DGK		0.02
4,4'-DDD	ND	µg/L	10/23/98	DGK		0.02
alpha-Endosulfan	ND	µg/L	10/23/98	DGK		0.02
beta-Endosulfan	ND	µg/L	10/23/98	DGK		0.02
Endosulfan sulfate	ND	µg/L	10/23/98	DGK		0.02
Endrin	ND	µg/L	10/23/98	DGK		0.02
Endrin aldehyde	ND	µg/L	10/23/98	DGK		0.02
Heptachlor	0.015	µg/L	10/23/98	DGK		0.01
Heptachlor epoxide	0.042	µg/L	10/23/98	DGK		0.01
alpha-BHC	ND	µg/L	10/23/98	DGK		0.02
beta-BHC	ND	µg/L	10/23/98	DGK		0.01
delta-BHC	ND	µg/L	10/23/98	DGK		0.01
gamma-BHC	0.034	µg/L	10/23/98	DGK		0.01
Chlordane	ND	µg/L	10/23/98	DGK		1.3
Toxaphene	ND	µg/L	10/23/98	DGK		0.5
Methoxychlor	ND	µg/L	10/23/98	DGK		0.02
EPA Volatiles					EPA 8260	
Chloromethane	ND	µg/L	10/22/98	DAH		1.0
Bromomethane	ND	µg/L	10/22/98	DAH		1.0
Vinyl Chloride	ND	µg/L	10/22/98	DAH		1.0
Chloroethane	ND	µg/L	10/22/98	DAH		1.0
Chloroform	ND	µg/L	10/22/98	DAH		1.0
Bromoform	ND	µg/L	10/22/98	DAH		1.0

BDL = Below Detection Limit
ND = Not Detected

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: EXCL66-GS-01 Lab ID: 9810267-01 Collected: 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chlorodibromomethane	ND	µg/L	10/22/98	DAH		1.0
Bromodichloromethane	ND	µg/L	10/22/98	DAH		1.0
Methylene Chloride	ND	µg/L	10/22/98	DAH		5.0
1,1-dichloroethylene	ND	µg/L	10/22/98	DAH		1.0
1,1-dichloroethane	ND	µg/L	10/22/98	DAH		1.0
Carbon Tetrachloride	ND	µg/L	10/22/98	DAH		1.0
1,2-dichloropropane	ND	µg/L	10/22/98	DAH		1.0
Trichloroethylene	ND	µg/L	10/22/98	DAH		1.0
1,1,2-trichlorethane	ND	µg/L	10/22/98	DAH		1.0
Tetrachloroethylene	ND	µg/L	10/22/98	DAH		1.0
Cis-1,2-dichloroethene	ND	µg/L	10/22/98	DAH		1.0
Trans-1,2-dichloroethene	ND	µg/L	10/22/98	DAH		1.0
1,2-dichloroethane	ND	µg/L	10/22/98	DAH		1.0
1,1,1,-trichloroethane	ND	µg/L	10/22/98	DAH		1.0
Cis-1,3-dichloropropene	ND	µg/L	10/22/98	DAH		1.0
Trans-1,3-dichloropropene	ND	µg/L	10/22/98	DAH		1.0
1,1,2,2-tetrachloroethane	ND	µg/L	10/22/98	DAH		1.0
2-chloroethylvinylether	ND	µg/L	10/22/98	DAH		1.0
Chlorobenzene	ND	µg/L	10/22/98	DAH		1.0
Benzene	ND	µg/L	10/22/98	DAH		1.0
Toluene	ND	µg/L	10/22/98	DAH		1.0
Ethyl Benzene	ND	µg/L	10/22/98	DAH		1.0
Acrolein	ND	µg/L	10/22/98	DAH		30
Acrylonitrile	ND	µg/L	10/22/98	DAH		10
Liq/Liq Ext PCBs & Pests	10/23/98	prep. date		HL	EPA 3510	
Liq/Liq Ext. for BNA	10/22/98	prep. date		WJC	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/23/98	DGK		0.1
PCB-1221	ND	µg/L	10/23/98	DGK		0.1
PCB-1232	ND	µg/L	10/23/98	DGK		0.1
PCB-1242	1.9	µg/L	10/23/98	DGK		0.1
PCB-1248	ND	µg/L	10/23/98	DGK		0.1
PCB-1254	ND	µg/L	10/23/98	DGK		0.46
PCB-1260	ND	µg/L	10/23/98	DGK		0.24
Total PCBs	1.9	µg/L	10/23/98	DGK		1.0

Sample ID: Trip Blank Lab ID: 9810267-02 Collected: 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
Chloromethane	ND	µg/L	10/22/98	DAH		1.0
Bromomethane	ND	µg/L	10/22/98	DAH		1.0
Vinyl Chloride	ND	µg/L	10/22/98	DAH		1.0
Chloroethane	ND	µg/L	10/22/98	DAH		1.0
Chloroform	ND	µg/L	10/22/98	DAH		1.0
Bromoform	ND	µg/L	10/22/98	DAH		1.0
Chlorodibromomethane	ND	µg/L	10/22/98	DAH		1.0
Bromodichloromethane	ND	µg/L	10/22/98	DAH		1.0
Methylene Chloride	ND	µg/L	10/22/98	DAH		5.0
1,1-dichloroethylene	ND	µg/L	10/22/98	DAH		1.0
1,1-dichloroethane	ND	µg/L	10/22/98	DAH		1.0
Carbon Tetrachloride	ND	µg/L	10/22/98	DAH		1.0
1,2-dichloropropane	ND	µg/L	10/22/98	DAH		1.0
Trichloroethylene	ND	µg/L	10/22/98	DAH		1.0
1,1,2-trichlorethane	ND	µg/L	10/22/98	DAH		1.0
Tetrachloroethylene	ND	µg/L	10/22/98	DAH		1.0
Cis-1,2-dichloroethene	ND	µg/L	10/22/98	DAH		1.0
Trans-1,2-dichloroethene	ND	µg/L	10/22/98	DAH		1.0

BDL = Below Detection Limit
ND = Not Detected

Printed on Recycled Paper

WESTERN MICHIGAN ENVIRONMENTAL SERVICES, INC.

Sample ID: Trip Blank Lab ID: 9810267-02 Collected: 10/21/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
EPA Volatiles					EPA 8260	
1,2-dichloroethane	ND	µg/L	10/22/98	DAH		1.0
1,1,1,-trichloroethane	ND	µg/L	10/22/98	DAH		1.0
Cis-1,3-dichloropropene	ND	µg/L	10/22/98	DAH		1.0
Trans-1,3-dichloropropene	ND	µg/L	10/22/98	DAH		1.0
1,1,2,2-tetrachloroethane	ND	µg/L	10/22/98	DAH		1.0
2-chloroethylvinylether	ND	µg/L	10/22/98	DAH		1.0
Chlorobenzene	ND	µg/L	10/22/98	DAH		1.0
Benzene	ND	µg/L	10/22/98	DAH		1.0
Toluene	ND	µg/L	10/22/98	DAH		1.0
Ethyl Benzene	ND	µg/L	10/22/98	DAH		1.0
Acrolein	ND	µg/L	10/22/98	DAH		30
Acrylonitrile	ND	µg/L	10/22/98	DAH		10

BDL = Below Detection Limit
ND = Not Detected

Printed on Recycled Paper

WESTERN MICHIGAN
ENVIRONMENTAL SERVICES, INC.
Analytical Laboratory and Testing Services

3352 128th Avenue, Holland, Michigan 49424-9263
Phone: 616-399-6070 FAX: 616-399-6185
E-mail: info@wmesi.com
Internet: http://www.wmesi.com

CLIENT: Roy F. Weston, Inc
266 E. Alcott
Kalamazoo, MI 49001

Attn: Hal Blakemore
Re: Kalamazoo River Superfund

DATE: October 28, 1998

ANALYSIS OF: Water Sample

REPORTED BY: Robert K. Zahray, Laboratory Manager

DATE RECEIVED: Received from client on October 23, 1998.

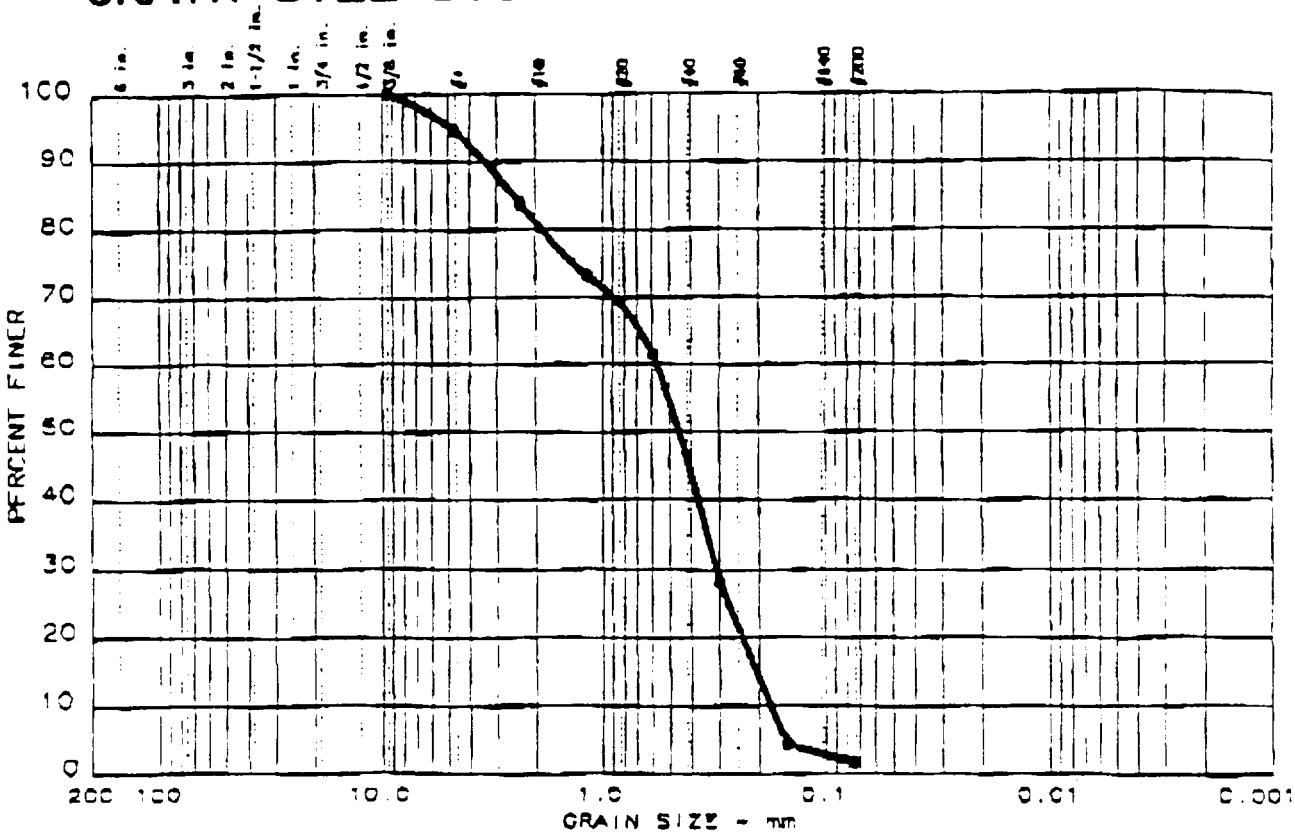
Sample ID: RS-CF-003 Lab ID: 9810297-01 Collected: 10/23/98

TEST	RESULT	UNITS	ANALYZED	BY	METHOD	MDL
Liq/Liq Ext. for PCBs	10/27/98	prep. date		HL	EPA 3510	
Polychlorinated Biphenyls					EPA 8082	
PCB-1016	ND	µg/L	10/27/98	DGK		0.11
PCB-1221	ND	µg/L	10/27/98	DGK		0.11
PCB-1232	ND	µg/L	10/27/98	DGK		0.11
PCB-1242	ND	µg/L	10/27/98	DGK		0.11
PCB-1248	ND	µg/L	10/27/98	DGK		0.11
PCB-1254	ND	µg/L	10/27/98	DGK		0.21
PCB-1260	ND	µg/L	10/27/98	DGK		0.11
Total PCBs	ND	µg/L	10/27/98	DGK		1.2

RINSATE

BDL = Below Detection Limit
ND = Not Detected

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	5.4	93.0	1.6	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			2.51	0.573	0.452	0.311	0.205	0.177	0.96	3.2

MATERIAL DESCRIPTION	USCS	AASHTO
● Fine to Medium Sand-Trace/Some Gravel-Trace Silt-Brown	SP	

Project No. KE33717
Project: Kalamazoo River Superfund
● Location: 2NS-SP-GED

Date: 9/2/99

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

soil and materials engineers, inc.

Fig. No.: ——

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 1
REPORT DATE: 09/01/99
LOG NO: 304
DATE SAMPLED: 08/31/99

2NS -SP-GR2

Material - 2NS					
Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	29.0	4.3	95.7	95 - 100	
8	51.6	7.7	88.0	65 - 95	
16	51.0	7.6	80.4	35 - 75	Maximum Exceeded
30	77.1	11.5	68.9	20 - 55	Maximum Exceeded
50	258.9	38.5	30.4	10 - 30	Maximum Exceeded
100	181.9	27.1	3.3	0 - 10	
200	12.6	1.9	1.4		<5
Pan	9.5	1.4			

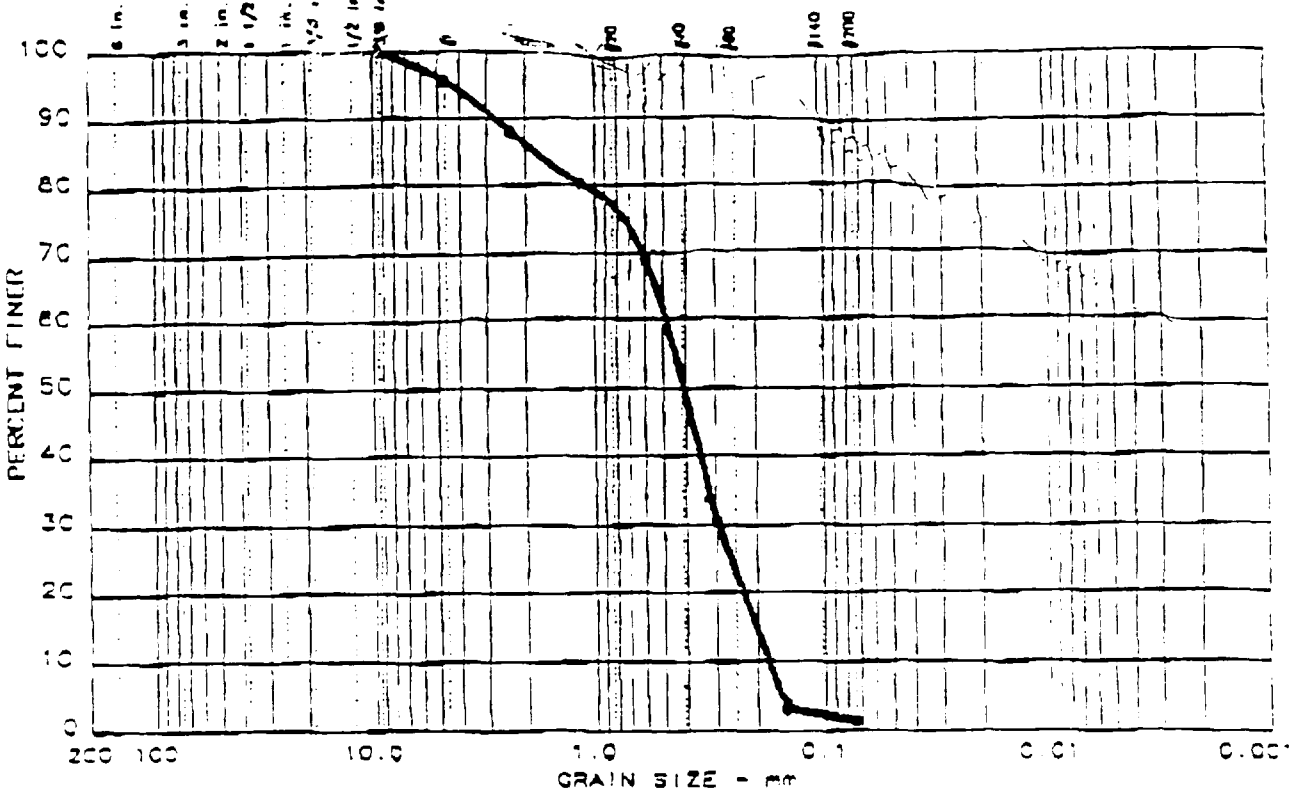
Weight Of Sample:	671.6	
Weight After Wash:	664.1	
Loss By Washing %	1.1	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 7934

REVIEWED BY: MICHAEL S. MEDDOCK

GRAIN SIZE DISTRIBUTION TEST REPORT



	% -3"	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	4.3	94.3	1.4	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			1.82	0.488	0.409	0.296	0.202	0.178	1.01	2.7

	MATERIAL DESCRIPTION	USCS	AASHTO
●	Fine to Medium Sand-Trace Silt & Gravel-Brown	SP	

Project No.: KE33717
Project: Kalamazoo River Superfund
● Location: 2NS-SP-GR2

Date: 9/2/99

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT
soil and materials engineers, inc.

Fig. No.:

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 2
REPORT DATE: 09/01/99
LOG NO: 305
DATE SAMPLED: 08/31/99

2NS - SP - GR3

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	39.3	5.9	94.1	95 - 100	Minimum Not Met
8	48.9	7.3	86.8	65 - 95	
16	55.1	8.2	78.6	35 - 75	Maximum Exceeded
30	80.0	12.0	66.6	20 - 55	Maximum Exceeded
50	243.8	36.4	30.2	10 - 30	Maximum Exceeded
100	167.4	25.0	5.2	0 - 10	
200	23.8	3.6	1.7		
Pan	10.9	1.6			

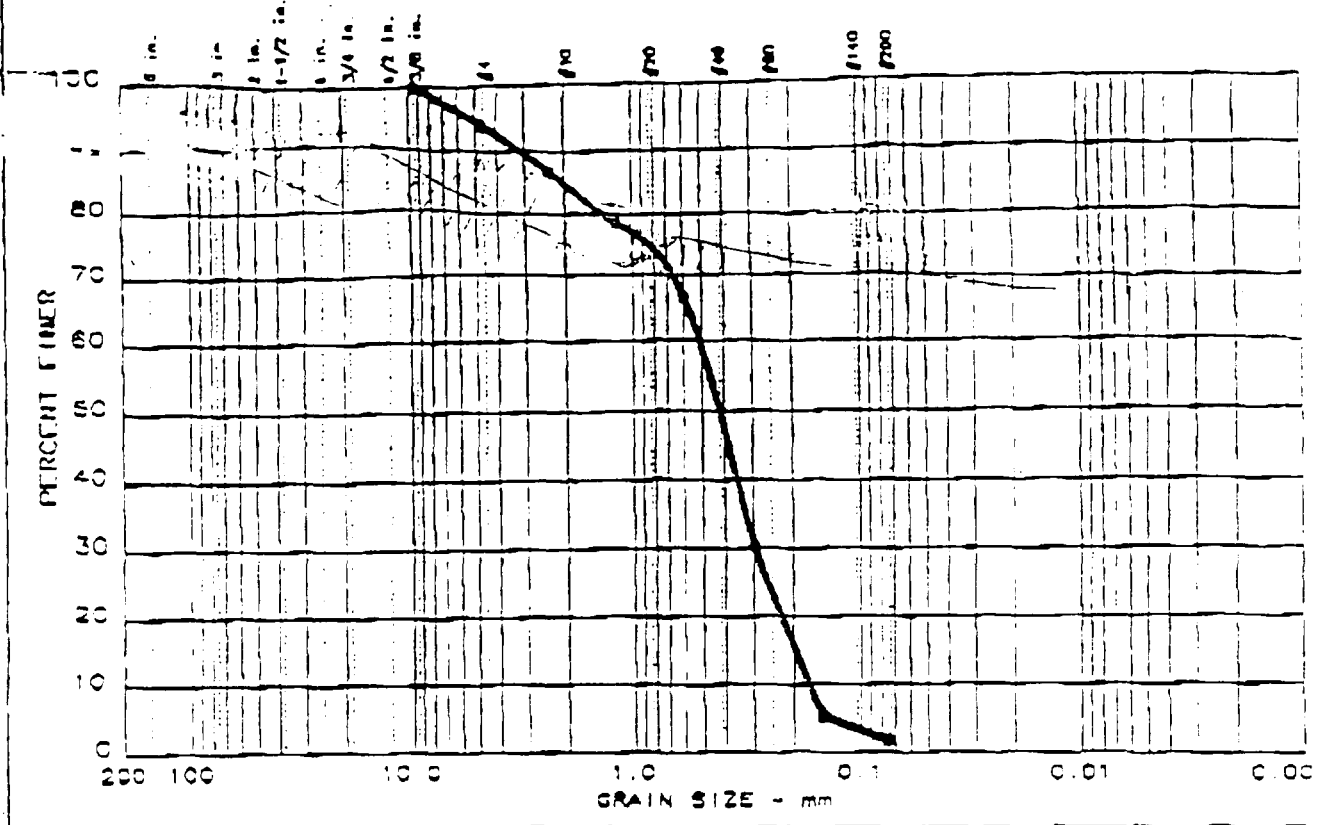
Weight Of Sample:	669.4	
Weight After Wash:	660.5	
Loss By Washing %	1.3	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 7936

REVIEWED BY: MICHAEL S. MEDDOCK

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	5.9	92.5	1.6	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			2.02	0.507	0.419	0.298	0.197	0.171	1.02	3.0

MATERIAL DESCRIPTION	USCS	AASHTO
● Fine to Medium Sand-Tr/Sc Gravel-Tr Silt-Brown	SP	

Project No.: KE33717
Project: Kalamazoo River Superfund
● Location: 2NS-SP-GR3

Date: 9/2/99

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

soil and materials engineers, inc.

Fig. No. ____

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 3
REPORT DATE: 09/01/99
LOG NO: 307
DATE SAMPLED: 08/31/99

2NS - SP- GR4

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	1.3	0.2	99.8	100	Minimum Not Met
4	36.8	5.5	94.3	95 - 100	Minimum Not Met
8	47.5	7.1	87.1	65 - 95	
16	53.0	8.0	79.1	35 - 75	Maximum Exceeded
30	81.1	12.2	66.9	20 - 55	Maximum Exceeded
50	259.8	39.1	27.8	10 - 30	
100	156.9	23.6	4.2	0 - 10	
200	20.7	3.1	1.1		
Pan	7.1	1.1			

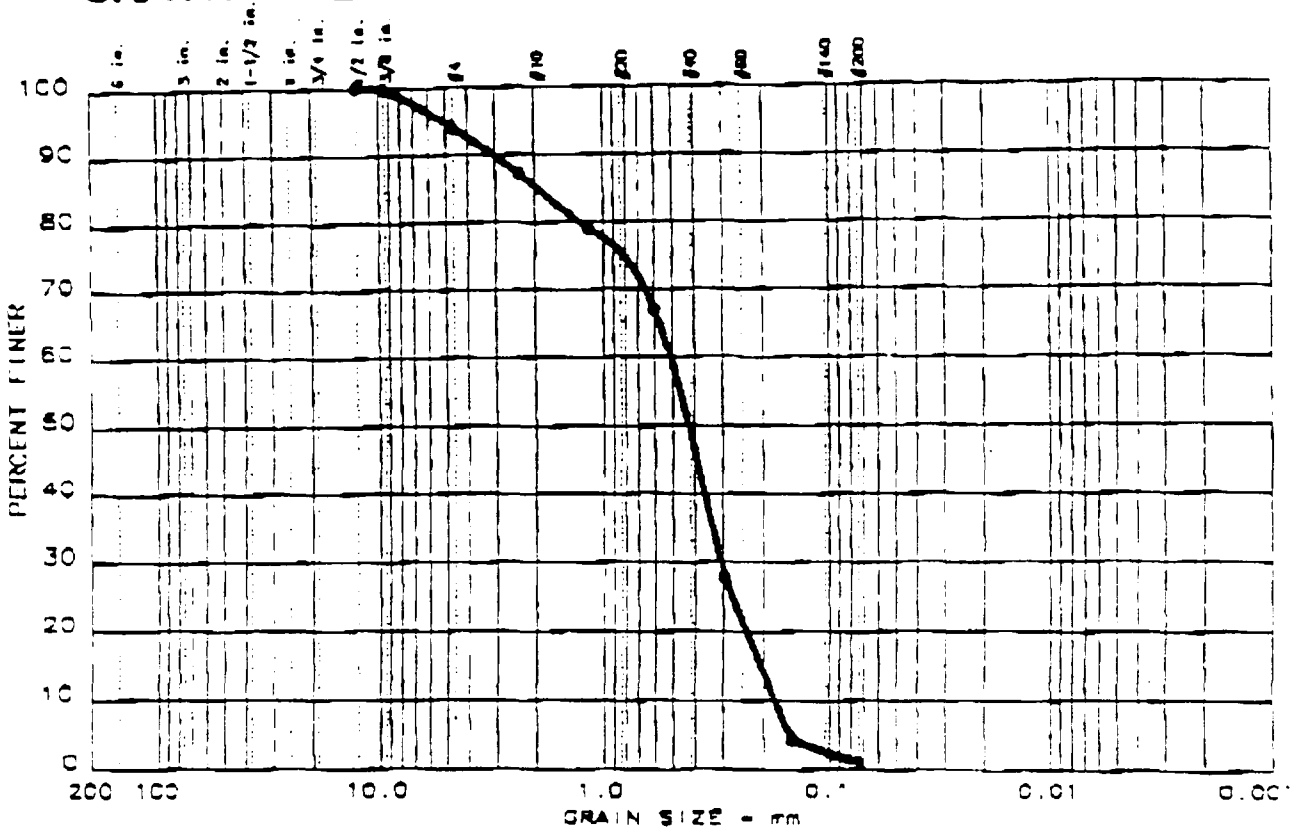
Weight Of Sample:	664.4	
Weight After Wash:	658.9	
Loss By Washing %	0.8	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 7937

REVIEWED BY: MICHAEL S. MEDDOCK

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	5.7	93.2	1.1	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			1.97	0.507	0.425	0.310	0.205	0.178	1.07	2.9

	MATERIAL DESCRIPTION	USCS	AASHTO
●	Fine to Medium Sand-Tr/So Gravel-Tr Silt-Brown	SP	

Project No.: KE33717
Project: Kalamazoo River Superfund
● Location: 2NS-SP-GR4

Date: 8/2/99

GRAIN SIZE DISTRIBUTION TEST REPORT

soil and materials engineers, inc.

Remarks:

Fig. No. _____

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: KALAMAZOO, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 4
REPORT DATE: 09/01/99
LOG NO: 306
DATE SAMPLED: 08/31/99

2NS - SP - GR5

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	41.6	6.2	93.8	95 - 100	Minimum Not Met
8	57.7	8.6	85.2	65 - 95	
16	58.4	8.7	76.5	35 - 75	Maximum Exceeded
30	86.0	12.8	63.7	20 - 55	Maximum Exceeded
50	246.6	36.7	27.0	10 - 30	
100	152.8	22.7	4.3	0 - 10	
200	20.1	3.0	1.3		
Pan	9.1	1.4			

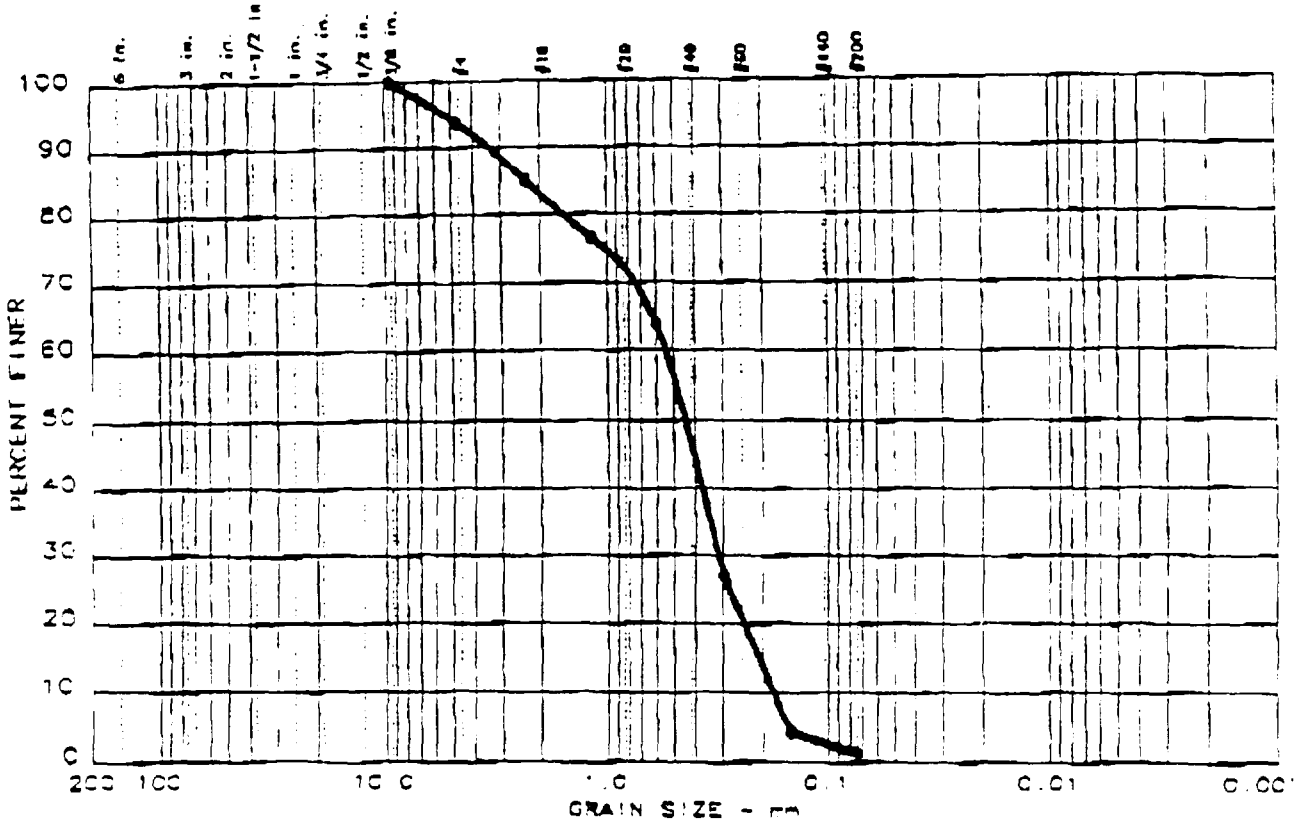
Weight Of Sample:	671.7	
Weight After Wash:	664.2	
Loss By Washing %	1.1	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 7938

REVIEWED BY: MICHAEL S. MEDDOCK

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	6.2	92.5	1.3	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			0.632	0.543	0.443	0.316	0.208	0.179	1.03	3.0

	MATERIAL DESCRIPTION	USCS	AASHTO
●	Fine to Medium Sand-Trace Gravel-Trace Silt-Brown	SP	

Project No.: KE33717
Project: Kalamazoo River Superfund
● Location: 2NS-SP-GR5

Date: 9/2/99

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

soil and materials engineers, inc.

Fig. No.: ———

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: KALAMAZOO, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 9
REPORT DATE: 09/13/99
LOG NO: 326
DATE SAMPLED: 09/08/99

2NS-SP-GR6

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	2.0	0.3	99.7	100	Minimum Not Met
4	61.0	9.0	90.7	95 - 100	Minimum Not Met
8	65.0	9.6	81.1	65 - 95	
16	65.0	9.6	71.5	35 - 75	
30	80.0	11.8	59.7	20 - 55	Maximum Exceeded
50	238.0	35.2	24.5	10 - 30	
100	137.0	20.2	4.3	0 - 10	
200	18.0	2.7	1.6		
Pan	11.0	1.6			

Weight Of Sample:	677	
Weight After Wash:	667	
Loss By Washing %	1.5	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8057

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: KALAMAZOO, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 8
REPORT DATE: 09/13/99
LOG NO: 328
DATE SAMPLED: 09/08/99

2NS-SP-GR7

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	3.0	0.5	99.5	100	Minimum Not Met
4	43.0	6.7	92.9	95 - 100	Minimum Not Met
8	65.0	10.1	82.8	65 - 95	
16	59.0	9.1	73.6	35 - 75	
30	75.0	11.6	62.0	20 - 55	Maximum Exceeded
50	234.0	36.3	25.7	10 - 30	
100	142.0	22.0	3.7	0 - 10	
200	18.0	2.8	0.9		
Pan	6.0	0.9			

Weight Of Sample:	645	
Weight After Wash:	640	
Loss By Washing %	0.8	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
REVIEWED BY: MICHAEL S. MEDDOCK

ls - 8056

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: KALAMAZOO, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 7
REPORT DATE: 09/13/99
LOG NO: 327
DATE SAMPLED: 09/08/99

2NS-SP-GR8

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	2.0	0.3	99.7	100	Minimum Not Met
4	27.0	4.0	95.8	95 - 100	
8	52.0	7.6	88.1	65 - 95	
16	56.0	8.2	79.9	35 - 75	Maximum Exceeded
30	87.0	12.7	67.2	20 - 55	Maximum Exceeded
50	263.0	38.5	28.7	10 - 30	
100	163.0	23.9	4.8	0 - 10	
200	22.0	3.2	1.6		
Pan	11.0	1.6			

Weight Of Sample:	683	
Weight After Wash:	673	
Loss By Washing %	1.5	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8055

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: KALAMAZOO, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 6
REPORT DATE: 09/10/99
LOG NO: 325
DATE SAMPLED: 09/08/99

2NS-SP-GR9

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	30.2	4.7	95.3	95 - 100	
8	61.3	9.5	85.9	65 - 95	
16	54.5	8.4	77.4	35 - 75	Maximum Exceeded
30	81.4	12.6	64.8	20 - 55	Maximum Exceeded
50	245.7	38.0	26.9	10 - 30	
100	143.4	22.2	4.7	0 - 10	
200	18.6	2.9	1.8		
Pan	11.7	1.8			

Weight Of Sample:	646.8	
Weight After Wash:	638	
Loss By Washing %	1.4	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8052

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: KALAMAZOO, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 5
REPORT DATE: 09/10/99
LOG NO: 324
DATE SAMPLED: 09/08/99

2NS-SP-GR10

Material - 2NS					
Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	1.7	0.2	99.8	100	Minimum Not Met
4	38.3	4.4	95.4	95 - 100	
8	78.4	9.0	86.4	65 - 95	
16	73.7	8.5	77.9	35 - 75	Maximum Exceeded
30	107.9	12.4	65.4	20 - 55	Maximum Exceeded
50	336.0	38.7	26.7	10 - 30	
100	189.9	21.9	4.8	0 - 10	
200	23.2	2.7	2.1		
Pan	17.6	2.0			

Weight Of Sample:	867.7	
Weight After Wash:	854	
Loss By Washing %	1.6	0 - 3

Remarks:

SUBMITTED BY: SARAH VAN DELFZIJL
REVIEWED BY: MICHAEL S. MEDDOCK

ls - 8051

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 10
REPORT DATE: 09/13/99
LOG NO: 332
DATE SAMPLED: 09/13/99

2NS-SP-GR11

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	41.0	6.5	93.5	95 - 100	Minimum Not Met
8	63.0	10.0	83.5	65 - 95	
16	62.0	9.8	73.7	35 - 75	
30	97.0	15.4	58.3	20 - 55	Maximum Exceeded
50	237.0	37.6	20.6	10 - 30	
100	108.0	17.1	3.5	0 - 10	
200	13.0	2.1	1.4		
Pan	9.0	1.4			

Weight Of Sample:	630	
Weight After Wash:	622	
Loss By Washing %	1.3	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8082

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 11
REPORT DATE: 09/13/99
LOG NO: 336
DATE SAMPLED: 09/13/99

2NS-SP-GR12

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	36.0	5.4	94.6	95 - 100	Minimum Not Met
8	64.0	9.7	84.9	65 - 95	
16	61.0	9.2	75.7	35 - 75	Maximum Exceeded
30	78.0	11.8	63.9	20 - 55	Maximum Exceeded
50	247.0	37.3	26.6	10 - 30	
100	147.0	22.2	4.4	0 - 10	
200	18.0	2.7	1.7		
Pan	11.0	1.7			

Weight Of Sample:	662	
Weight After Wash:	653	
Loss By Washing %	1.4	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8083

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 13
REPORT DATE: 09/13/99
LOG NO: 335
DATE SAMPLED: 09/13/99

2NS-SP-GR13

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	3.0	0.5	99.5	100	Minimum Not Met
4	47.0	7.3	92.2	95 - 100	Minimum Not Met
8	53.0	8.2	84.0	65 - 95	
16	56.0	8.7	75.3	35 - 75	Maximum Exceeded
30	73.0	11.4	63.9	20 - 55	Maximum Exceeded
50	223.0	34.7	29.2	10 - 30	
100	160.0	24.9	4.4	0 - 10	
200	19.0	3.0	1.4		
Pan	9.0	1.4			

Weight Of Sample:	643	
Weight After Wash:	636	
Loss By Washing %	1.1	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8086

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 14
REPORT DATE: 09/13/99
LOG NO: 334
DATE SAMPLED: 09/13/99

2NS-SP-GR14

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	7.0	1.1	98.9	100	Minimum Not Met
4	45.0	6.9	92.0	95 - 100	Minimum Not Met
8	58.0	8.9	83.2	65 - 95	
16	53.0	8.1	75.1	35 - 75	Maximum Exceeded
30	71.0	10.9	64.2	20 - 55	Maximum Exceeded
50	242.0	37.0	27.2	10 - 30	
100	148.0	22.6	4.6	0 - 10	
200	18.0	2.8	1.8		
Pan	12.0	1.8			

Weight Of Sample:	654		
Weight After Wash:	644		
Loss By Washing %	1.5	0 - 3	

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8087

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 12
REPORT DATE: 09/13/99
LOG NO: 333
DATE SAMPLED: 09/13/99

2NS-SP-GR15

Material - 2NS

Sieve Size	Weight Retained - gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	37.0	6.2	93.8	95 - 100	Minimum Not Met
8	58.0	9.7	84.1	65 - 95	
16	58.0	9.7	74.4	35 - 75	
30	76.0	12.7	61.7	20 - 55	Maximum Exceeded
50	211.0	35.3	26.4	10 - 30	
100	131.0	21.9	4.5	0 - 10	
200	17.0	2.8	1.7		
Pan	10.0	1.7			

Weight Of Sample:	598	
Weight After Wash:	589	
Loss By Washing %	1.5	0 - 3

Remarks:

SUBMITTED BY: RICHARD L. STADICK
ls - 8085

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 16
REPORT DATE: 09/17/99
LOG NO: 353
DATE SAMPLED: 09/16/99

2NS-SP-GR16

Material - 2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	1.5	0.2	99.8	100	Minimum Not Met
4	27.4	4.2	95.6	95 - 100	
8	40.5	6.1	89.5	65 - 95	
16	46.0	7.0	82.5	35 - 75	Maximum Exceeded
30	73.5	11.2	71.3	20 - 55	Maximum Exceeded
50	248.2	37.7	33.7	10 - 30	Maximum Exceeded
100	189.7	28.8	4.9	0 - 10	
200	26.5	4.0	0.8		
Pan	5.5	0.8			

Weight Of Sample:	658.8	
Weight After Wash:	654.4	
Loss By Washing %	0.7	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 8157

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 17
REPORT DATE: 09/17/99
LOG NO: 354
DATE SAMPLED: 09/16/99

2NS-SP-GR17

Material -2NS

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2	0.0	0.0	100.0		
3/8	4.2	0.6	99.4	100	Minimum Not Met
4	43.7	6.5	92.9	95 - 100	Minimum Not Met
8	55.7	8.3	84.6	65 - 95	
16	60.5	9.0	75.6	35 - 75	Maximum Exceeded
30	84.6	12.6	63.0	20 - 55	Maximum Exceeded
50	242.2	36.1	26.9	10 - 30	
100	153.8	22.9	4.0	0 - 10	
200	19.1	2.8	1.1		
Pan	7.5	1.1			

Weight Of Sample:	671.3	
Weight After Wash:	664.7	
Loss By Washing %	1.0	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 8158

REVIEWED BY: MICHAEL S. MEDDOCK

Analysis of Aggregate Report

PROJECT: Kalamazoo River Superfund
LOCATION: Kalamazoo, MI
CONTRACTOR: R.F. Weston Co.
SUPPLIER: Sams Pit

SME JOB NO: KE33717
REPORT NO: 15
REPORT DATE: 09/17/99
LOG NO: 355
DATE SAMPLED: 09/16/99

2NS-SP-GR18

Material - 2NS					
Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	0.0	0.0	100.0	100	
4	42.4	6.3	93.7	95 - 100	Minimum Not Met
8	48.0	7.1	86.6	65 - 95	
16	56.1	8.3	78.2	35 - 75	Maximum Exceeded
30	83.9	12.5	65.7	20 - 55	Maximum Exceeded
50	246.8	36.7	29.0	10 - 30	
100	162.6	24.2	4.8	0 - 10	
200	24.6	3.7	1.2		
Pan	8.0	1.2			

Weight Of Sample:	672.4	
Weight After Wash:	665.7	
Loss By Washing %	1.0	0 - 3

Remarks:

SUBMITTED BY: ALICIA TORRES
ls - 8153

REVIEWED BY: MICHAEL S. MEDDOCK

GEOTECHNICAL TEST RESULTS (VENTING LAYER)

Permeability

Sample I.D. #	Sample Type	Sample Date	Permeability (cm/sec)
2NS-SP-GEO	Venting Layer - Permeability	8/23/99	$3.79 * 10^{-2}$
2NS-SP-PM2	Venting Layer - Permeability	9/9/99	$4.51 * 10^{-2}$
2NS-SP-PM3	Venting Layer - Permeability	9/9/99	$4.87 * 10^{-2}$
2NS-SP-PM4	Venting Layer - Permeability	9/16/99	$2.78 * 10^{-2}$

Post-it® Fax Note 7671	Date 8/27/99	# of pages ▶ 2
To Nick L	From Dre	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

Permeability Test on Granular Soil

Project: Kalamazoo River Superfund
Location: Kalamazoo, Mich.
Sample No. 2NS-SP-GEO
Date Sampled 8/23/99

Report Date 8/26/99
Report No.
SME Job No. KE33717

Material Source: Sams Pit

Wt. of Sample,g: 7251.60
Ht. of Sample,in: 9.00
Area, sq. in: 28.27
Time, sec 60.00
Diameter,in: 6.00

Coefficient of Permeability:
$3.79 * 10^{-3}$ cm/sec
3.79×10^{-2}
Wet Density (pcf): 108.6
Dry Density (pcf): 104.4

manometer		Head	Volume	Flow	Hydraulic
Right,cm	Left,cm	(cm)	(ml)	(ml/sec)	Gradient
9.0	21.0	12.0	327.0	5.5	0.8
9.0	21.0	12.0	327.0	5.5	0.8
9.0	21.0	12.0	327.0	5.5	0.8
9.0	21.0	12.0	327.0	5.5	0.8
		0.0		0.0	0.0
		0.0		0.0	0.0

Sample was tested in accordance to ASTM D 2434.

Permeability Test on Granular Soil

Project:	Kalamazoo River Superfund	Report Date	9/15/99
Location:	Kalamazoo, Mich.	Report No.	
Sample No.	2NS-SP-PM2	SME Job No.	KE33717
Date Sampled	9/8/99		

Material Description: Fine to medium Sand - Trace Silt & Gravel - Brown

Wt. of Sample,g:	7169.10	Coefficient of Permeability:	
Ht. of Sample,in:	9.00	$4.51 * 10^{-2}$ cm/sec	
Area, sq. in	28.27		
Time, sec	60.00	Wet Density (pcf):	107.3
Diameter,in:	6.00	Dry Density (pcf):	102.7

manometer		Head	Volume	Flow	Hydraulic
Right,cm	Left,cm	(cm)	(ml)	(ml/sec)	Gradient
4.5	15.0	10.5	340.0	5.7	0.7
4.5	15.0	10.5	340.0	5.7	0.7
4.5	15.0	10.5	340.0	5.7	0.7
		0.0		0.0	0.0
		0.0		0.0	0.0
		0.0		0.0	0.0

Sample was tested in accordance to ASTM D 2434.

Permeability Test on Granular Soil

Project:	Kalamazoo River Superfund	Report Date	9/15/99
Location.	Kalamazoo, Mich.	Report No.	
Sample No.	2NS-SP-PM3	SME Job No.	KE33717
Date Sampled	9/8/99		

Material Description Fine to medium Sand-Trace Silt & Gravel-Brown

Wt. of Sample,g:	7475.40
Ht. of Sample,in:	9.25
Area, sq. In:	28.27
Time, sec	60.00
Diameter,in:	6.00

Coefficient of Permeability:
$4.87 * 10^{-2}$ cm/sec

Wet Density (pcf): 108.9
Dry Density (pcf): 104.2

manometer		Head	Volume	Flow	Hydraulic
Right,cm	Left cm	(cm)	(ml)	(ml/sec)	Gradient
2.0	8.0	6.0	210.0	3.5	0.4
2.0	8.0	6.0	210.0	3.5	0.4
2.0	8.0	6.0	210.0	3.5	0.4
2.0	8.0	6.0		0.0	0.4
		0.0		0.0	0.0
		0.0		0.0	0.0

Sample was tested in accordance to ASTM D 2434.

Permeability Test on Granular Soil

Project:	Kalamazoo River Superfund	Report Date	9/21/99
Location:	Kalamazoo, Mich.	Report No.	
Sample No.	2NS–SP–PM4	SME Job No.	KE33717
Date Sampled	9/16/99		

Material Description: Fine to medium Sand–Trace Silt & Gravel–Brown

Wt. of Sample,g:	7354.70	Coefficient of Permeability:	
Ht. of Sample,in:	9.25	$2.78 * 10^{-2}$ cm/sec	
Area, sq. in:	28.27		
Time, sec	60.00	Wet Density (pcf):	107.1
Diameter,in:	6.00	Dry Density (pcf)	102.2

manometer		Head	Volume	Flow	Hydraulic
Right,cm	Left,cm	(cm)	(ml)	(ml/sec)	Gradient
5.5	17.5	12.0	240.0	4.0	0.8
5.5	17.5	12.0	240.0	4.0	0.8
5.5	17.5	12.0	240.0	4.0	0.8
		0.0		0.0	0.0
		0.0		0.0	0.0
		0.0		0.0	0.0

Sample was tested in accordance to ASTM D 2434.

APPENDIX L2

GEOTECHNICAL TEST RESULTS
(LAGOON BACKFILL)

GEOTECHNICAL TEST RESULTS (LAGOON BACKFILL)

Grain Size

Sample I.D. #	Sample Type	Sample Date	% Passing #200 Sieve	% Passing 1/2" Sieve
BF-SP-CS-01	Lagoon Backfill - Grain Size	8/10/99	2.4	100

Analysis of Aggregate Report

PROJECT: Kalamazoo River Super Fund
LOCATION: Kalamazoo, Mi.
CONTRACTOR: R.F. Weston
SUPPLIER: Sample # BF-SP-CS-01

SME JOB NO: KE33717
REPORT NO: 1
REPORT DATE: 08/06/99
LOG NO: 213
DATE SAMPLED: 08/05/99

Sieve Size	Weight Retained gm	Percent Retained	Percent Passing	Spec Percent Passing	Comments
3		0.0	100.0		
2		0.0	100.0		
1 1/2		0.0	100.0		
1		0.0	100.0		
3/4		0.0	100.0		
1/2		0.0	100.0		
3/8	7.2	1.3	98.7		
4	40.0	7.2	91.5		
8	70.5	12.6	78.9		
16	67.4	12.1	66.8		
30	72.5	13.0	53.8		
50	173.2	31.0	22.8		
100	101.9	18.3	4.5		
200	11.6	2.1	2.4		
Pan	13.6	2.4			

Weight Of Sample:	557.9
Weight After Wash:	546.8
Loss By Washing %	2.0

Remarks:

SUBMITTED BY: GOPA NEIR
un - 14435

REVIEWED BY:

GRAIN SIZE DISTRIBUTION TEST DATA Test No.: 15

Date: 8/8/99
Project No.: KE-33717
Project: Kalamazoo River Super Fund

Sample Data

Location of Sample: Sample #BF-SP-CS-01
Sample Description: Fi/Med Sa-Tr/So Co Sa & Gr-Tr Si-Br
USCS Class: SP Liquid limit:
AASHTO Class: A-1-b Plasticity index:

Notes

Remarks:

Fig. No.:

Mechanical Analysis Data

	Initial	After wash
Dry sample and tare=	557.90	546.80
Tare =	0.00	0.00
Dry sample weight =	557.90	546.80

Minus #200 from wash= 2.0 %
Sieve tare method

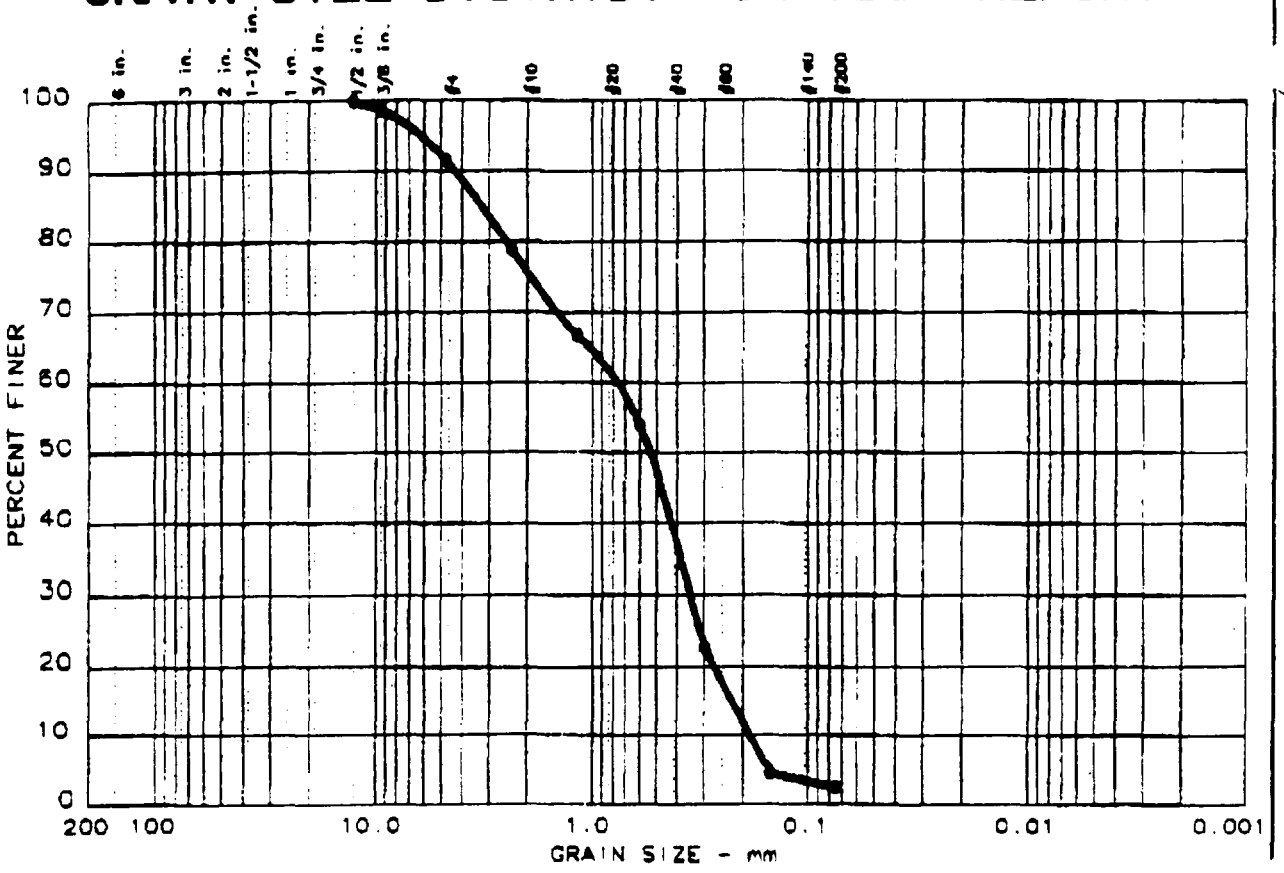
Sieve	Weight retained	Sieve tare	Percent finer
0.5 inches	0.00	0.00	100.0
0.375 inches	7.20	0.00	98.7
# 4	40.00	0.00	91.5
# 8	70.50	0.00	78.9
# 16	67.40	0.00	66.8
# 30	72.50	0.00	53.8
# 50	173.20	0.00	22.8
# 100	101.90	0.00	4.5
# 200	11.60	0.00	2.4

Fractional Components

Gravel/Sand based on #4 sieve
Sand/Fines based on #200 sieve
% + 3 in. = 0.0 % GRAVEL = 8.5 % SAND = 89.1
% FINES = 2.4

D85= 3.24 D60= 0.750 D50= 0.534
D30= 0.3471 D15= 0.22310 D10= 0.18344
Cc = 0.8760 Cu = 4.0879

GRAIN SIZE DISTRIBUTION TEST REPORT



	% +3"	% GRAVEL	% SAND	% SILT	% CLAY
●	0.0	8.5	89.1	2.4	

	LL	PI	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
●			3.24	0.750	0.534	0.347	0.223	0.183	0.88	4.1

MATERIAL DESCRIPTION	USCS	AASHTO
● Fi/Med Sa-Tr/So Co Sa & Cr-Tr Si-Br	SP	A-1-b

Project No.: KE-33717
Project: Kalamazoo River Super Fund
● Location: Sample #BF-SP-CS-01

Date: 8/8/99

Remarks:

GRAIN SIZE DISTRIBUTION TEST REPORT

soil and materials engineers, inc.

Fig. No.: _____

GEOTECHNICAL TEST RESULTS (LAGOON BACKFILL)

Permeability

Sample I.D. #	Sample Type	Sample Date	Permeability (cm/sec)
BF-SP-CS-01	Lagoon Backfill - Permeability	8/10/99	$3.48 * 10^{-2}$

Permeability Test on Granular Soil (ASTM D2434)

Project: Kalamazoo River Superfund
Location: Kalamazoo, Michigan
Sample No.: Sams Pit

SME Project No.: KE33717
Report Date: 8/9/99
Date Sampled: 8/5/99

Material Description: BF-SP-CS-01

Weight of Sample, g: 7496.80
Height of Sample, in: 9.00
Area, sq. in: 28.27
Time, sec: 60.00
Diameter, in: 6.00

Coefficient of Permeability: $3.48 * 10^{-2}$ cm/sec

Wet Density (pcf): 112.2
Dry Density (pcf): 105.9

Manometer		Head	Volume	Flow	Hydraulic
Right (cm)	Left (cm)	(cm)	(ml)	(ml/sec)	Gradient
12.0	23.0	11.0	275.0	4.6	0.7
12.0	23.0	11.0	275.0	4.6	0.7
12.0	23.0	11.0	275.0	4.6	0.7
12.0	23.0	11.0	275.0	4.6	0.7

Reported and Reviewed By: Gary Docking

APPENDIX M

LABORATORY DATA REVIEW PACKAGES

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-W-6**

Sampling Date(s)	10/21, 10/23, 10/28, 10/29, 11/04, 11/09, 11/10/98
Data Package Received On	8/3/99
Data Package Reviewed On	8/13/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	***All sample data rejected. Detection limits are substantially above the required detection limit.***

Batch # 98-PC-W-7

Sampling Date(s)	11/11, 11/13, 11/17, 11/18, 11/19, 12/01, 12/03, 12/10, 12/14/98
Data Package Received On	8/3/99
Data Package Reviewed On	8/13/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	***All sample data rejected. Detection limits are substantially above the required detection limit.***

Batch # 98-PC-W-9

Sampling Date(s)	12/19/98
Data Package Received On	8/3/99
Data Package Reviewed On	8/13/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	***All sample data rejected. Detection limits are substantially above the required detection limit.***

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-W-5**

Sampling Date(s)	10/21, 10/23, 10/28, 10/29, 11/04, 11/09, 11/10/98
Data Package Received On	8/3/99
Data Package Reviewed On	8/13/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	***All sample data rejected. Detection limits are substantially above the required detection limit.***

Batch # 98-PE-W-5

Sampling Date(s)	10/21/98
Data Package Received On	10/13/99
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs, pesticides, pH, cyanide, SVOCs, VOCs, metals
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	With the exception of PCB sample results, all other sample results are acceptable for the intended use. With respect to PCBs, the detection limits of Aroclor-1248 and Aroclor-1254 are substantially above the accepted limit of 0.1 ug/l, therefore, all PCB results were rejected.

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-11**

Sampling Date(s)(s)	10/21, 10/22, 10/23/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-12

Sampling Date(s)(s)	10/24, 10/28, 10/29/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	0-6^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-13

Sampling Date(s)	10/26, 10/28, 10/29, 10/3, 11/2, 11/3/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	0-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-15**

Sampling Date(s)	10/30, 11/7, 11/9, 11/11, 11/14, 11/16/98
Data Package Received On	3/8/99
Data Package Reviewed On	3/17/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-16

Sampling Date(s)	11/6, 11/17-11/20/98
Data Package Received On	3/8/99
Data Package Reviewed On	3/17/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-5^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-17

Sampling Date(s)	11/12, 11/20, 11/21, 11,23, 11/25, 12/2, 12/3/98
Data Package Received On	3/8/99
Data Package Reviewed On	3/17/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-18**

Sampling Date(s)	11/13, 11/20, 11/24, 12/01, 12/05/98
Data Package Received On	3/18/99
Data Package Reviewed On	4/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-5^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-20

Sampling Date(s)	12/4, 12/7, 12/8, 12/9, 12/14, 12/16/98
Data Package Received On	3/18/99
Data Package Reviewed On	4/7/99
Chain-of-Custody Form	Completed
Analysis	VOCs, metals (RCRA+Cu, Ni, Zn)
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-21

Sampling Date(s)	12/10, 12/11, 12/12/98
Data Package Received On	3/18/99
Data Package Reviewed On	4/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-22**

Sampling Date(s)	12/1, 12/12, 12/16/98
Data Package Received On	3/18/99
Data Package Reviewed On	4/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-23

Sampling Date(s)	12/15, 12/16, 12/17/98
Data Package Received On	3/18/99
Data Package Reviewed On	4/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	0-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-25

Sampling Date(s)	12/19, 12/21/98
Data Package Received On	3/18/99
Data Package Reviewed On	4/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-26**

Sampling Date(s)	12/22, 12/23, 12/28, 12/29/98
Data Package Received On	5/31/99
Data Package Reviewed On	6/10/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	0-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PC-S-27

Sampling Date(s)	12/19, 12/30/98
Data Package Received On	5/31/99
Data Package Reviewed On	6/11/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-1

Sampling Date(s)	12/31/98, 1/6/99, 1/7/99, 1/8/99
Data Package Received On	5/31/99
Data Package Reviewed On	6/11/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-2**

Sampling Date(s)	1/7/99, 1/12/99, 1/19/99, 1/20/99
Data Package Received On	5/31/99
Data Package Reviewed On	6/11/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	0-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-5

Sampling Date(s)	1/26/99, 1/27/99, 1/19/99, 1/30/99
Data Package Received On	6/24/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-6

Sampling Date(s)	1/27/99, 1/29/99, 2/5/99, 2/11/99, 2/12,99, 2/13/99, 2/17/99
Data Package Received On	6/24/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-7**

Sampling Date(s)	1/27/99, 2/1/99, 2/3/99, 2/4/99, 2/6/99
Data Package Received On	6/24/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-9

Sampling Date(s)	2/13/99, 2/15/99, 2/16/99, 2/17/99, 2/18/99, 2/20/99,
Data Package Received On	7/16/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-11

Sampling Date(s)	2/23/99, 2/24/99
Data Package Received On	7/16/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-12**

Sampling Date(s)	2/25/99, 2/26/99, 2/27/99,
Data Package Received On	7/16/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-13

Sampling Date(s)	3/1/99, 3/2/99, 3/3/99
Data Package Received On	7/20/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-14

Sampling Date(s)	3/4/99, 3/11/99, 3/12/99
Data Package Received On	7/20/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-2^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-16**

Sampling Date(s)	3/13/99, 3/17/99, 3/18/99, 4/5/99
Data Package Received On	7/20/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-17

Sampling Date(s)	3/15/99, 3/16/99
Data Package Received On	7/26/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-18

Sampling Date(s)	3/22/99, 3/23/99, 3/30/99, 4/1/99,
Data Package Received On	7/26/99
Data Package Reviewed On	7/28/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-19**

Sampling Date(s)	3/24/99, 3/25/99, 3/29/99
Data Package Received On	7/27/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-20

Sampling Date(s)	3/31/99, 4/6/99, 4/7/99, 4/14/99
Data Package Received On	7/27/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-21

Sampling Date(s)	4/1/99
Data Package Received On	8/5/99
Data Package Reviewed On	8/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-22**

Sampling Date(s)	4/8/99, 4/12/99, 4/13/99
Data Package Received On	8/5/99
Data Package Reviewed On	8/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-24

Sampling Date(s)	4/19/99, 4/21/99, 4/26/99, 4/27/99, 5/6/99
Data Package Received On	8/5/99
Data Package Reviewed On	8/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	2-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-25

Sampling Date(s)	4/20/99, 4/29/99, 5/5/99
Data Package Received On	8/5/99
Data Package Reviewed On	8/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-26**

Sampling Date(s)	4/30/99, 5/1/99, 5/3/99
Data Package Received On	8/5/99
Data Package Reviewed On	8/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3-4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 99-PC-S-31

Sampling Date(s)	8/2/99, 8/23/99, 8/29/99
Data Package Received On	10/13/99
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs, pesticides, SVOCs, metals, cyanide
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Batch # 98-PE-S-2

Sampling Date(s)	10/30/98
Data Package Received On	10/13/99
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs, pesticides, SVOCs, metals
Matrix	Soil/Sediment
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PE-S-5**

Sampling Date(s)	8/2/99, 8/23/99
Data Package Received On	10/13/99
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs, pesticides, SVOCs, metals, cyanide
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-14**

Review Item		Comments
Sampling Date(s)		10/27/98, 11/04/98, 11/05/98
Data Package Received On		3/8/99
Data Reviewd On		3/17/99
Chain-Of-Custody Form		Completed. Two of the four shipments did not contain custody seals on cooler on sample containers.
Cooler Temperature		1-6^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits
	RPD	Within limits
Surrogare Recoveries		The surrogate recoveries for three samples were not within control limits, matrix interference is believed to be responsible. Due to 24-hour constraint of the project re-preparation of the samples was not possible. All other samples in this lot met the QC requirements for the method..
Comments		Thirteen of the twenty samples in the group had very high moisture content as evidenced by total solids of less than 50%. These samples required addition of anhydrous sodium sulfate at levels in excess of those recommended in the method to accomplish the ultrasonic extraction. The required detection limit for total PCBs of 1000 mg/kg dry weight basis was achieved for all samples with the exception of one sample. The total PCB detection limit for this sample was elevated due to very high water content of the sample.
Data Acceptability		Procedures stated above are acceptable in those circumstances. The quality of data are not impacted by these procedures. All samples in this batch met QC requirements. Data are acceptable for the intended use.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: WESTERN MICHIGAN **Batch # 98-PC-S-24**

Review Item		Comments
Sampling Date(s)		12/17/98, 12/18/98, 12/19/98
Data Package Received On		3/18/99
Data Reviewd On		4/7/99
Chain-Of-Custody Form		Completed.
Cooler Temperature		3^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits
	RPD	Within limits
Surrogare Recoveries		Within limits
Comments		Seven of the twenty samples in the group had very high moisture content as evidenced by total solids of less than 50%. These samples required addition of anhydrous sodium sulfate at levels in excess of those recommended in the method to accomplish the ultrasonic extraction. The required detection limit for total PCBs of 1000 mg/kg dry weight basis was achieved for all samples with the exception of one sample. The total PCB detection limit for this sample was elevated due to very high water content of the sample.
Data Acceptability		Procedures stated above are acceptable procedures followed in those circumstances. The quality of data are not impacted by these procedures. All samples in this batch met QC requirements. Data are acceptable for the intended use.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-4**

Review Item		Comments
Sampling Date(s)		1/15/99, 1/20/99, 1/21/99
Data Package Received On		5/31/99
Data Reviewd On		6/11/99
Chain-Of-Custody Form		Completed.
Cooler Temperature		2^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits
	RPD	Within limits
Surrogare Recoveries		Within limits
Comments		Three of the fifteen samples in the group had very high moisture content as evidenced by total solids of less than 50%. These samples required addition of anhydrous sodium sulfate at levels in excess of those recommended in the method to accomplish the ultrasonic extraction.
Data Acceptability		The procedure stated above is acceptable under those circumstances. The quality of data are not impacted by these procedures. All samples in this batch met QC requirements. Data are acceptable for the intended use.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-10**

Review Item		Comments
Sampling Date(s)		2/19/99, 2/20/99, 2/22/99, 2/23/99
Data Package Received On		8/30/99
Data Reviewd On		9/9/99
Chain-Of-Custody Form		Completed.
Cooler Temperature		1-3^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits
	RPD	Within limits
Surrogare Recoveries		Within limits
Comments		Six of twenty samples in the group had very high moisture content as evidenced by total solids of less than 50%. These samples required addition of anhydrous sodium sulfate at levels in excess of those recommended in the method to accomplish the ultrasonic extraction.
Data Acceptability		The procedure stated above is acceptable under those circumstances. The quality of data are not impacted by these procedures. All samples in this batch met QC requirements. Data are acceptable for the intended use.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-15**

Review Item		Comments
Sampling Date(s)		3/5/99, 3/8/99, 3/10/99, 3/12/99
Data Package Received On		7/26/99
Data Reviewd On		7/28/99
Chain-Of-Custody Form		Completed.
Cooler Temperature		2^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits
	RPD	Within limits
Surrogare Recoveries		Within limits
Comments		One of the eighteen samples in the group had very high moisture content as evidenced by total solids of less than 50%. These samples required addition of anhydrous sodium sulfate at levels in excess of those recommended in the method to accomplish the ultrasonic extraction.
Data Acceptability		The procedure stated above is acceptable under those circumstances. The quality of data are not impacted by these procedures. All samples in this batch met QC requirements. Data are acceptable for the intended use.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: WESTERN MICHIGAN **Batch # 99-PC-S-27**

Review Item	Comments
Sampling Date(s)	5/7/99

Data Package Received On		7/26/99
Data Reviewd On		7/28/99
Chain-Of-Custody Form		Completed.
Cooler Temperature		4^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits
	RPD	Within limits
Surrogare Recoveries		Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended use.

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810019**

Sampling Date(s)	09/29/98 - 09/30/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil, water
Holding Time	Extraction and analysis times within limits
Sample temperature	9^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810086

Sampling Date(s)	9/30/98 - 10/2/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	10^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810105

Sampling Date(s)	10/3/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	5^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810106**

Sampling Date(s)	10/3/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	5^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810156

Sampling Date(s)	10/6/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	8^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810176

Sampling Date(s)	10/7/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810177**

Sampling Date(s)	10/7/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810236

Sampling Date(s)	10/8/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	VOCs, metals (RCRA+Cu, Ni, Zn)
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810257

Sampling Date(s)	10/9/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810303**

Sampling Date(s)	10/12/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810305

Sampling Date(s)	10/12/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810307

Sampling Date(s)	10/12/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810337**

Sampling Date(s)	10/14/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810364

Sampling Date(s)	10/15/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810365

Sampling Date(s)	10/15/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810366**

Sampling Date(s)	10/15/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	TAL Metals, VOCs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810390

Sampling Date(s)	10/16/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810391

Sampling Date(s)	10/16/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810392**

Sampling Date(s)	10/15/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810393

Sampling Date(s)	10/15/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	VOCs, metals
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	1^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810415

Sampling Date(s)	10/19/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KEMRON **Project # L9810417**

Sampling Date(s)	10/17/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	3^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810436

Sampling Date(s)	10/20/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Soil
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Project # L9810437

Sampling Date(s)	10/10/98
Data Package Received On	12/98
Data Package Reviewed On	1/12/99
Chain-of-Custody Form	Completed
Analysis	VOCs, metals
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	4^0 C
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KEMRON **Batch # L9810085**

Review Item		Comments
Sampling Date(s)		9/30/98 - 10/2/98
Data Package Received On		12/98
Data Reviewd On		1/12/99
Chain-Of-Custody Form		Completed
Cooler Temperature		10^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Recoveries for Aroclor 1016, and 1260 were outside limits.
	RPD	RPD for Aroclor 1016 was outside advisory limits.
LCS	Recovery	Within limits
Surrogare Recoveries		Within limits
Comments		The reason for MS/MSDs being outside the limits may be due to the high PCB concentration in the sample compared to the MS/MSD spiking concentrations. Surrogate and LCS recoveries for all the samples are within the limits. The deviations of only MS/MSDs do not impact the quality of the data. Higher cooler temperature was due to insufficient time between sampling time and sample arrival at the lab. This has no impact on PCB concentrations.
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KEMRON **Batch # L9810228**

Review Item		Comments
Sampling Date(s)		10/8/98
Data Package Received On		12/98
Data Reviewd On		1/12/99
Chain-Of-Custody Form		Completed
Cooler Temperature		3^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits.
	RPD	Within limits.
LCS	Recovery	Within limits
Surrogare Recoveries		Within limits
Comments		All samples in this delivery group were analyzed at dilutions
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KEMRON **Batch # L9810416**

Review Item		Comments
Sampling Date(s)		10/17/98
Data Package Received On		12/98
Data Reviewd On		1/12/99
Chain-Of-Custody Form		Completed
Cooler Temperature		3^0 C
Holding Time		Extraction and analysis within limits.
Matrix		Soil
Analysis		PCBs
Method Blank		Acceptable
MS/MSD	Recovery	Within limits.
	RPD	Within limits.
LCS	Recovery	Within limits
Surrogare Recoveries		Within limits
Comments		Sample fraction 01 required dilutional analysis
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 985392**

Sampling Date(s)	12/16/98
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 985544

Sampling Date(s)	12/29/98
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990264

Sampling Date(s)	1/20/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990368**

Sampling Date(s)	1/28/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990381

Sampling Date(s)	1/28/99 - 1/29/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990432

Sampling Date(s)	2/1/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990481**

Sampling Date(s)	2/3/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990581

Sampling Date(s)	2/11/98
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990620

Sampling Date(s)	2/15/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990623**

Sampling Date(s)	2/10/99 - 2/11/1999
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990630

Sampling Date(s)	2/16/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990696

Sampling Date(s)	2/18/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990717**

Sampling Date(s)	2/22/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990807

Sampling Date(s)	2/24/99 - 2/25/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990862

Sampling Date(s)	10/15/98
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990910**

Sampling Date(s)	3/3/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 990990

Sampling Date(s)	3/8/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991067

Sampling Date(s)	3/2/99
Data Package Received On	3/30/99
Data Package Reviewed On	4/6/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991127**

Sampling Date(s)	3/16/99
Data Package Received On	4/28/99
Data Package Reviewed On	4/30/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991128

Sampling Date(s)	3/16/99
Data Package Received On	4/28/99
Data Package Reviewed On	4/30/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991202

Sampling Date(s)	3/22/99
Data Package Received On	4/28/99
Data Package Reviewed On	4/30/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991240**

Sampling Date(s)	3/24/99
Data Package Received On	4/28/99
Data Package Reviewed On	5/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991285

Sampling Date(s)	3/26/99
Data Package Received On	4/28/99
Data Package Reviewed On	5/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991394

Sampling Date(s)	3/31/99
Data Package Received On	4/28/99
Data Package Reviewed On	5/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991474**

Sampling Date(s)	4/6/99
Data Package Received On	4/28/99
Data Package Reviewed On	5/12/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991598

Sampling Date(s)	4/12/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991599

Sampling Date(s)	4/12/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991685**

Sampling Date(s)	4/15/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991700

Sampling Date(s)	4/16/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991720

Sampling Date(s)	4/12/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991745**

Sampling Date(s)	4/20/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991747

Sampling Date(s)	4/20/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991753

Sampling Date(s)	4/20/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991839**

Sampling Date(s)	4/23/99
Data Package Received On	5/12/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991866

Sampling Date(s)	4/26/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991893

Sampling Date(s)	4/27/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991961**

Sampling Date(s)	4/29/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991963

Sampling Date(s)	4/30/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/25/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 991986

Sampling Date(s)	5/3/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991988**

Sampling Date(s)	5/3/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992045

Sampling Date(s)	5/5/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992083

Sampling Date(s)	5/5/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992130**

Sampling Date(s)	5/6/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992132

Sampling Date(s)	5/7/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992162

Sampling Date(s)	5/10/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992178**

Sampling Date(s)	5/11/99
Data Package Received On	5/19/99
Data Package Reviewed On	5/26/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992248

Sampling Date(s)	5/14/99
Data Package Received On	6/2/99
Data Package Reviewed On	6/10/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992274

Sampling Date(s)	5/17/99
Data Package Received On	6/2/99
Data Package Reviewed On	6/10/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992345**

Sampling Date(s)	5/19/99
Data Package Received On	6/2/99
Data Package Reviewed On	6/10/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992388

Sampling Date(s)	5/21/99
Data Package Received On	6/2/99
Data Package Reviewed On	6/10/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992405

Sampling Date(s)	5/24/99
Data Package Received On	6/16/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992458**

Sampling Date(s)	5/26/99
Data Package Received On	6/16/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992464

Sampling Date(s)	5/27/99
Data Package Received On	6/16/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992486

Sampling Date(s)	5/28/99
Data Package Received On	6/16/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992515**

Sampling Date(s)	6/2/99
Data Package Received On	6/23/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992699

Sampling Date(s)	6/9/99
Data Package Received On	6/23/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 992820

Sampling Date(s)	6/15/99
Data Package Received On	6/23/99
Data Package Reviewed On	7/12/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992988**

Sampling Date(s)	6/23/99
Data Package Received On	7/12/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 993064

Sampling Date(s)	6/28/99
Data Package Received On	7/12/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 993143

Sampling Date(s)	7/2/99
Data Package Received On	7/16/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	PCBs, TSS
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 993289**

Sampling Date(s)	7/13/99
Data Package Received On	7/24/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	BTEX, TPH, metals, cyanide, PCBs, pH
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 993364

Sampling Date(s)	7/15/99
Data Package Received On	7/24/99
Data Package Reviewed On	7/30/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 993490

Sampling Date(s)	7/22/99
Data Package Received On	8/24/99
Data Package Reviewed On	9/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 993573**

Sampling Date(s)	7/27/99
Data Package Received On	8/24/99
Data Package Reviewed On	9/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 993676

Sampling Date(s)	7/30/99
Data Package Received On	8/24/99
Data Package Reviewed On	9/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 993792

Sampling Date(s)	8/5/99
Data Package Received On	8/24/99
Data Package Reviewed On	9/7/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 993935**

Sampling Date(s)	8/12/99
Data Package Received On	8/30/99
Data Package Reviewed On	9/9/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 994025

Sampling Date(s)	8/17/99
Data Package Received On	10/12/99
Data Package Reviewed On	10/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 994204

Sampling Date(s)	8/26/99
Data Package Received On	10/12/99
Data Package Reviewed On	10/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Cursory Data Review

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 994257**

Sampling Date(s)	8/30/99
Data Package Received On	10/12/99
Data Package Reviewed On	10/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

KAR Project No: 994322

Sampling Date(s)	9/2/99
Data Package Received On	10/12/99
Data Package Reviewed On	10/12/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Water
Holding Time	Extraction and analysis times within limits
Sample temperature	Within limits
Data Acceptability	Data are acceptable for the intended purpose

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990331**

Review Item		Comments
Sampling Date(s)		1/22/99
Data Package Received On		3/30/99
Data Reviewd On		4/7/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		PCBs
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 990989**

Review Item		Comments
Sampling Date(s)		3/8/99
Data Package Received On		3/30/99
Data Reviewd On		4/7/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		BTEX, TPH, metals, cyanide, PCBs, pH
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991310**

Review Item		Comments
Sampling Date(s)		3/29/99
Data Package Received On		4/28/99
Data Reviewd On		4/30/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		PCBs, BTEX, TPH, Metals, C .
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 991783**

Review Item		Comments
Sampling Date(s)		4/22/99
Data Package Received On		5/12/99
Data Reviewd On		5/25/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		PCBs
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992170**

Review Item		Comments
Sampling Date(s)		5/10/99
Data Package Received On		5/19/99
Data Reviewd On		5/26/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		BTEX, TPH, metals, cyanide, PCBs, pH
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 992609**

Review Item		Comments
Sampling Date(s)		6/4/99
Data Package Received On		6/23/99
Data Reviewd On		7/12/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		PCBs
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 993098**

Review Item		Comments
Sampling Date(s)		6/29/99
Data Package Received On		7/12/99
Data Reviewd On		7/30/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		PCBs, TSS
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Kalamazoo River Superfund Project

Data Review Summary

Analytical Laboratory: KAR Laboratories, Inc. **KAR Project No: 994322**

Review Item		Comments
Sampling Date(s)		9/1/99
Data Package Received On		10/12/99
Data Reviewd On		10/12/99
Chain-Of-Custody Form		Completed
Cooler Temperature		Within limits
Holding Time		Extraction and analysis within limits.
Matrix		Water
Analysis		PCBs, TSS
Method Blank		Acceptable
Surrogate Recoveries		Within limits
MS/MSD	Recovery	Within limits
	RPD	Within limits
Comments		None
Data Acceptability		Data are acceptable for the intended purpose.

Roy F. Weston, Inc.
1400 Weston Way
P.O. Box 2653
West Chester, PA 19380
610-701-7400 • Fax 610-701-7401

27 October 1999

RE: Review of Ambient Air Monitoring Results for
The Kalamazoo River Superfund Site.

This report presents the results for the review of the perimeter (ambient) and personal air monitoring performed at the Kalamazoo River Superfund Site. Both perimeter and personal air samples were collected for Polychlorinated Biphenyl's (PCBs) and Lead (personal only) during remedial activities. The following table outlines the types of samples that were collected on or between the identified dates:

Sample Date	Ambient	Personal	PCB	Lead
23 September - 05 November 1998	√		√	
01-03 October 1998		√	√	
07-09 October 1998		√		√
22-24 February 1999	√		√	
19-29 July 1999	√	√	√	

Analytical data, as provided from the laboratory and specified by a Work Order # and field data was reviewed to ensure the following criteria were satisfied:

- Holding Time,
- Data Acceptability
- Air Volume Concentrations

The results of the review indicate, that all calculated sample concentrations for perimeter and personal monitoring of PCB's were below the identified action levels of 0.5 ug/m^3 (perimeter) and 0.25 mg/m^3 (personal). In addition, all personal sample concentrations calculated for lead were below the action level of 0.03mg/m^3.

Appendix A provides a summary explaining in further detail the findings of the review.

Appendix A

Summary Review of the

Kalamazoo Ambient Air Monitoring Program

23 September 1998

Sample # 092398-B3-1 was recorded on the C.O.C. as being submitted to the laboratory for analysis. However, 092398-B3-1 does not appear on the field data sheet or in the analytical results.

WESTON's sample technician was contacted by the laboratory regarding C.O.C. mistake. WESTON informed the laboratory that sample 092398-B3-1 should be corrected to read 092398-B5-1.

03-05 November 1998

Samples with I.D. designation PE, PW an PN appear on the field data sheets and summary table (sample calculation spreadsheet) of sample concentrations. However, they are not recorded on the C.O.C. and no analytical data is provided.

WESTON technician explained the ambient air sampling plan called for the collection and laboratory submittal of only downwind and residential samples for analysis. PE, PW and PN samples were collected but not sent for analysis.

22-24 February 1999

Data sheets were not provided with the corresponding analytical data packages.

WESTON technician stated that data sheets were misplaced for the identified sampling dates and could not be found. Therefore, the data review for the time period is incomplete.

19-29 July 1999

On each day of sampling a total of five perimeter samples were collected. However, only two samples were submitted to the laboratory for analysis.

WESTON technician explained the ambient air sampling plan called for the collection and laboratory submittal of only downwind and residential samples for analysis. Samples other than the downwind and residential were collected but not sent to the laboratory for analysis.

In addition to the analytical data, a review of PUF sampler calibrations and seasonal data was performed to ensure sample concentrations were re-calculated correctly. The following paragraphs outline the findings of the review:

- An error was recorded for one of the six calibration points during initial calibration of sampler #1, on 22 September 1998. For a dial gauge reading of

20 the field technician recorded a manometer reading of 5.3 inches of H_2O. This data point is askew from what is expected for that dial gauge reading.

An audit of the PUF sampler to determine the accuracy of flow measurements is performed using the same procedure as a calibration, but with a different orifice to ensure that the multipoint calibration was performed correctly. The audit value recorded for the same dial gauge reading was 2.2 inches of H2O. The flow rates, which are derived from each of the six points along with additional information, are compared to determine a percent error. The percent error for this point was 42.4%. If the audit indicates the flow rate of the PUF sampler deviates by more than 7% from the calibration, re-calibration of the sampler should be performed.

As a result of the increased flow rate for sampler #1 re-calculated concentrations are increased by approximately 0.2 ng/m^3.

- An error was recorded in the spreadsheet from 10/10/98-11/05/98 and 2/22-24 1999 when identifying the sampler used to collect each sample.

By incorrectly entering in the wrong sampler # into the spreadsheet concentrations are miscalculated. Each sampler has a unique slope and intercept that used derive the flow rate for the sampler. The flow rate is then used to calculate the volume which in turn is used in the final concentration calculation.

As a result of this error, concentrations calculated for 10/10/98-11/05/98 and 2/22-24 1999 show an average decrease .3 ng/m^3.

Kalamazoo River Superfund Project

Cursory Data Review
Analytical Laboratory: Air Toxics LTD **Work Order #: 9809345**

Sample Date	9/23/98
Sampling ID's (092398)	B1-1, B2-1, B5-1, B4-1, B6-1, TB-1
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Sample # 092398-B5-1 was recorded as # 092398-B3-1 on C.O.C . This conclusion was made since #092398-B5-1does not appear on the field data sheet and no analytical data is provided. There were no other out of the ordinary circumstances identified.
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9809354**

Sample Date	9/24/98
Sampling ID's (092498)	B1-2, B2-2, B4-2, B5-2, B6-2
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810064**

Sample Date	10/1/98
Sampling ID's (100198)	PN-1, PS-1, PE-1, PW-1, PR-1, TB-1
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

Kalamazoo River Superfund Project

Cursory Data Review

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810082**

Sample Date	10/2/98
Sampling ID's (100298)	PE-2, PW-2, PS-2, PN-2, PR-2
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810089**

Sample Date	10/3/98
Sampling ID's (100398)	PE-3, PW-3, PS-3, PN-3, PR-3
Data Package Reviewed On	10/18/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810113**

Sample Date	10/5/98
Sampling ID's (100598)	PE-4, PW-4, PS-4, PN-4, PR-4, TB-2
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

Kalamazoo River Superfund Project

Cursory Data Review

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810145**

Sample Date	10/06/98, 10/07/98
Sampling ID's (100698/100798)	PE-5, PW-5, PS-5, PN-5, PR-5, PE-6 / PW-6, PS-6, PN-6, PR-6, TB-3
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810182**

Sample Date	10/8/98
Sampling ID's (100898)	PE-7, PW-7, PS-7, PN-7, PR-7
Data Package Reviewed On	10/19/98
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810192**

Sample Date	10/9/98
Sampling ID's (100998)	PE-8, PW-8, PS-8, PN-8, PR-8, TB-4
Data Package Reviewed On	10/19/98
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

Kalamazoo River Superfund Project

Cursory Data Review

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9810205**

Sample Date	10/10/98, 10/12/98
Sampling ID's (101098/101298)	PE-9, PW-9, PS-9, PN-9, PR-9 / PE-10, PW-10, PS-10, PN 10, PR-10, TB-5
Data Package Reviewed On	10/19/98
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9811084**

Sample Date	11/3/98
Sampling ID's (110398)	PS-11, PR-11, TB-6
Data Package Reviewed On	10/19/98
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Samples PE-11, PW-11 and PN-11 appear on the field dat sheet and the summary table of sample concentrations, however they do not appear on the C.O.C. and were not submitted to the laboratory for analysis.
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9811091**

Sample Date	11/04/98, 11/05/98
Sampling ID's (110498/110598)	PS-12, PR-12 / PR-13, PS-13
Data Package Reviewed On	10/19/98
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Samples PE-12, PW-12, PN-12, PE-13, PW-13 and PN-13 appear on the field data sheet and the summary table of sample concentrations, however they do not appear on the C.O.C. and were not submitted to the laboratory for analysis.
Air Volume Calculations QA'd	Yes*

Kalamazoo River Superfund Project

Cursory Data Review

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9902325**

Sample Date	2/22/99
Sampling ID's (022299)	PR-14, PW-14, TB-7
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9902355**

Sample Date	2/23/99
Sampling ID's (022399)	PR-15, PW-15
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Air Toxics LTD **Work Order #: 9902386**

Sample Date	2/24/99
Sampling ID's (022499)	PR-16, PN-16
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

Kalamazoo River Superfund Project

Cursory Data Review

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 98-C-6274, 98-C-6306**

Sample Date	10/01/98, 10/02/98
Sampling ID's (100198/100298)	P1,P2/P1-2,P2-2
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCBs
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 98-S-6432, 98-S-6485**

Sample Date	10/07/98, 10/09/98
Sampling ID's (100798/100998)	PL1-1,PL2-1,PL1-2,PL2-2 / PL1-3, PL2-3
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	Lead
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 99-C-4122**

Sample Date	7/19/99
Sampling ID's (0071999)	FT-01, FT-02, FT-03, PS-01, PR-01
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCB
Matrix	Air
Q.C. Sample Submitted	Trip Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 99-C-4148**

Sample Date	7/20/99
Sampling ID's (0072099)	FT-01, FT-02, PE-02, PR-02
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCB
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 99-C-4200**

Sample Date	7/22/99
Sampling ID's (0072299)	FT-01, FT-02, PW-03, PR-03
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCB
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 99-C-4292**

Sample Date	7/27/99
Sampling ID's (0072799)	FT-01, FT-02, ST-PR-01, ST-PN-01
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCB
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Kalamazoo River Superfund Project

Cursory Data Review

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 99-C-4314**

Sample Date	7/28/99
Sampling ID's (0072899)	FT-01, FT-02, ST-PW-02, ST-PR-02
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCB
Matrix	Air
Q.C. Sample Submitted	None
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes

Analytical Laboratory: Data Chem Laboratories **Sample Set ID #: 99-C-4355**

Sample Date	7/29/99
Sampling ID's (0072999)	FT-01, FT-02, ST-PN-02, ST-PR-02
Data Package Reviewed On	10/19/99
Chain-of-Custody Form	Completed
Analysis	PCB
Matrix	Air
Q.C. Sample Submitted	Field Blank
Holding Time	Acceptable
Data Acceptability	Acceptable
Air Volume Calculations QA'd	Yes*

*See Review of Ambient Air Monitoring Results for The Kalamazoo River Superfund Site.

APPENDIX O

WWTP DISCHARGE PERMITS

THE CITY OF

Kalamazoo

PUBLIC SERVICES DEPARTMENT

August 14, 1998
Certified Mail # Z 121 368 761

Mr. Brad Simple
EPA - Allied Paper
77 North Jackson Blvd., SE-5J
Chicago, IL 60604

RE: US EPA - Allied Paper

Dear Mr. Simple:

Please find the Individual Control Document for your facility enclosed with this letter. The Industrial Pretreatment Program requires that a document of this nature be used to specify the conditions under which a Significant Industrial User may discharge wastewater to the City of Kalamazoo Water Reclamation Plant.

Please take the time to read this document and all referenced materials carefully. I ask that you pay particular attention to the reporting requirements starting on page 5 and the monitoring requirements in Part III. The federal government places great emphasis on your responsibility to monitor and report on the quality of wastewater discharged to wastewater treatment plants. A simple missed or late report can place an industrial facility in Significant Noncompliance with pretreatment regulations.

Please note the sampling frequency for Polychlorinated Biphenyls (PCBs) on page 8, is every batch discharged. The detection limit required or PCBs is 0.1 micrograms per liters.

I have also enclosed copies of the City of Kalamazoo Sewer Use Ordinance and Sewer Use Regulations #1-89, #91-1, and #94-1. Of particular importance is Section 28-10 of the Sewer Use Ordinance which provides a list of prohibited discharges referenced in the Individual Control Document.

If you have any questions regarding this matter please call me at (616) 337-8686.

Sincerely,

Robert E. DeMink

Robert E. DeMink
Wastewater Superintendent

c: Kenneth P. Collard, Director of Public Services
Robert Cinabro, City Attorney
File

CITY OF KALAMAZOO

WASTEWATER SERVICE

User Name : EPA-Allied Paper
Address: 77 North Jackson Blvd., SE-5J
Chicago IL 60604

Site Name : US EPA-Allied Paper
Address: Allied Dewatering Lagoons
Kalamazoo MI 49001

Date of Issue : August 13, 1998

Expiration Date : December 31, 1999

SEWER USE REGULATION NO. 94-1

In accordance with the City of Kalamazoo Industrial Pretreatment Program and the Nondomestic User Control Program a pollutant discharge limit is established as follows:

POLLUTANT	DAILY MAXIMUM CONCENTRATION LIMIT (mg/l)
Petroleum Hydrocarbons	100

Compliance with this discharge limit shall be determined by using the analytical method described in the most recent edition of "Standard Methods For The Examination Of Water and Wastewater" for the measurement of Petroleum Hydrocarbons unless an alternative method has been recognized by the Director of Public Utilities.

Issued this 9th day of February, 1994.

Kenneth P. Collard
Public Utilities Director

SEWER USE REGULATION NO. 91-1

In accordance with the City of Kalamazoo Industrial Pretreatment Program and the Non-domestic User Control Program pollutant discharge limits are established as follows:

POLLUTANTS	DAILY MAXIMUM CONCENTRATION LIMIT (mg/L)
Cadmium (Cd)	0.040
Chromium (Cr)	4.670
Copper (Cu)	2.230
Lead (Pb)	0.110
Nickel (Ni)	1.590
Zinc (Zn)	5.300
Total Cyanide (CN)	0.250

Total mercury and total PCB's are pollutants completely prohibited from being discharged into the wastewater treatment system unless an industry exemption has been recognized by the Director of Public Utilities.

Issued this 29th day of April 1991.

Orlin K. Loen

Orlin K. Loen, Director
Public Utilities

CITY OF KALAMAZOO, MICHIGAN
DEPARTMENT OF PUBLIC UTILITIES
WATER RECLAMATION PLANT

SEWER USE REGULATION # 1-89

1. Whenever a violation of Chapter 28 of the Kalamazoo Code or any statute, regulation, permit, or administrative order incorporated by or issued under or pursuant to said chapter occurs, the Director may assess a civil administrative penalty of not more than $500.00 per day violation, commencing with the beginning of said violation.

2. Any person against whom such a penalty is assessed may request a hearing pursuant to section 28-16(b) of the Kalamazoo Code, provided that said request is received by the Director within ten working days of receipt of the notice of the penalty. A person has received notice either upon actual receipt or, in the event actual receipt does not occur, when the U. S. Postal Service returns certified mail as unclaimed.

3. The hearing officer shall determine whether a violation has occurred and, if he finds a violation, the date(s), type(s), severity, and nature of the violation, and what level and amount of penalty is appropriate, not exceeding $500.00 per violation per day.

4. In determining the proper amount of penalty, the hearing officer shall consider the type, nature, severity, frequency, duration, preventability, potential and actual effects, and economic benefit (such as delayed or avoided costs or competitive advantage) of the violations(s), and the violator's recalcitrance and/or efforts to comply. If the violator wants its ability to pay or any other mitigating factor to be considered, the violator bears the burden of demonstrating the presence and degree of such factors. The fact that a penalty would cause severe financial damage or put a violator out of business is not determinative. If the violator has not made all good faith efforts to correct and terminate violations, mitigating factors shall not be considered.

5. Any penalty issued by the Director which is not challenged as provided herein or any penalty assessed by the hearing officer but not paid within 30 days of notification thereof shall be considered a charge for wastewater service under section 28-31 and subject to collection as provided in said section. The notice provisions of section 2 of this Regulation shall apply to the notification of penalty. No further administrative hearing is required.

Issued this 5th day of December, 1989.

Orlin K. Loen

Orlin K. Loen, Director
Public Utilities

Individual Control Document

Table of Contents

Part I: General 1
Discharge Standards 1
Compliance Schedule 1
Monitoring And Reporting 1
Effective Date and Expiration Date 1

Part II: Regulations and Requirements 2
Effect of Individual Control Document 2
Compliance with Applicable Law 2
Property Rights 2
Non-transferability of Individual Control Document 2
Reapplication And Continuance 2
Duty To Reapply 2
Continuation of Individual Control Document 2
Inspection And Entry 3
Reporting And Approvals 3
Anticipated Process Changes Notification 3
Notification Of Changes Impacting Discharge Limits Developed Under the Combined Wastestream Formula And Approval Of Changes 3
Notification Of Changes Potentially Requiring Flow Weighted Averaging Discharge Limits 3
Notification Of Changed Discharge (Non-Emergency Situation) 3
Notification Of Production Changes (If Applicable) 4
Notification Of Potential Noncompliance 4
Notification Of Slug Discharges 4
Notification Of Violations 4
Baseline Monitoring Report, 90-Day Compliance Report And Other Federally Mandated Reports 4
Duty To Provide Information 4
Other Information 4
Telephone Numbers And Reporting Address 4
Signatory Requirements 5
Record Retention 5
Public Availability Of User Information 5
Proper Operation And Maintenance 5
Termination Of Service and Modification, Revocation Or Termination Of Individual Control Document 5
Termination Of Service 5
Modification, Revocation Or Termination Of Individual Control Document 5
Duty To Comply; Liability For Noncompliance 5
Duty To Comply 5
Penalties For Noncompliance 6
Damages 6
Public Notice Of Noncompliance 6

Termination Of Individual Control Document 6
Cessation Of User Discharge 6
Duty To Mitigate 6
Need To Halt Or Reduce Activity Not A Defense 6
Kalamazoo Reservation Of Rights 6
Notification Of Responsibilities Under The Clean Water Act And Resource Conservation Recovery Act 7
Spill Prevention 7
Slug Discharge Control Plan 7
Submission Of Draft Plan 7
Revision Of Draft Plan 7
Compliance With Approved Plan 7
Authorized Kalamazoo Representatives 7
Severability 7

Part III: Discharge Limitations, Monitoring Locations And Reporting 8
Local Discharge "End-Of-Pipe" Limitations 8
Process-Specific Discharge "End-Of-Process" Limitations 8
Discharge Prohibitions 9
Discharge Points And Monitoring Facilities 9
Self-Monitoring And Reporting 9

Frequency and Sampling Requirements 9
Reporting of Increased Monitoring Data 9
Repeat Sampling When Violation Indicated 9
Self-Monitoring Reports 9
Other User Specific Monitoring and Reporting Requirements 10
Averaging Of Measurements 10
Dilution Prohibition 10
Combined Wastestream Formula 10
User To Derive Alternative Discharge Limits Using Combined Wastestream Formula 10
Record-Keeping 10

Part IV: Compliance Schedule 11
Action Required 11
Reporting 11
Effect Of Compliance Schedule 11
Inclusion Of Compliance Schedule Discretionary 11
Compliance With Schedule Milestones Not A Defense 11
Compliance With Federal Categorical Standards 11

Part V: Definitions 13

CITY OF KALAMAZOO
WASTEWATER SERVICE

Individual Control Document
Part I: General

User Name :	EPA-Allied Paper
Address:	77 North Jackson Blvd., SE-5J Chicago IL 60604
Phone :	(312) 886-0406
Contact	Mr. Brad Stimple
Site Name :	US EPA-Allied Paper
Address:	Allied Dewatering Lagoons Kalamazoo MI 49001
Phone :	(312) 886-0406
Contact:	Mr. Brad Stimple

In accordance with the provisions of Kalamazoo Code 28-1 et seq., Michigan Administrative Code R.323.2162 et seq. and 40 CFR Chapter 1, Subchapter N, EPA-Allied Paper hereafter referred to as "User" which is synonymous with "Significant Industrial User" for the purpose of this document is authorized to discharge nondomestic wastewater from the above identified facility and through the outfalls identified herein into the wastewater system of the City of Kalamazoo in accordance with the terms and conditions set forth in this Individual Control Document.

A. Discharge Standards

Specific limits on applicable pollutants discharged to the sanitary sewer are presented in Part III.

B. Compliance Schedule

As required, areas of noncompliance or a time-frame to achieve compliance with new requirements, shall be resolved on the specified timetable included in Part IV.

C. Monitoring And Reporting

User shall install and maintain necessary monitoring systems and pretreatment equipment. User shall perform any required wastestream sampling and analyses. Additional requirements pertaining to monitoring and reporting of monitoring results are set forth in Part II and Part III.

D. Effective Date and Expiration Date

This Individual Control Document is effective as of August 17, 1998 and authorizes User's discharge, subject to the conditions set forth in Parts I, II, III, IV, and V herein, until midnight, December 31, 1999.

Kenneth P. Collard
Director of Public Services

CITY OF KALAMAZOO
WASTEWATER SERVICE

Individual control Document
Part II: Regulations and Requirements

User Name :	EPA-Allied Paper
Address:	77 North Jackson Blvd., SE-5J Chicago IL 60604
Phone :	(312) 886-0406
Contact	Mr. Brad Stimple
Site Name :	US EPA-Allied Paper
Address:	Allied Dewatering Lagoons Kalamazoo MI 49001
Phone :	(312) 886-0406
Contact:	Mr. Brad Stimple

A. Effect of Individual Control Document

1. Compliance with Applicable Law

This Individual Control Document does not relieve the User of its obligations under any local, state, or federal statutes, ordinances, rules, or regulations. Additional local requirements pertaining to wastewater discharge can be found in the City of Kalamazoo Code of Ordinances (Chapter 28), and in any associated Wastewater Use Regulations. User shall comply with all applicable federal, state, and local pretreatment laws, regulations, rules, ordinances, and other pretreatment requirements, including those that may become effective during the term of this Individual Control Document.

2. Property Rights

This Individual Control Document does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to persons or property, invasion of other private rights, or any infringement of federal, state or local laws, regulations, rules, ordinances, or other requirements.

3. Non-transferability of Individual Control Document

This Individual Control Document applies only to the aforementioned identified User and shall not be transferred to another User. A copy of this Individual Control Document must be provided to any new owner/operator of the User's facility prior to the transfer of ownership and/or operator responsibility. User shall adequately document such action (i.e., by certified mail receipt or a signed statement by the owner/operator) and shall provide a copy of the notice or signed statement to the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, within seven (7) days of such action.

B. Reapplication And Continuance

1. Duty To Reapply

If User wishes to continue an activity authorized by this Individual Control Document after its expiration date, User must submit a renewal application at least ninety (90) days prior to the expiration date of this Individual Control Document (unless permission for a later submission date has been granted in writing by the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities).

2. Continuation of Individual Control Document

Authorization to discharge under the terms and conditions of this Individual Control Document continues after the expiration date, subject to the conditions set forth herein, only if (a) User has submitted a timely and complete application for reissuance of an Individual Control Document and (b) the City of Kalamazoo, through

no fault of User, has not yet provided the User a written determination as to whether an Individual Control Document will be reissued. Such authorization to discharge continues only until the date upon which the reapplication is reissued to User or the City of Kalamazoo provides User written notice that an Individual Control Document will not be reissued, whichever comes first.

C. Inspection And Entry

User shall allow authorized Kalamazoo Department of Public Utilities' staff members and their authorized agents and representatives to enter upon the User's premises where a regulated facility or activity is located or conducted, or where records are kept pertaining to such facility or activity 1) at all reasonable times whether or not discharge is occurring, and 2) at any time when there is a reason to believe a discharge or violation is occurring, for inspecting all operations and records, equipment (including monitoring and control equipment), copying records, and observing and sampling wastewater discharges or production processes.

D. Reporting And Approvals

1. Anticipated Process Changes Notification

   a. User shall provide written notification to the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, of any anticipated process change which may substantially affect User's wastewater flow or quality. Process changes under this section are defined as major plant expansions or modifications which result in the discharge of (i) new pollutants, (ii) changed pollutants (e.g., BOD) such that the Kalamazoo treatment plant would be receiving a wastestream to which it is not acclimated, or (iii) the introduction of higher quantities or concentrations of existing pollutants. All process changes that could substantially increase User's flow or substantially affect User's wastewater quality (e.g., lower User's wastewater quality) must be approved by the Department of Public Utilities prior to implementation.

   b. The Department of Public Utilities may require the User to undertake a compatibility study to demonstrate to the satisfaction of the Department that the wastewater to be discharged is compatible with the existing Kalamazoo wastewater system, will not affect any requirements imposed upon the City (including sludge disposal requirements) and will not adversely affect the Kalamazoo wastewater system.

2. Notification Of Changes Impacting Discharge Limits Developed Under the Combined Wastestream Formula And Approval Of Changes (If Applicable)

   a. If User is subject to alternative discharge limits based upon the combined wastestream formula (40 CFR § 403.6(e)), User shall provide written notification to the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, within five (5) business days after the User has a reasonable basis to believe that an anticipated plant operation change may result in a material or significant change in the values used in calculating alternative categorical discharge limits under the combined wastestream formula. Plant operation changes under this subsection include, but are not limited to, changes in production and changes in the flow of a regulated process wastestream, unregulated process wastestream or dilute wastestream.
   b. User shall provide the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, written notification of its intent to mix a regulated process wastestream prior to its treatment with wastewaters other than those generated by the regulated process. Such mixing of wastestreams must be approved by the Department of Public Utilities prior to implementation. These provisions do not apply to mixtures of regulated process wastestreams which have already been identified to the City of Kalamazoo and which are subject to an effluent limitation in Part III based upon the combined wastestream formula or a more stringent state or local limitation. (See also Part III, Section VIII *pertaining to User derivation of alternative discharge limits.*)

3. Notification Of Changes Potentially Requiring Flow Weighted Averaging Discharge Limits

   User shall provide the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, at least thirty (30) days written notification of its intent to combine an unregulated process wastestream with a treated regulated process wastestream if monitoring for compliance with applicable categorical pretreatment standards occurs at a point downstream of where the wastestreams are combined. Such action may require modification of discharge limits in Part III based upon the flow-proportioning calculation or modification of sampling locations, as appropriate.

4. Notification Of Changed Discharge (Non-Emergency Situation)

   User shall provide written notification to the Industrial Services Supervisor, at the Department of Public Utilities within five (5) working days, of any substantial change in the volume or character of pollutants in its discharge, including changes in the listed or characteristic hazardous wastes for which the User has submitted a notification under 40 CFR § 403.12(p).

5. Notification Of Production Changes (If Applicable)

   Not Applicable

6. Notification Of Potential Noncompliance

   User shall provide written notification to the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, of any planned changes in its activities which may result in noncompliance with the terms and conditions set forth herein.

7. Notification Of Slug Discharges

   User shall provide immediate notification by telephone to the Department of Public Utilities of any spills, slug loads, bypasses or upsets in pretreatment processes that affect discharge to the wastewater system, could cause problems to Kalamazoo's wastewater system or which otherwise could be reasonably expected to endanger health or the environment. User must monitor its processes and activities to assure prompt detection of any problems. A written report, explaining the event, and what steps are being taken to prevent future occurrences, must be submitted to the Industrial Services Supervisor within five (5) working days following the event.

8. Notification Of Violations

   If sampling performed by the User indicates a violation of any local, state or federal discharge limitations, the User must notify by telephone the City of Kalamazoo Department of Public Utilities within 24 hours of becoming aware of the violation.

9. Baseline Monitoring Report, 90-Day Compliance Report And Other Federally Mandated Reports

   User shall comply with baseline monitoring report requirements, ninety-day compliance report, and other federally mandated reporting requirements as set forth in 40 CFR § 403 et seq.

10. Duty To Provide Information

    User shall furnish the City of Kalamazoo, within a reasonable time, any information which the City may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the Individual Control Document or to determine User pretreatment compliance. User shall also furnish to the City, upon request, copies of records required to be kept by the Individual Control Document.

11. Other Information

    Where the User becomes aware that it failed to submit any relevant facts in an application for an Individual Control Document, or submitted incorrect information in an application for an Individual Control Document, report to the City of Kalamazoo, or in any other correspondence pertaining to its nondomestic wastewater discharge, it shall promptly submit such facts or information.

12. Telephone Numbers And Reporting Address

    a. Any notifications or reports required by this Individual Control Document regarding spills, slug discharges, or other emergencies to be communicated via telephone to the Public Utilities Department shall use the following telephone numbers:

       (1) Telephone the Treatment Control Analyst (TCA) at (616) 337-8681. If the TCA does not answer, leave a message on the recorder with your name, company, a phone number where you can be reached and reason for your phone call. They will respond to your phone call promptly.

    b. For non-emergency notifications or general telephone communications use (616) 337-8701.

    c. Any written notifications or reports required by this Individual Control Document to be submitted to the Kalamazoo Public Utilities Department shall be submitted to the following address:

       Industrial Inspections Supervisor
       City of Kalamazoo Public Utilities Department
       1415 North Harrison Street
       Kalamazoo, Michigan 49007-2565

E. Signatory Requirements

All reports required under this Individual Control Document or otherwise submitted to the Kalamazoo Public Utilities Department pursuant to federal, state or local pretreatment requirements shall be signed by a representative of the User in accordance with 40 CFR § 403.12(1) and shall include the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

F. Record Retention

User is required to retain all records pertaining to its wastewater discharge for a minimum of three (3) years and shall make such reports available for inspection and copying by the City. This includes, but is not limited to, all records of monitoring activities and results (whether or not such monitoring activities are otherwise required by the Individual Control Document) including calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation; monitoring information identified in Part III; copies of reports required by the Individual Control Document; and records of all data used to complete the application for issuance or reissuance of this document. This period of retention is automatically extended during the course of any unresolved litigation regarding the discharge of pollutants or when requested in writing by the City of Kalamazoo at any time.

G. Public Availability Of User Information

At a minimum, the following User information received by the City of Kalamazoo shall be made available for public inspection by the Department of Public Utilities: (1) effluent data; (2) any data used to determine compliance with Chapter 28 of the Kalamazoo Code or the National Pollutant Discharge Elimination Permit issued to the City of Kalamazoo; and (3) other User information and data, to the extent provided by 40 CFR § 403.13(b) and (c).

H. Proper Operation And Maintenance

User shall at all times properly operate and maintain all pretreatment facilities and systems of treatment and control (and related appurtenances) which are installed or used by the User to achieve compliance with the terms and conditions of this Individual Control Document. This includes adequate laboratory controls and appropriate quality assurance procedures, the operation of back-up or auxiliary facilities or similar systems which are installed by the User only when the operation is necessary to achieve compliance with the conditions of this Individual Control Document.

I. Termination Of Service and Modification, Revocation Or Termination Of Individual Control Document

1. Termination Of Service

The Department of Public Utilities can take immediate action to terminate service and/or halt discharges if the User's discharge poses a significant threat to the City's wastewater collection or treatment system, the environment, or human health or welfare.

2. Modification, Revocation Or Termination Of Individual Control Document

a. This Individual Control Document, or any part thereof, is subject to change, modification, revocation or reissuance at the sole discretion of the City of Kalamazoo.

b. A request by the User for modification or revocation and reissuance does not stay any term or condition set forth herein pending a decision by the City of Kalamazoo upon such request.

J. Duty To Comply; Liability For Noncompliance

1. Duty To Comply

User must comply with (a) all terms and conditions of this Individual Control Document and (b) applicable pretreatment requirements established under federal, state or local law whether or not those requirements are specifically set forth herein. These requirements include, but are not limited to, federal categorical pretreatment standards (40 CFR Chapter 1, Subchapter N); federal general prohibitions (40 CFR § 403.5(a)(1)); federal specific prohibitions (40 CFR § 403.5(b)), and local limits set forth in Chapter 28 of the

Kalamazoo City Code of Ordinances. Any noncompliance constitutes a violation and is grounds for enforcement action, for Individual Control Document termination, revocation and reissuance, modification, or denial of a request for reissuance.

2. Penalties For Noncompliance

Noncompliance with any terms or conditions of this Individual Control Document, any applicable statute, ordinance, regulation, rule, or other pretreatment requirement may subject the User to civil and/or criminal penalties. These penalties include, but are not limited to, a fine of $25,000 per day for each violation under federal law (33 U.S.C. § 1319(d)) and the administrative assessment of up to $500.00 per day per violation under local law (City of Kalamazoo Wastewater Use Regulation 1-89).

3. Damages

In addition to any applicable civil or criminal penalty, User is liable for:

a. All damage which its discharge does to the City of Kalamazoo's wastewater collection or treatment system if that damage is caused, in whole or in part, by the User's violation of this Individual Control Document or any applicable law, ordinance, regulation, rule, or pretreatment requirement.

b. Any penalty imposed upon the City of Kalamazoo (whether by judicial or administrative order or the settlement of a judicial or administrative penalty action) where the violation of the City of Kalamazoo was caused by the User, either alone or in conjunction with discharge(s) from other source(s).

c. Such other damages, e.g., lost revenues, as are authorized by law to be collected by the City of Kalamazoo.

4. Public Notice Of Noncompliance

If User is determined by the City of Kalamazoo to be in significant noncompliance, as defined in 40 CFR § 403.8(f)(2)(vii), the City of Kalamazoo shall provide an annual public notification of such status in a local daily newspaper.

5. Termination Of Individual Control Document

Compliance with this Individual Control Document is a necessary condition of receiving wastewater service. The City of Kalamazoo may terminate this Individual Control Document and wastewater service for, among other things, noncompliance with any of the terms or conditions set forth herein, or any requirements set forth in an applicable law, ordinance, regulation, or rule.

6. Cessation Of User Discharge

Upon notice from Kalamazoo, User shall immediately cease any discharge of pollutants which reasonably appears to present an imminent endangerment to the health or welfare of persons, presents an endangerment to the environment or which threatens to interfere with the operation of the Kalamazoo wastewater system.

7. Duty To Mitigate

User shall take all reasonable steps to minimize or prevent any discharge which has the reasonable likelihood of adversely affecting human health, the environment, or the Kalamazoo wastewater system.

8. Need to Halt Or Reduce Activity Not A Defense

It shall not be a defense for the User in an enforcement action that it would have been necessary to halt or reduce the authorized activity in order to maintain compliance with the terms and conditions of this Individual Control Document, or any requirements set forth in an applicable law, ordinance, regulation or rule.

9. Kalamazoo Reservation Of Rights

Nothing in this Individual Control Document shall be deemed to limit or otherwise waive the liability of User to the City of Kalamazoo under local, federal, or state law (including common law), for damages, injury, loss, or other liability resulting from User's discharge to the Kalamazoo wastewater system. Nor shall any provision in this Individual Control Document be deemed to limit the ability of the City of Kalamazoo to take action, as necessary, to enjoin or abate User's discharge.

K. Notification Of Responsibilities Under The Clean Wate Act And Resource Conservation Recovery Act

User is hereby notified of its legal responsibility to comply with applicable pretreatment standards (See 40 CFR Chapter I, Subchapter N), sections 204(b) and 405 of the Clean Water Act, and Subtitles C and D of the Resource Conservation and Recovery Act (See e.g., 40 CFR § 261 et seq.). This includes the duty to notify the City of Kalamazoo, the U.S. Environmental Protection Agency, and the State of Michigan pursuant to 40 CFR § 403.12(p) of any discharge into Kalamazoo's treatment plant which, if otherwise disposed of, would be a hazardous waste under 40 CFR § 261.

L. Spill Prevention

User shall install any equipment or devices necessary to prevent any spillage or leakage of process solutions or chemicals from entering the wastewater system. Additionally, the User shall store bulk chemicals and toxic wastes in such a manner to prevent any accidental discharge to the wastewater system in the event of a spill.

M. Slug Discharge Control Plan (If Applicable)

1. Submission Of Draft Plan

Specified Date: Not Applicable

By date specified above, User shall submit a draft slug control plan to the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities. Such plan, at a minimum, shall address the following elements:

a. Description of discharge practices, including non-routine batch discharges;

b. Description of stored chemicals;

c. Procedures for immediately notifying the Kalamazoo Department of Public Utilities of slug discharges, including any discharge that would violate a specific prohibition (see 40 CFR § 403.5(b)), with procedures for follow-up written notification within five (5) days;

d. Procedures as necessary to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents) and/or measures and equipment necessary for emergency response.

2. Revision of Draft Plan

User shall revise its draft slug control plan in accordance with comments received from the City of Kalamazoo within thirty days, unless a longer time period is provided in writing by Kalamazoo.

3. Compliance With Approved Plan

User shall comply with the slug control plan as approved, including any changes set forth by the Kalamazoo Department of Public Utilities.

N. Authorized Kalamazoo Representatives

The City of Kalamazoo may act through its Department of Public Utilities or such other department or persons as the City in its sole discretion deems appropriate in responding to User's pretreatment obligations. These activities include, but are not limited to, termination of service, enforcement and inspection.

O. Severability

The provisions of this Individual Control Document are severable, and if any provision of this document or the application of any provision of this document to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this document, shall not be affected thereby.

Wastewater Service

Individual Control Document
Part III: Discharge Limitations, Monitoring Locations and Reporting

User Name:	EPA-Allied Paper
Address:	77 North Jackson Blvd., SE-5J Chicago IL 60604
Phone:	(312) 886-0406
Contact	Mr. Brad Stimple
Site Name:	US EPA-Allied Paper
Address:	Allied Dewatering Lagoons Kalamazoo MI
Phone :	(312)886-0406
Contact:	Mr. Brad Stimple

A: Discharge Limitations,

1. These limitations and sampling requirements apply to the discharge from your facility to the wastewater system at the designated monitoring location described in (2) below. Please refer to the City of Kalamazoo Code, Chapter 28, (or the applicable ordinance of the municipality where the facility is located and Part III (C) below for prohibited discharge limitations.

Pollutants	Daily Max	Monthly Average If applicable	Unit	Minimum Campling Frequency	Sample Type
BETX	15		mg/l	Weekly	GRAB
CADMIUM	40		ug/l	Weekly	GRAB
COPPER	2230		ug/l	Weekly	GRAB
CYANIDE	250		ug/l	Weekly	GRAB
LEAD	110		ug/l	Weekly	GRAB
MERCURY	PROHIBITED		ug/l	Weekly	GRAB
NICKEL	1590		ug/l	Weekly	GRAB
PCBs	PROHIBITED		ug/l	every batch	GRAB
TOTAL CHROMIUM	4670		ug/l	Weekly	GRAB
PETROLEUM HYDROCARBON	100		mg/l	Weekly	GRAB
ZINC	5300		ug/l	Weekly	GRAB
pH	6.2-9.8		S.U.	Weekly	GRAB

Analyze for TOTALS for 48 HR TAT

Analyze for TOTALS for 48 HR TAT.

2. The following location is the designated End-of-Process monitoring location for the facility.

Code	Monitoring Location Description
APE	Three tanks next to pretreatment system.

C. Discharge Prohibitions

User shall not cause interference or pass through; or discharge in violation of the specific prohibitions set forth in 40 CFR 403.5(b) or the prohibited discharge requirements set forth in the City of Kalamazoo Code (or the applicable ordinance of the municipality where the facility is located).

D. Discharge Points and Monitoring Facilities

User may discharge nondomestic wastes into the Kalamazoo tareatment system only at the sampling locations identified in Part III (A) and (B) . Alternate discharge or sampling points may only be used upon written approval from the Industrial Services Supervisor at th City of Kalamazoo. User shall maintain monitoring locations and associated equipment. User shall also install equipment or implement other verifiable techniques to measure flow. User may be required, at the discretion of the City of Kalamazoo to install and maintain automatic sampling equipment.

E. Self-Monitoring And Reporting

1. Frequency and Sampling Requirements

A. User shall perform the the following sampling and analyses: An adequate number of samples shall be collected to ensure that the process discharge equipment is operating properly and that the wastewater discharge does not violate limitations set forth in this Individual Control Document. At a minimum, samples shall be collected at least as frequently as specified in Part III (A) and (B) for all pollutants listed. For pollutants with a "grab" sample technique indicated, a minimum of four (4) grab samples must be used. All other samples must be 24 hour flow proportional composite samples where feasible. If flow proportional compositing is infeasible, samples may be obtained through time proportional composite sampling techniques.

B. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Samples shall be taken on a day when the regulated pollutants are likely to be present in their maximum concentration, including monitoring of batch discharges should such discharges occur.

C. All sampling and analyses shall be conducted according to EPA-approved methods set forth in 40 CFR § 136 or other validated procedures approved by the Director of Public Utilities.

2. Reporting of Increased Monitoring Data

User may monitor more frequently than required by this Individual Control Document. If the User monitors any pollutant more frequently than required by this Individual Control Document using the procedures set forth in 40 CFR § 136, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the User's self-monitoring report.

3. Repeat Sampling When Violation Indicated

If sampling performed by the User indicates a violation, the User shall:

a. Notify the City of Kalamazoo within 24 hours of becoming aware of the violation.
b. Repeat sampling and analyses for the pollutant(s) in violation.
c. Submit the results of the repeated analyses to the Industrial Services Supervisor within 30 days after becoming aware of the violation.

More than one resample may be required to establish a return to compliance.

4. Self-Monitoring Reports

Self-monitoring reports shall be submitted monthly. Reports for each period shall be due on the tenth of the month following the period. Reporting forms supplied by the City of Kalamazoo to the User, if applicable, shall be used and appropriately completed. At a minimum the reports shall contain:

a. Average and maximum daily flows for the period.

b. Results of all sampling performed by the User during the period.

c. Certification Statement: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

5. Other User Specific Monitoring and Reporting Requirements

Monthly Flow Report: Total monthly flow shall be reported to the Industrial Inspections Supervisor. The report shall be due each month by the 10th of the followig month.

Initial Self-Monitoring: A minimum of one (1) sample shall be collected each week during the first six (6) weeks of discharge for all pollutants listed in Part III. A. 1. Initial Self-monitoring sample results must be included with the Monthly Flow Report for the respective month.

PCB's Results Report: All wastewater batches contained in the treatment tanks will be analyzed for PCB's and held until the sample results indicate the wastewater batch is in compliance with the City of Kalamazoo's PCB's discharge limit. After conformation, the wastewater batch can be discharged in a controlled manner. The PCB's sample results must be included with the Monthly Flow Report for the respective month.

F. Averaging of Measurements

Calculations for limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Individual Control Document or in the applicable federal, state or local pretreatment standards.

G. Dilution Prohibition

Except where expressly authorized to do so by an applicable pretreatment standard or requirement, User shall not increase the use of process water, or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with a pretreatment standard or requirement.

H. Combined Wastestream Formula

1. User To Derive Alternative Discharge Limits Using Combined Wastestream Formula

Where a regulated process wastestream is to be mixed prior to its treatment with wastewaters other than those generated by the regulated process, the User shall derive alternative discharge limits for each regulated pollutant in each process wastestream pursuant to the combined wastestream formula set forth in 40 CFR § 403.6(e). This requirement does not apply to mixtures of regulated process wastestreams which have already been identified by the User to the City of Kalamazoo.

2. Alternative limits derived by the User shall not apply to the User until approved or modified in writing by the City of Kalamazoo. User shall comply with the discharge limits set forth in Part III (A) and (B) until the City of Kalamazoo modifies the limits or approves a modification request.

I. Record-Keeping

User shall maintain records of monitoring of wastewater at its (1) end of pipe, (2) end of process, and (3) any other internal wastestream monitoring regardless if the User is otherwise required by this Individual Control Document to monitor its wastewater at such locations, frequencies, or pollutant parameters. Records shall include:

1. The dates, exact location, method and time of sampling or measurements and the individual(s) who performed the sampling or measurements;

2. The date(s) analyses were performed, the analytical techniques or methods used, the individual(s) who performed the analyses, and the results of such analyses.

CITY OF KALAMAZOO
WASTEWATER SERVICE

Individual Control Document
Part IV: Compliance Schedule

User Name :	EPA-Allied Paper
Address:	77 North Jackson Blvd.. SE-5J Chicago IL 60604
Phone :	(312) 886-0406
Contact	Mr. Brad Stimple
Site Name :	US EPA-Allied Paper
Address:	77 North Jackson Blvd., SE-5J Kalamazoo MI 49001
Phone :	(312) 886-0406
Contact:	Mr. Brad Stimple

A. Action Required

ANY PERMITS OR APPROVALS WHICH MUST BE OBTAINED FROM OTHER GOVERNMENTAL AGENCIES ARE THE RESPONSIBILITY OF THE USER. The City of Kalamazoo does not by its approval of any of the designs or installation of the plants and equipment, warrant or aver in any manner that User's implementation of such measures will result in compliance with User's pretreatment requirements. Notwithstanding any approval of such plans by the City of Kalamazoo. User remains solely responsible for compliance with the terms of this Individual Control Document and federal, state and local requirements.

B. Reporting

Reports of compliance or noncompliance with, or any progress reports on requirements set forth in Part IV Section I, above, shall be submitted to the City of Kalamazoo no later than 14 days following each schedule date. Reports shall, at a minimum, identify whether the User has complied with the increment of progress to be met on such date and, if not, the date on which it expects to comply with this increment of progress, the reason for delay, and the steps being taken by the User to return to the established schedule. (40 CFR § 403.12(c))

C. Effect Of Compliance Schedule

1. Inclusion Of Compliance Schedule Discretionary

   The City of Kalamazoo may amend this Individual Control Document, at its discretion, to include a compliance schedule to address any instances of noncompliance with a federal, state or local pretreatment requirement, including noncompliance with the terms and conditions set forth in this Individual Control Document. A compliance schedule may also be included to set forth reasonably expeditious milestones for complying with new federal, state or local requirements.

2. Compliance With Schedule Milestones Not A Defense (If Applicable)

   Compliance with the milestones set forth in Part IV, Section I, above, does not absolve the User from its legal obligations to comply with the requirements as otherwise set forth in this Individual Control Document or any applicable federal, state or local law, regulation, rule, ordinance or pretreatment requirement. Accordingly, it shall not be a defense to an enforcement action that the User complied with the milestones set forth above.

3. Compliance With Federal Categorical Standards

   Compliance by existing sources with federal categorical pretreatment standards shall be within three (3) years

of the date the standard is effective unless a shorter compliance time is specified in the applicable subpart of 40 CFR Chapter I, Subchapter N. New sources shall meet all applicable pretreatment standards within the shortest feasible time not to exceed ninety (90) days. At a minimum, User shall submit to the Industrial Services Supervisor, at the Kalamazoo Department of Public Utilities, semi-annual notices (on the first day of the months of April and October) identifying specific actions taken to comply with such standards.

CITY OF KALAMAZOO
WASTEWATER SERVICE

Individual Control Document
Part V: Definitions

User Name :	EPA-Allied Paper
Address:	77 North Jackson Blvd., SE-5J Chicago IL 60604
Phone :	(312) 886-0406
Contact	Mr. Brad Stimple
Site Name :	US EPA-Allied Paper
Address:	Allied Dewatering Lagoons Kalamazoo MI 49001
Phone :	(312) 886-0406
Contact:	Mr. Brad Stimple

Except as provided below, terms set forth herein shall be defined as set forth in Kalamazoo Code § 28-1 or Wastewater Use Regulations. If a term is not defined below or in the Kalamazoo Code or Wastewater Use Regulations, then it shall be defined as set forth in corresponding federal regulations. (See. e.g.. 40 CFR § 403.3.)

A. Daily Maximum: The maximum allowable discharge of a pollutant during a calendar day. Where daily maximum discharge limits are expressed in units of mass, the daily discharge is the total mass discharges over the course of the day. Where daily maximum limitations are expressed in terms of concentration, the daily discharge is the arithmetic average measurement of the pollutant concentration derived from all measurements taken that day.

B. Domestic Waste: Human waste and other waste related to personal or residential sanitation including hauled septage waste.

C. Flow Proportional Composite Sample: A sampling method which combines discrete aliquots of a sample collected over time, based on the flow of the wastestream being sampled. The aliquots collected shall be at constant time intervals with the volume of each aliquot varying based upon the stream flow. Flow proportional samples can also be a combination of constant volume samples collected at time intervals which vary based on the stream flow.

D. Grab Sample: A sample which is taken on a one-time basis with no regard to the flow of the wastestream and without consideration of time.

E. Monthly Average: The sum of the concentrations of the individual samples divided by the number of samples taken during a calendar month. If the pollutant concentration in any sample is less than the detection limit, a value of zero is used in calculating the monthly average concentration.

F. Non-Domestic Wastewater: Wastewater that contains nondomestic waste including contaminated groundwater and leachate.

G. Regulated Process Wastestream: An industrial process wastestream regulated by a national categorical pretreatment standard. Such determination may be pollutant specific - a wastestream from a process may be "regulated" for one pollutant and "unregulated" for another.

H. Time Proportional Composite Sample: A sampling method which combines discrete sample aliquots of constant volume collected at constant time intervals.

I. Unregulated Process Wastestream: An industrial process wastestream that is not regulated by a national categorical pretreatment standard. Such determination may be pollutant specific - a wastestream from a process may be "regulated" for one pollutant and "unregulated" for another.

Kalamazoo Water Reclamation Plant
Discharge Limitations

Discharges to the Kalamazoo Water Reclamation Plant are controlled by the following limitations:

Pollutant	Daily Maximum Concentration Limit (ug/L)
Cadmium, T	40
Chromium, T	4670
Copper, T	2230
Lead, T	110
Nickel, T	1590
Zinc, T	5300
Cyanide, T	250
Total Petroleum Hydrocarbon (mg/L)	100 (mg/L) = 0.1 mg/l
pH (S.U.)	6.2 - 9.8 S.U.
BETX	15 (mg/L)

Prohibited Discharges - condensed from the General Pretreatment Regulations and the Kalamazoo City Code of Ordinances.

1. PCBs - no discharge allowed. (0.0001 mg/l required detection limit)
2. Mercury - no discharge allowed. (0.0005 mg/l required detection limit)
3. Pollutants which cause a fire or explosion hazard including, but not limited to, wastestreams with a closed cup flash point of less than 140 degrees Fahrenheit or 60 degrees Centigrade.
4. Solid or viscous pollutants in amounts which will cause obstruction in flow.
5. Any pollutant, including oxygen demanding pollutants (BOD, etc.) which will cause interference with wastewater treatment or which will pass through untreated.
6. Heat in amounts which will inhibit biological activity, but in no case heat in such quantities that the temperature at the plant exceeds 40° C (104° F).
7. Pollutants which result in the presence of toxic gases, vapors, or fumes in a quantity that may cause worker health and safety problems for sewer workers or the general public.
8. Any trucked or hauled pollutants except at the designated discharge point at the Kalamazoo Water Reclamation Plant.
9. Radioactive wastes or isotopes, unless their disposal via wastewater is authorized by federal, state, and local regulations, and then only when discharge into the wastewater system does not cause damage or a hazard to the system, persons operating the system, or the general public.
10. Wastewater discharged at a rate which upsets or interferes with the treatment process or causes a hydraulic surge.
11. Storm water, uncontaminated groundwater, unpolluted non-contact cooling water.

In addition to these limitations, certain industrial discharges are subject to Categorical Pretreatment Standards.

STATE OF MICHIGAN

JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY
"Better Service for a Better Environment"
HOLLISTER BUILDING, PO BOX 30473 LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us
RUSSELL J. HARDING, Director

REPLY TO:
SURFACE WATER QUALITY DIVISION
KNAPPS CENTRE
PO BOX 30273
LANSING MI 48909-7773

RECEIVED
SEP 08 1998

July 17, 1998

CERTIFIED MAIL -- P 257 551 501

U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard, SE-5J
Chicago, Illinois 60604

Dear Sir or Madam:

SUBJECT: Substantive Requirements Document -- No. MIU990019
Allied Paper-Bryant Mill Pond Site, Kalamazoo, Michigan -- Superfund Site

The application for substantive requirements for wastewater discharge from the Allied Paper Corporation has been processed. The enclosed Substantive Requirements Document (SRD) contains the requirements necessary for compliance with state and federal water pollution control laws.

Please review the requirements in the SRD, including the monitoring and reporting responsibilities. Discharge Monitoring Report forms will be transmitted to you in the near future. These reports are to be submitted as required by the SRD.

Any report, notifications, or questions regarding the enclosed SRD programs should be directed to the following address:

Mr. Fred Morley, District Supervisor
Plainwell District Office, SWQD, DEQ
1342 SR-89 W, Suite B
Plainwell, Michigan 49080-1915
Telephone: 616-692-2120

Questions about the basis for the SRD requirements may be directed to Ms. Camille Parker of the Permits Section at 517-335-4115.

Sincerely,

William McCracken
Chief, Permits Section
Surface Water Quality Division
517-373-8088

Enclosure: Substantive Requirements Document
cc: Mr. Fred Morley, Plainwell District Supervisor, SWQD (2)
Ms. Camille Parker, Permits Section, SWQD
PCS Unit, SWQD
Superfund Section, ERD
Files

EQP 3100e
Rev. 1/98

MIU990019

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

SUBSTANTIVE REQUIREMENTS DOCUMENT FOR THE ALLIED PAPER CERCLA OUTFALL SITE

Authorization to (hereinafter referred to as the "discharger"):

U.S. EPA Region-5
77 West Jackson Blvd. SE-5J
Chicago, Illinois 60604

is authorized to discharge from the Bryant Mill Pond Clean-up Site located at

E1/2, Section 27, T2S, R11W
Kalamazoo County, Michigan 49001

designated as Allied Paper-Bryant Mill Pond SF

In accordance with Section 121(d) of the Comprehensive Environmental Response, Compensation, and Liabjlity Act (42 U.S.C. 9601 et seq; "CERCLA") and the Superfund Amendments and Reauthorization Act (Public Law No. 99-499, "SARA"), the Surface Water Quality Division of the Michigan Department of Environmental Quality, in compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18, which are legally applicable or relevant and appropriate requirements (ARARs), herein establishes substantive requirements for a discharge of process wastewater from dewatering activities from the Allied Paper CERCLA Outfall Site to Portage Creek in Section 27, T2S, R11W, Kalamazoo Township, Kalamazoo County.

These substantive requirements are based on information (hereinafter referred to as the "application") received on March 12, 1998, from U.S. EPA Region-5, which provided a description of the wastewater characteristics and proposed treatment. If new information is received subsequent to the effective date of this document, these substantive requirements may be revised if necessary to protect the receiving waters consistent with the Act and the Michigan Act.

This document is not a National Pollutant Discharge Elimination System (NPDES) permit. A NPDES permit is not required for this on-site remedial action associated with a CERCLA cleanup, however, a NPDES permit shall be required to authorize any discharges from this site under any circumstances not exempted by CERCLA Section 121(e)(1).

Effective Date: June 12, 1998.

William E. McCracken
Chief, Permits Section
Surface Water Quality Division

PART I

Section A. Limitations And Monitoring Requirements

1. Final Effluent Limitations, Outfall 001

This document is based on the discharge of seventy-five thousand (75,000) gallons per day of treated process wastewater from dewatering activities through outfall 001 to Portage Creek. Such discharge shall be limited and monitored by the discharger as specified below:

Parameter	Maximum Limits for Quantity or Loading			Maximum Limits for Quality or Concentration			Frequency of Analysis	Sample Type
	Monthly	Daily	Units	Monthly	Daily	Units		
INFLUENT MONITORING AND REPORTING								
Polychlorinated Biphenyls (PCBs)	—	—	—	(report)	(report)	µg/l	Weekly	Grab
Total Suspended Solids	—	—	—	(report)	(report)	mg/l	Weekly	Grab
INTERMEDIATE STAGE MONITORING AND REPORTING								
PCBs	—	—	—	(report)	(report)	µg/l	Weekly	Grab
DISCHARGE LIMITATIONS, MONITORING AND REPORTING								
Flow	(report)	(report)	MGD	—	—	—	Daily	Report Total Daily Flow
PCBs	1.6×10^{-5}	—	lbs/day	2.6×10^{-5}	—	µg/l	Daily	Composite
Total Suspended Solids	—	—	—	30	45	mg/l	Daily	Composite
Equipment Inspection	(report)	—	—	—	—	—	3X/Week	Visual
Outfall Observation	(report)	—	—	—	—	—	Daily	Visual

PART I

Section A. Limitations And Monitoring Requirements

a. Limits Below Level of Detection

The sampling procedures, preservation and handling, and analytical protocol for compliance monitoring for PCBs shall be in accordance with EPA Method 608. The quantification level shall not exceed 0.1 µg/l, unless higher levels are appropriate because of sample matrix interference. Other analytical methods may be used upon approval of the Plainwell District Supervisor of the Surface Water Quality Division.

The water quality-based effluent limitations for PCBs are less than the level of detection using the specified analytical methods. Any discharge of PCBs at or above the level of detection is a specific violation of this document. If all the samples in any monthly reporting period are less than the level of detection, the Michigan Department of Environmental Quality will consider the discharger to be in compliance with the final effluent limitations for these pollutants for that reporting period. This paragraph does not authorize the discharge of PCBs at levels which are injurious to the designated uses of the waters of the state or which constitute a threat to the public health or welfare. Total PCBs shall be defined as the sum of Aroclors 1242, 1248, 1254, and 1260. In addition, any detected Aroclor-specific measurements shall be reported.

b. BAT Treatment

This document is based on the discharger providing filtration and liquid-phase granular two-stage activated carbon. If treatment other than filtration and liquid-phase granular two-stage activated carbon is proposed, the discharger shall amend the application received on March 12, 1998. This document may then be modified to include additional effluent limitations to protect water quality in accordance with applicable rules and regulations.

c. Narrative Standard

The receiving water shall contain no unnatural turbidity, color, oil films, floating solids, foams, settleable solids, or deposits as a result of this discharge.

d. Monitoring Locations

Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to treatment for all influent monitoring, between the carbon stages for intermediate stage monitoring, and after treatment but prior to mixing with any other waste stream for all effluent monitoring.

e. Monitoring Frequency

Upon initiation of discharge, the influent, the intermediate stage, and the effluent shall be monitored and sampled at the frequency indicated in Part I.A.1. of this document. After three (3) months, and if steady state conditions have been achieved, the discharger may request a reduction in monitoring frequency. This request shall be submitted to the Plainwell District Supervisor of the Surface Water Quality Division. Upon receipt of written approval and consistent with such approval, the discharger may reduce the monitoring frequency indicated in Part I.A.1. of this document. The monitoring frequency shall not be reduced to less than once per month. The Plainwell District Supervisor may revoke the approval for reduced monitoring at any time upon notification to the discharger.

f. Analytical Testing

The discharger shall store the treated wastewater until sampling and analysis confirms that the discharge limitations have been achieved prior to discharging the wastewater to Portage Creek.

g. Proper Operation and Maintenance

The discharger shall operate the two-stage activated carbon treatment system so that rotation and replacement of the carbon tanks shall occur immediately upon detection of PCBs at the intermediate stage.

h. Outfall Observation

Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Plainwell District Supervisor of the Surface Water Quality Division followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.

PART I

Section A. Limitations And Monitoring Requirements

i. *Water Treatment Additives*

This document does not authorize the discharge of water additives without approval from the Department. Water additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a discharger proposes to discharge water additives, the discharger shall submit a request to the Department for approval. Such requests shall be sent to the Great Lakes and Environmental Assessment Section, Surface Water Quality Division, Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan 48909, with a copy of the request to the District Supervisor. Instructions may be obtained via the internet at *http://www.deq.state.mi.us/swq/gleas/docs/wta/wtamemo.htm* to submit a request electronically. Written approval from the Department to discharge such additives at specified levels shall be obtained prior to discharge by the discharger. Additional monitoring and reporting may be required as a condition for the approval to discharge the additive.

A request to discharge water additives shall include all of the following water additive usage and discharge information:

1) Material Safety Data Sheet;

2) the proposed water additive discharge concentration;

3) the discharge frequency (i.e., number of hours per day and number of days per year);

4) the outfall from which the product is to be discharged;

5) the type of removal treatment, if any, that the water additive receives prior to discharge;

6) product function (i.e. microbiocide, flocculant, etc.);

7) a 48-hour LC_{50} or EC_{50} for a North American freshwater planktonic crustacean (either *Ceriodaphnia sp., Daphnia sp., or Simocephalus sp.*); and

8) the results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2) of the Water Quality Standards.

Prior to submitting the request, the discharger may contact the Great Lakes and Environmental Assessment Section by telephone at 517-335-4184 or via the internet at *http://www.deq.state.mi.us/swqd/gleas/docs/wta/wtalist.htm* to determine if the Department has the product toxicity data required by items 7) and 8). If the Department has the data, the discharger will not need to submit product toxicity data.

PART II

Section A. Definitions

This list of definitions may include terms not applicable to this document.

Acute toxic unit (TU_a) means $100/LC_{50}$ where the LC_{50} is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

Bioaccumulative chemical of concern (BCC) means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

Chronic toxic unit (TU_c) means $100/MATC$ or $100/IC_{25}$, where the maximum acceptable toxicant concentration (MATC) and IC_{25} are expressed as a percent effluent in the test medium.

Daily concentration is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the document, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Daily loading is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the document, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

Department means the Michigan Department of Environmental Quality.

Detection Level means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

District Supervisor: The Plainwell District Supervisor of the Surface Water Quality Division is located at the Plainwell District Office-DEQ, Surface Water Quality Division, 1342 SR-89 W, Suite B, Plainwell, Michigan 49080-1915, telephone: 616-692-2120 (fax: 616-692-6969).

Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services mailing address is P.O. Box 30195, Lansing, Michigan 48909.

Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality mailing address is P.O. Box 30630, Lansing, Michigan 48909-8130.

PART II

Section A. Definitions

EC_{50} means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

Fecal coliform bacteria monthly is the geometric mean of the samples collected in a calendar month (or 30 consecutive days). The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the document, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

Fecal coliform bacteria 7-day is the geometric mean of the samples collected in any 7-day period. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the document, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Flow Proportioned sample is a composite sample with the sample volume proportional to the effluent flow.

Grab sample is a single sample taken at neither a set time nor flow.

IC_{25} means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurements for the test population.

Interference is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both:
1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

LC_{50} means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

Maximum acceptable toxicant concentration (MATC) means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

Monthly concentration is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days) divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. When required by the document, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Monthly loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined in the reporting month (or 30 consecutive days). The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. When required by the document, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMRs.

PART II

Section A. Definitions

National Pretreatment Standards are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

NOAEL means the highest tested dose or concentration of a substance that results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

Noncontact Cooling Water is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

Nondomestic user is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

Pretreatment is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

POTW is a publicly owned treatment works.

Quantification level means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the document, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

7-day loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days in a reporting month. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the document, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

Significant industrial user is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the documenttee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Tier I value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity data base.

Tier II value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity data base.

PART II

Section A. Definitions

Toxicity Reduction Evaluation (TRE) means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

Water Quality Standards means the Part 4 Water Quality Standards developed under Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

3-Portion Composite sample is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

24-Hour Composite sample is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

PART II

Section B. Monitoring Procedures

1. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants). For parameters not specified in the document or covered by the regulations, test procedures shall be submitted for approval to the Plainwell District Supervisor of the Surface Water Quality Division.

The discharger shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the discharger's laboratory Quality Control/Quality Assurance program.

3. Instrumentation

The discharger shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

4. Recording Results

For each measurement or sample taken pursuant to the requirements of this document, the discharger shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this document including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Michigan Department of Environmental Quality.

PART II

Section C. Reporting Requirements

1. Start-up Notification

If the discharger will not discharge during the first 60 days following the effective date of this document, the discharger shall notify the Plainwell District Supervisor of the Surface Water Quality Division within 14 days, and then 60 days prior to the commencement of the discharge.

2. Submittal Requirements for Self-Monitoring Data

Unless instructed on the effluent limits page to conduct "retained self-monitoring", the discharger shall submit self-monitoring data on the Environmental Protection Agency's Discharge Monitoring Report (DMR) forms (monthly summary information) and the Department's Daily Discharge Monitoring Report forms (daily information) to the PCS Unit, Surface Water Quality Division, Michigan Department of Environmental Quality, P.O. Box 30273, Lansing, Michigan, 48909-7773, for each calendar month of the authorized discharge period(s). The forms shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period(s).

Alternative Daily Discharge Monitoring Report formats may be used if they provide equivalent reporting details and are approved by the Plainwell District Supervisor of the Surface Water Quality Division. For information on electronic submittal of this information, contact the Plainwell District Supervisor.

3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the discharger shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Surface Water Quality Division, Michigan Department of Environmental Quality (in the case of mobile home parks, campgrounds, marinas and schools, to the staff of the Drinking Water and Radiological Protection Division -- Environmental Health, Michigan Department of Environmental Quality, or, in the case of hospitals, nursing homes and extended care facilities, to the staff of the Division of Health Facility Services -- Health Facility Evaluation Section, Michigan Department of Consumer and Industry Services). Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The discharger shall certify, in writing, to the Plainwell District Supervisor of the Surface Water Quality Division, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this document is based still accurately describes the discharge.

4. Additional Monitoring by Discharger

If the discharger monitors any pollutant at the location(s) designated herein more frequently than required by this document, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the Michigan Act or Rule 35 of the Mobile Home Park Commission Act (Act 96 of the Public Acts of 1987) for assurance of proper facility operation shall be submitted as required by the Department.

PART II

Section C. Reporting Requirements

5. Compliance Dates Notification

Within 14 days of every compliance date specified in this document, the discharger shall submit a written notification to the Plainwell District Supervisor of the Surface Water Quality Division indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the discharger to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the discharger accomplishes this, a separate written notification is not required.

6. Noncompliance Notification

Compliance with all requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days.

b. other reporting - The discharger shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the discharger becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

PART II

Section C. Reporting Requirements

7. Spill Notification

The discharger shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the Plainwell District Supervisor of the Surface Water Quality Division at 616-692-2120, , or if the notice is provided after regular working hours call the Department of Environmental Quality's 24-hour Emergency Response telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660); and within ten (10) days of the spill or loss, the discharger shall submit to the Plainwell District Supervisor of the Surface Water Quality Division a full written explanation as to the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation.

8. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the discharger) has occurred, the discharger who wishes to establish the affirmative defense of upset, shall notify the Plainwell District Supervisor of the Surface Water Quality Division by telephone within 24-hours of becoming aware of such conditions; and within five (5) days, provide in writing, the following information:

a. that an upset occurred and that the discharger can identify the specific cause(s) of the upset;

b. that the wastewater treatment facility was, at the time, being properly operated; and

c. that the discharger has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with this document.

In any enforcement proceedings, the discharger, seeking to establish the occurrence of an upset, has the burden of proof.

9. Bypass Prohibition and Notification

a. Bypass Prohibition - Bypass or diversion of treatment facilities for groundwater remediations is prohibited. For discharges other than groundwater remediations, bypass is prohibited unless:

1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and

3) the discharger submitted notices as required under 9.b. or 9.c. below.

b. Notice of Anticipated Bypass - If the discharger knows in advance of the need for a bypass, it shall submit prior notice to the Plainwell District Supervisor of the Surface Water Quality Division, if possible at least ten days before the date of the bypass, and provide information about the anticipated bypass as required by the Plainwell District Supervisor. The Plainwell District Supervisor may approve an anticipated bypass, after considering its adverse effects, if it will meet the three conditions listed in 9.a. above.

c. Notice of Unanticipated Bypass - The discharger shall submit notice to the Plainwell District Supervisor of the Surface Water Quality Division of an unanticipated bypass by telephone at 616-692-2120 (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the discharger becomes aware of the circumstances.

PART II

Section C. Reporting Requirements

d. Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Plainwell District Supervisor of the Surface Water Quality Division, and at additional times as directed by the Plainwell District Supervisor. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Plainwell District Supervisor.

e. Bypass Not Exceeding Limitations - The discharger may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the discharger of any notification responsibilities under Part II.C.10. of this document.

f. Definitions

1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

10. Notification of Changes in Discharge

The discharger shall notify the Plainwell District Supervisor of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, which were not acknowledged in the application or listed in the application at less than detectable levels; 2) detectable levels of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information; or 3) any chemical at levels greater than five times the average level reported in the complete application submitted on March 12, 1998. Any other monitoring results obtained as a requirement of this document shall be reported in accordance with the compliance schedules.

11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Plainwell District Supervisor of the Surface Water Quality Division by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this document; 2) the action or activity will not result in violations of the effluent limitations specified in this document; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the document may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the discharger is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

APPENDIX P

PHOTO DOCUMENTATION

Photo #1: Southern portion of floodplain after completing clearing.

Photo #2: Initial surveying of on-site lagoons.

Photo #3: Initial surveying of on-site lagoons.

Photo #4: Sampling of haul roads prior to excavation activities.

Photo #5: Perimeter air sampling, near local residence.

Photo #6: Perimeter, air sampling area, near Alcott Street.

Photo #7: Stream sampling for TSS, turbidity and PCBs.

Photo #8: Stream sampling for TSS, turbidity, and PCBs.

Photo #9: Downstream sediment barrier.

Photo #10: Silt fence installed between excavation and stream.

Photo #11: Mobile decon station which was relocated as excavation progressed.

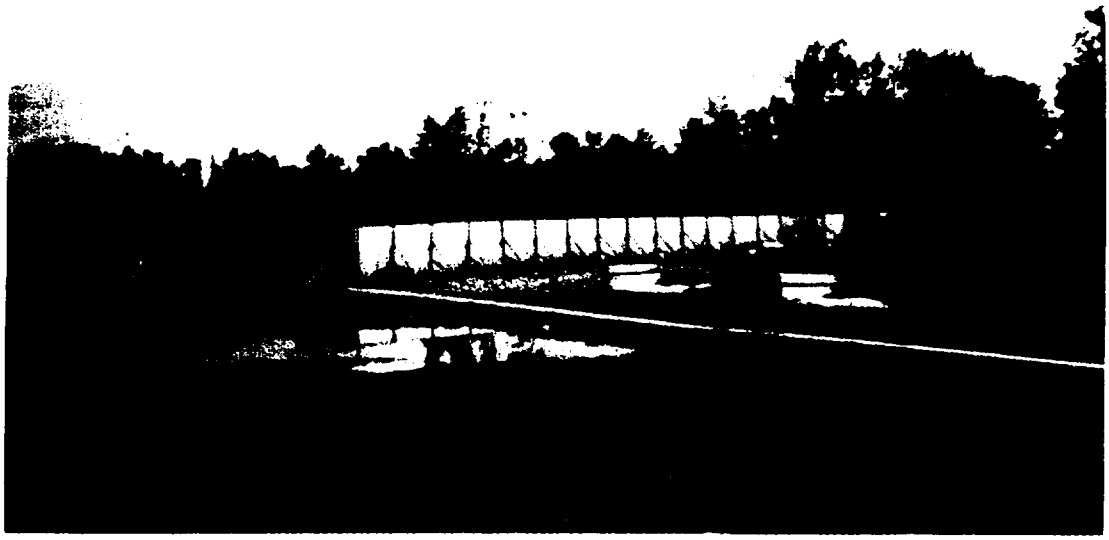


Photo #12: Construction of Modutanks.

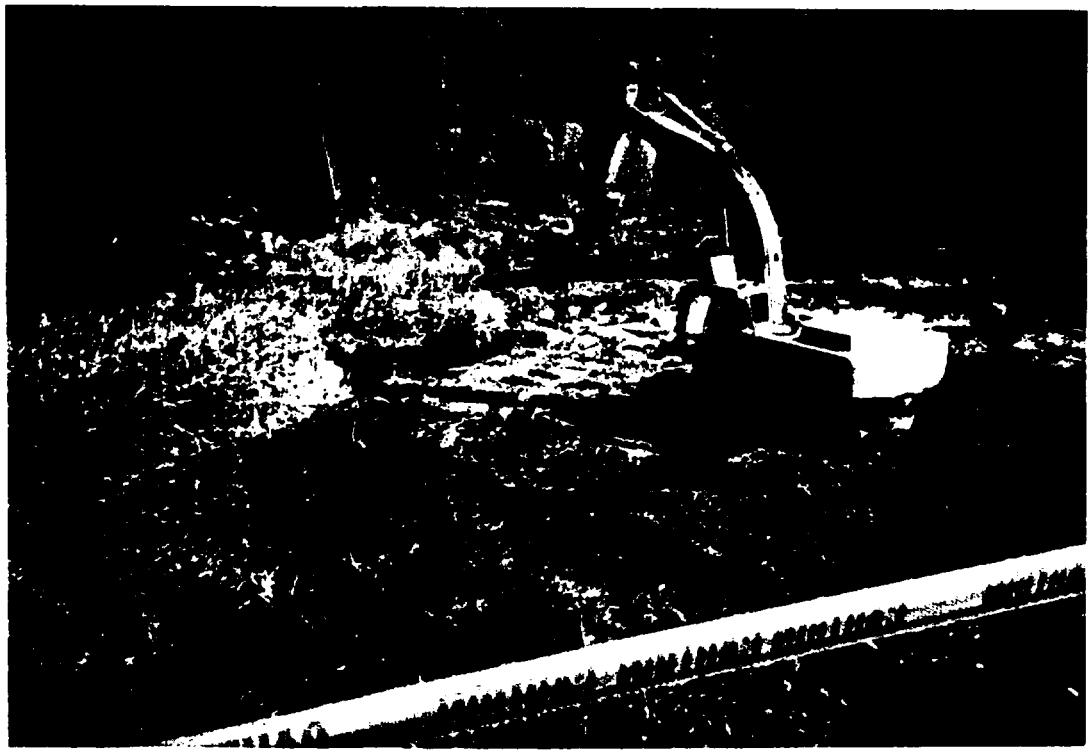


Photo #13: Excavation of PCB-contaminated sediments.

Photo #14: Excavation of PCB-contaminated sediments.

Photo #15: Excavation of PCB-contaminated sediments.

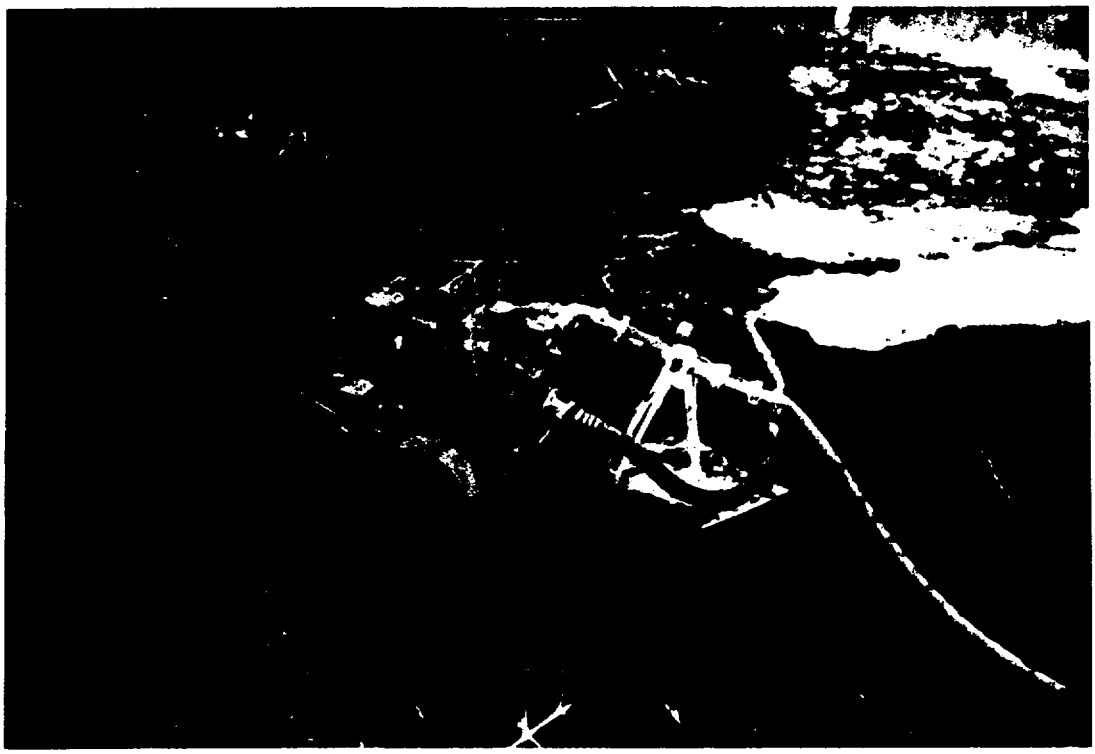


Photo #16: Water being pumped from excavation to WWTP.

Photo #17: Water being pumped from excavation to WWTP.

Photo #18: Stream diversion #1.

Photo #19: Stream diversion #2.

Photo #20: Stream diversion #3.

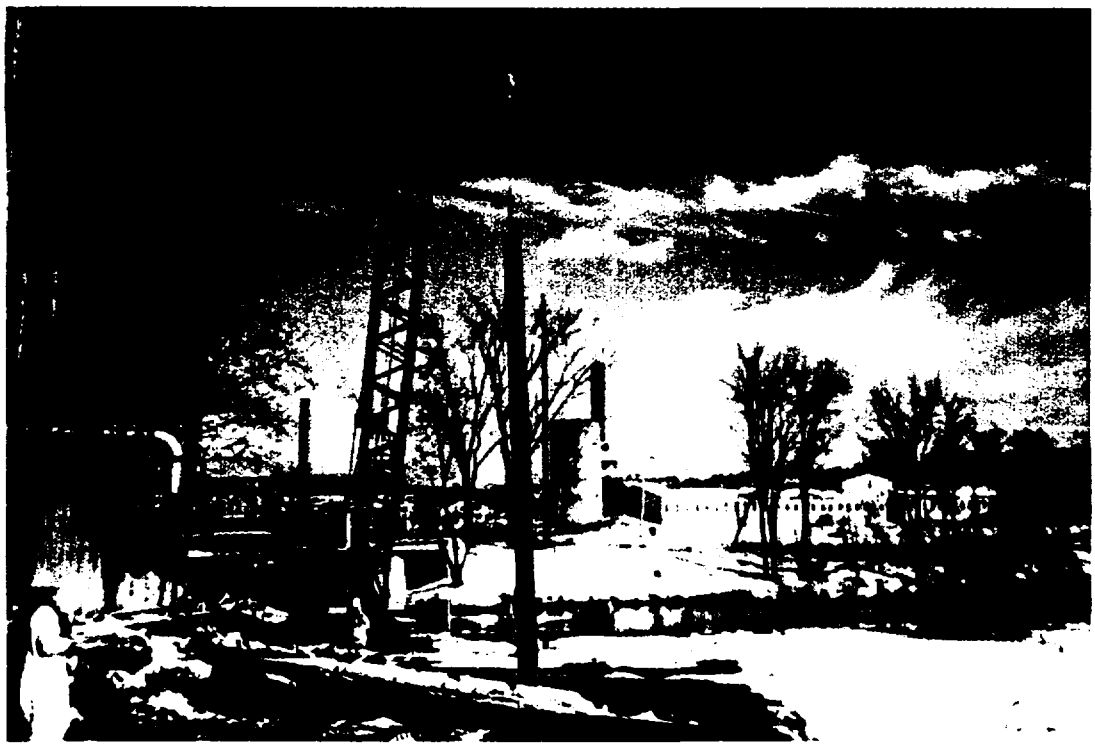


Photo #21: Sheetpile being installed for stream diversion #3.

Photo #22: Sheetpile being utilized for stream diversion #3.

Photo #23: Locating a sample node with global positioning system.

Photo #24: Recording elevation of sample node.

Photo #25: Excavation confirmation sampling.

Photo #26: Backfilling of floodplain.

Photo #27: Backfilling of floodplain.

Photo #28: Backfilling of floodplain.

Photo #29: Landfill operations.

Photo #30: Landfill operations.

Photo #31: Landfill operations.

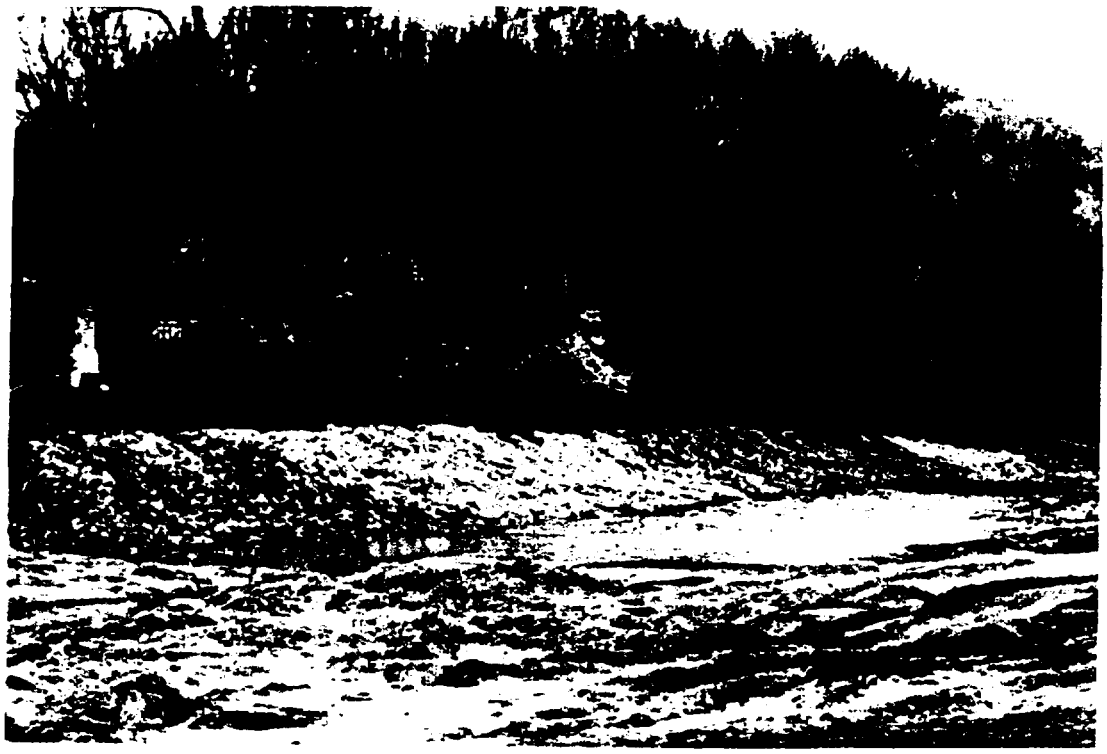


Photo #32: Armoring of creek side slopes.

Photo #33: Armoring of creek bottom, near Alcott Street dam.

Photo #34: Installation of silt fence, after achieving final grade.

Photo #35: Placement of erosion control blankets on the side slopes.

Photo #36: Seeding and mulching of floodplain.

Photo #37: Cattail plantings.

Photo #38: Initial stages of revegetation.

Photo #39: Armoring of drainage ditches.

Photo #40: Restoration of floodplain, looking north.

Photo #41: Floodplain restoration in later stages of development.

Photo #42: Reagent stockpiled for use in stabilizing lagoons.

Photo #43: Stabilization of lagoons.

Photo #44: Stabilization of lagoons.

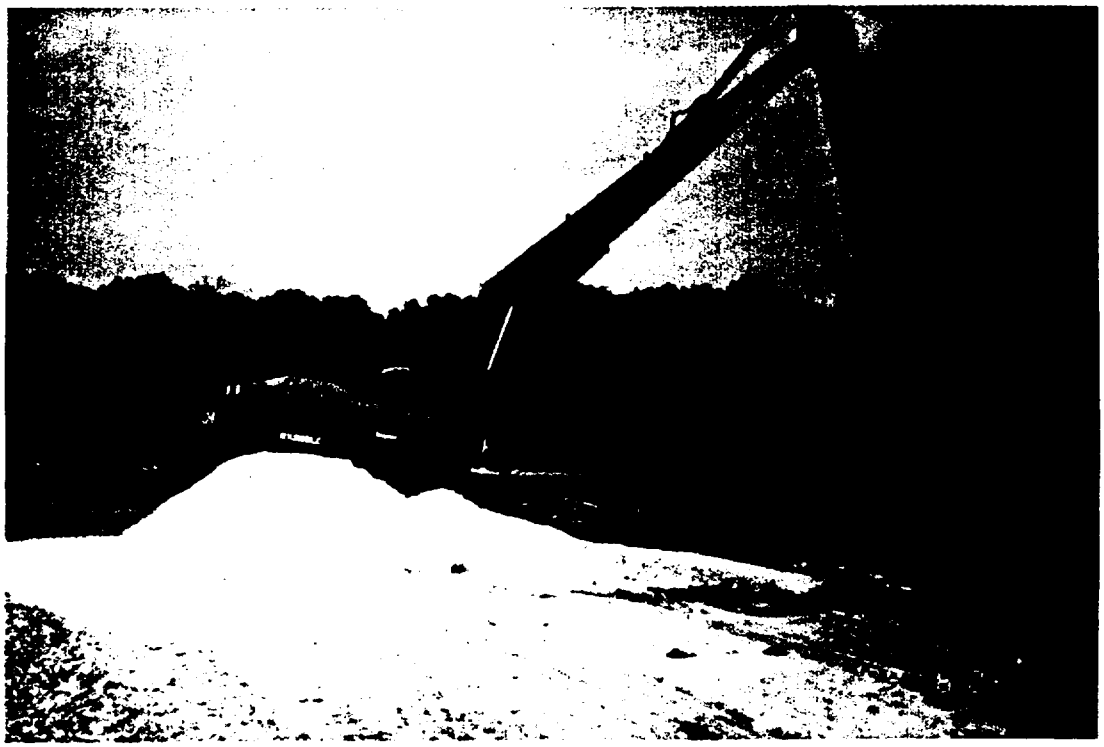


Photo #45: Stabilization of lagoons.

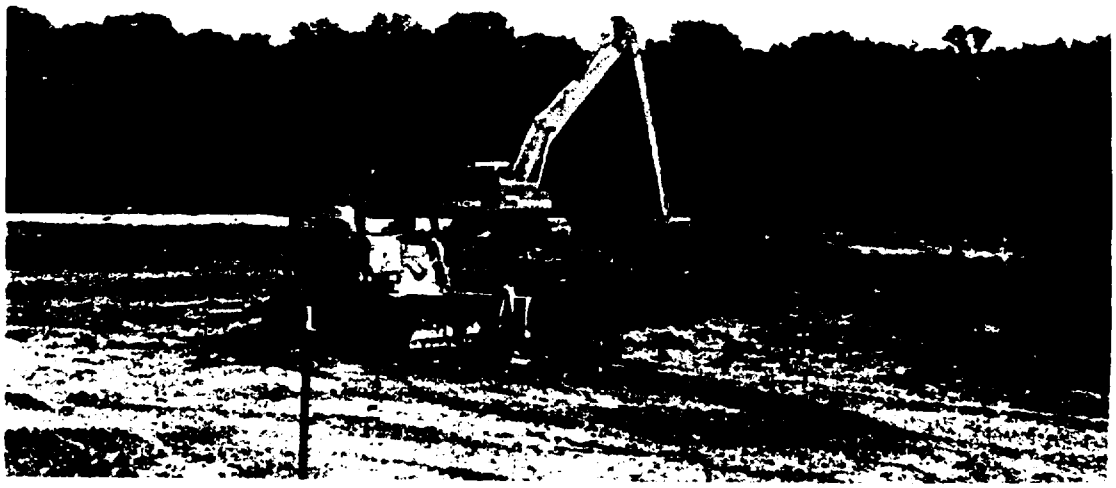


Photo #46: Preparation of lagoon subgrade.

Photo #47: Preparation of lagoon subgrade.

Photo #48: Installation of new 24-inch corrugated metal pipe.

Photo #49: Placement of common fill over lagoons.

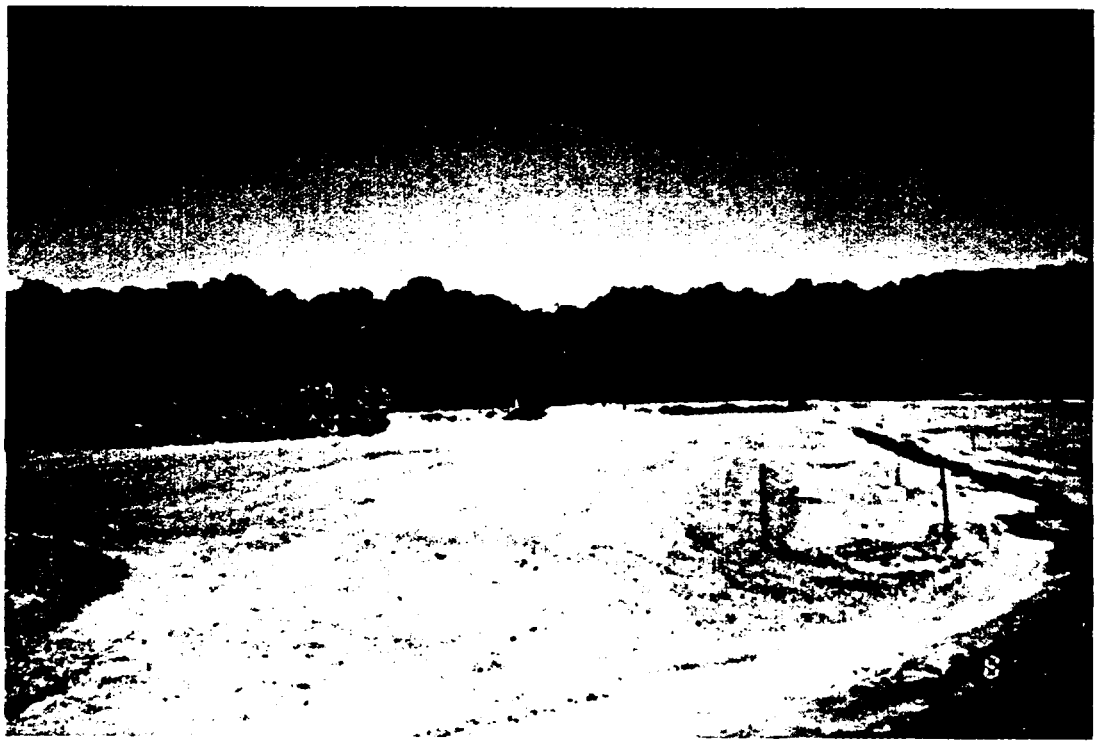


Photo #50: Placement of common fill over lagoons.

Photo #51: Placement of common fill over lagoons.

Photo #52: Armoring of perimeter drainage ditch.

Photo #53: Armoring of perimeter drainage ditch.

Photo #54: Seeding and mulching of lagoons.

Photo #55: Aerial photo of on-site lagoons.

APPENDIX Q

RESTORATION PLAN

DRAFT

PORTAGE CREEK FLOODPLAIN RESTORATION PLAN
Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site
Kalamazoo, Michigan

INTRODUCTION

The selected remedial alternative for the Allied Paper Inc./Portage Creek/Kalamazoo River Superfund Site includes the excavation of PCB contaminated sediments from the Portage Creek and its floodplain. Following the excavation of the floodplain the area will be restored. This consists of returning the floodplain to its original elevation using backfill material composed of sand with varying amounts of stone and fine materials. The floodplain area and adjacent slopes will be revegetated. The stream channel of Portage Creek will be reestablished and sections where the stream meanders will be stabilized.

This report provides the U.S. Army Corps of Engineers Omaha District (USACE) with recommendations for planting the floodplain area and stream stabilization in areas of meanders where there is the greatest potential for stream channel and bank erosion. A copy of the floodplain restoration site plan is attached.

The following considerations were used to develop this plan:

1. Rapid revegetation is necessary to minimize the erosion of excavated and backfilled floodplain areas as well as areas of steep slopes adjacent to floodplains.

2. Plantings would consist mostly of readily available seed sources and onsite vegetation.

3. Stream bank stabilization would rely on onsite materials, including tree trunks and boulders.

4. The site floodplain restoration plan will identify areas to be seeded and planted w woody species, and notes that include stream bank stabilization methods, planting specifications, etc.

5. There has been no analysis of the floodplain processes (i.e., stream flow hydraulics and stream flow characteristics) of the Portage Creek to determine the suitability of the selected restoration alternative and backfill materials for stabilization of substrate, stream channels, and adjacent areas of steep slope.

6. There has been no analysis of the backfill material for particle size, nutrients, pH, and other parameters that may influence the establishment of vegetation.

The goal of this report is to provide guidelines for 1) establishing vegetation within the wetland/floodplain area to stabilize soils and initiate the conversion of the site to functional wetland, and 2) stabilization of the stream channel, focussing on meanders where stream banks may be most susceptible to erosion.

General Observations of Floodplain/Wetland Areas

At the time of the site visit (February 12, 1999) the majority of the floodplain had been cleared of vegetation and disturbed either from excavation activities or stream relocation activities. However, remnants of the floodplain that were relatively undisturbed remained and were assessed to provide information on site conditions.

The following plant species were identified in the floodplain area during the February 12, 1999 site visit:

Common Name	Scientific Name
Purple loosestrife	*Lythrum salicaria*
Cattail	*Typha spp.*
Jewelweed	*Impatiens capensis*
Hibiscus	*Hibiscus spp.*
Stinging nettle	
Willow	*Salix spp.*
Silky dogwood	*Cornus amomum*

Purple loosestrife was the dominant species in several areas, particularly at the north end of the site. Cattail was also a dominant species in some areas. Willow was established in several small areas in the floodplain.

Given the time of the site visit, it is likely that other plant species are present in the floodplain. The remains of sedge species were found, but could not be identified due to the highly degraded nature of these samples.

The undisturbed floodplain soils on the site consist of the residual paper pulp waste and soils contaminated with PCB. As such, these "soils" are not indicative of the historic floodplain soils found in the Portage Creek area. Sections of Portage Creek directly upstream and downstream of the site are characterized by steep slopes and a channelized stream. The creek section immediately downstream from the site is a concrete channel. Further upstream the creek is dammed to create a large pond (Monarch Mill Pond). To summarize, the character of the Portage Creek floodplain in this area has been significantly altered from anthropogenic influences.

Direct evidence of wetland hydrologic conditions within the floodplain area on the site was observed during the site visit. Most of the floodplain was either saturated to the soil surface or contained standing water.

The substrate in the stream channel consisted of a mixture of areas of silt/muck (depositional) and sorted gravel and stone (erosional).

PLANTING DESIGN

The backfill material being placed in the floodplain is composed of sand with varying amounts of stone and fine materials. This is not the most desirable substrate for plant growth. However, it is expected that with the addition of a slow release fertilizer when the site is planted, and anticipated inputs from adjacent areas and flooding during storm events and snow melt, that a more than adequate nutrient supply will be available for plant growth. Note that there has been no testing of the backfill material for plant nutrients or other parameters.

The hydrologic regime of the floodplain area following restoration is uncertain. Therefore, a seed mix for floodplain areas should include plant species that 1) rapidly germinate to stabilize soils, and 2) tolerate different hydrologic regimes. A list of species that can provide these capabilities is provided below.

There is a need for rapid revegetation of the restored floodplain to stabilize soils and minimize erosion on the site. In addition, a goal of the restoration plan is to establish a vegetation co[illegible] that provides diversity (preferably native species), habitat, and food chain support. Several sources of vegetation for the site are proposed:

1. There will be some natural revegetation from the transport of seed from upgradient wetland areas (floodplains) during storm events, and other sources (windblown seed, seed transported by birds and other wildlife).

2. Woody species can be planted on portions of the floodplain [redacted] Stems can be cut and placed in the ground. The cutting would be placed in small areas of concentrated plantings within the floodplain, and in areas of streambank stabilization. Alternatively, live cuttings can be purchased from nurseries in the region.

3. Seed mixes to provide both temporary and permanent cover can be purchased and broadcast on the site.

4. [redacted]

The following provides recommendations for planting the floodplain areas at the site. Refer to the attached restoration plan for locations and other details.

1. Seeding

~~Temporary Seeding~~

~~As soon as possible after completion of grading backfilled areas, apply annual ryegrass (*Lolium spp.*) at a rate of 30 pounds per acre. Apply seed mixture uniformly with power-driven seeders, mechanical cyclone hand seeders, or hydroseeding equipment. The slurry for the hydroseeder should contain seed and fertilizer only.~~

~~Fertilizer should be applied either with the seed mixture or concurrently with seeding at the rate of 300 pounds per acre. The fertilizer should be a slow-release fertilizer that releases nutrients under saturated soil conditions approximately over the time frame the manufacturer specifies. OSMOCOTE 18-6-12 is an example of a good slow-release fertilizer.~~

~~The seed should be disced 1 inch into the soil in flood-prone areas.~~

Permanent Seeding - Refer to flood plain restoration site plan for species composition.

~~As soon as possible after completion of grading backfilled areas and, if necessary, discing of surface to a depth of 3 to 5 inches, apply the following seed mixture at a rate of 15 pounds per acre.~~

~~Redtop~~	~~*Agrostis gigantea*~~
~~Red fescue~~	~~*Festuca rubra*~~
~~Canada bluegrass~~	~~*Poa compressa*~~
~~Giant bur reed~~	~~*Sparganium eurycarpum*~~
~~Deertongue~~	~~*Panicum clandestinum*~~
~~Sedges~~	~~*Carex spp.*~~
~~Bulrush~~	~~*Scirpus spp.*~~
~~Smartweeds~~	~~*Polygonum spp.*~~

The seed should be planted by June 1 to maximize the potential for germination and growth.

The species composition of the seed mix and rates may vary depending on the availability of seed for each of the listed species.

Apply the seed mixture uniformly with power-drawn seeders, mechanical cyclone hand seed or hydroseeding equipment. The slurry for the hydroseeder should contain seed and fertilizer only.

Fertilizer should be applied either with the seed mixture or concurrently with seeding at the rate of 300 pounds per acre. The fertilizer should be a slow release fertilizer that release nutrients under saturated soil conditions approximately over the time frame the manufacturer specifies. OSMOCOTE 18-6-12 is an example of a good slow release fertilizer. If fertilizer was already applied for temporary seeding then no additional fertilizer may be necessary.

The seed and fertilizer should be disced into the soil (to a depth of less than one inch) or pressed into the soil in the entire flood prone area.

While mulching of planted areas is recommended, the location of the restoration site in a floodplain area and the potential for flooding during storm events may discourage the placement of mulch and/or erosion control structures (e.g., silt fence). However, a general observation made during site investigations and remedial actions at the site is that the Portage Creek does overflow its banks during storm events. Therefore, the placement of a mulch may be warranted. Mulching shall consist of the placement of clean, weed free, unrotted straw at the rate of 1.5 tons per acre.

2. Other Plant Propagules

Two species of wetland plants are found on the Allied Paper site outside of the floodplain area and areas of remediation. ~~These species can be harvested and planted in the floodplain as follows~~:

Willow (*Salix spp.*) plant as live, woody cuttings tamped into the ground

~~Cattail (*Typha spp.*) excavated from on-site location and plant dormant rhizomes~~

Other recommended shrub species to plant as bare root seedlings include, silky dogwood (*Cornus amomum*), elderberry (*Sambucus canadensis*), and alder (*Alnus spp.*).

[redacted]

[redacted]

and shrub species

Plant the willow cuttings on 3-foot centers in up to ten 2,000 square foot areas within the floodplain but outside the stream channel. In addition, plant willow cuttings in the streambank stabilization areas at a similar spacing. and shrubs

3. Stream Stabilization

The stream channel of Portage Creek will be reestablished following the completion of excavation and backfilling. The reestablished meanders in the stream are more susceptible to erosion than other straight sections.

Following the completion of floodplain backfilling and stream construction stream meanders should be stabilized on the outer sides of stream bends with a combination of logs, tree stumps (rootwad) and boulders and/or "tree revetments", anchored and imbedded into the substrate. Wire cables may also be required to anchor these structures in place. Also, rocks and large pieces of clean construction rubble (cement) may be useful in these areas. In order to determine whether more substantial "engineered" stream restoration measures may need to be implemented, a hydrologic/hydraulic assessment of this reach of the stream channel may be warranted.

Live cuttings of locally available plants [redacted] should be planted among structure to stabilize the upper bank and ensure a regenerative source of streambank vegetation. Suggested species for plantings include willow (*Salix spp.*) and dogwood (*Cornus spp.*). Plant as live cuttings from plants on site or purchased from local sources. Refer to *Stream Corridor Restoration: Principles, Processes, and Practices* (USDA. 1998) for more specific information. Copies of a portion of this report are attached.

These streambank stabilization structures will serve two purposes: 1) bank stabilization, and 2) establishment of floodplain (aquatic and wetland) habitat.

NOTES

1 Seeding

[redacted]

As soon as possible after completion of grading backfilled areas, apply annual ryegrass (Lolium multiflorum) at a rate of 20 pounds per acre. Apply the seed mixture uniformly with power-drawn seeders, mechanical cyclone hand seeders, or hydroseeding equipment.

Fertilizer should be applied either with the seed mixture or concurrently with seeding at the rate of 300 pounds per acre. The fertilizer should be a slow release fertilizer that release nutrients under saturated soil conditions approximately over the time frame the manufacturer specifies. OSMOCOTE 18-6-12 is an example of a good slow release fertilizer.

The seed should be either disced into the soil (to a depth of less than 1 inch) or pressed into the soil in the entire flood-prone area.

Permanent Seeding

As soon as possible after completion of grading backfilled areas and, if necessary, discing of surface to a depth of 1 to 3 inches, apply the following seed mixture at a rate of 15 pounds per acre. This mixture allows for variation in moisture and light conditions.

Agrostis gigantea	redtop
Agrostis stolonifera	creeping bentgrass
Alopecurus arundinaceus	meadow foxtail
Lolium multiflorum	annual ryegrass
Panicum clandestinum	deertongue
Poa trivialis	rough bluegrass

The seed should be planted by June 1 to maximize the potential for germination and growth.

The species composition of the seed mix and rates may vary depending on the availability of seed for each of the listed species. If the annual ryegrass has been applied as a temporary cover then it can be eliminated from the seed mix unless further soil stabilization is determined to be necessary.

Supplement this seed mix with a wetland diversity seed mix at one pound per acre. Suggested species include:

Leersia oryzoides	rice cutgrass
Glyceria canadensis	Canada mannagrass
Sparganium eurycarpum	giant bur reed
Carex spp.	sedges
Scirpus spp.	bulrush
Polygonum spp.	smartweeds

The species selection will be based on availability and cost. This should be approved by the USACE.

Apply the seed mixture uniformly with power-drawn seeders, mechanical cyclone hand seeders, or hydroseeding equipment.

Fertilizer should be applied either with the seed mixture or concurrently with seeding at the rate of 300 pounds per acre. The fertilizer should be a slow release fertilizer that release nutrients under saturated soil conditions approximately over the time frame the manufacturer specifies. OSMOCOTE 18-6-12 is an example of a good slow release fertilizer. If fertilizer was already applied for temporary seeding then no additional fertilizer may be necessary.

The seed and fertilizer should be either disced into the soil (to a depth of less than one inch) or pressed into the soil in the entire flood-prone area.

[redacted] mulching of planted areas is recommended. [redacted]

2 Other Plant Propagules

Two species of wetland plants are found on the Allied Paper site outside of the floodplain area and areas of remediation. [redacted]

Willow (Salix spp.) plant as live, woody cuttings tamped into the ground. [redacted]

Other recommended shrub species to plant as bare root seedlings or cuttings include silky dogwood (Cornus amomum), red-osier dogwood (Cornus sericea) and elderberry (Sambucus canadensis).

Both rhizomes (plantings) and seed (litter) can be collected from the cattail wetland area to plant in the floodplain area. If this recommendation is acted on, vegetation should be removed by hand and shovel, and collected in a grid pattern (i.e. 5 square foot grids) so that remaining plants will fill in the denuded area. Care should be taken to not disturb more than 20 area. The same approach should be followed if permission is obtained property owners with similar emergent wetland areas upgradient from the site.

Plant the cattail rhizomes on 3-foot centers in the lower areas of the floodplain (but in less than one foot of water) outside of the stream channel. The size of the area(s) planted will depend on the number of individuals harvested. One thousand to five thousand square feet is a suggested minimum plot size to plant cattails.

Plant the woody bare root plants and cuttings on 3 foot centers in ten 2,000 square foot areas within the floodplain but outside the stream channel. In addition, plant woody species in the streambank stabilization areas at a similar spacing. It is estimated that 3,500 plants of this wetland needed for this effort.

3 Stream Stabilization

The stream channel of Portage Creek will be reestablished following the completion of excavation and backfilling. The reestablished meanders in the stream are more susceptible to erosion than other straight sections.

Following the completion of floodplain backfilling and stream construction stream meanders should be stabilized on the outer sides of stream bends with a combination of logs, tree stumps (rootwad) and boulders and/or ?tree revetments?, anchored and imbedded into the substrate. Wire cables may also be required to anchor these structures in place. Also, rocks and large pieces of clean construction rubble (cement) may be useful in these areas. In order to determine whether more substantial ?engineered? stream restoration measures may need to be implemented, a hydrologic/hydraulic assessment of this reach of the stream channel may be warranted.

Live cuttings of locally available plants [redacted] should be planted among the structure to stabilize the upper bank and ensure a regenerative source of streambank vegetation. Suggested species for plantings include willow (Salix spp.) and dogwood (Cornus spp.). Plant as live cuttings from plants on site or purchased from local sources (see Planting Design section above). Refer to Stream Corridor Restoration: Principles, Processes, and Practices (USDA, 1998) for more specific information. Copies of a portion of this report are attached.

These streambank stabilization structures will serve two purposes: 1) bank stabilization, and 2) establishment of floodplain (aquatic and wetland) habitat.

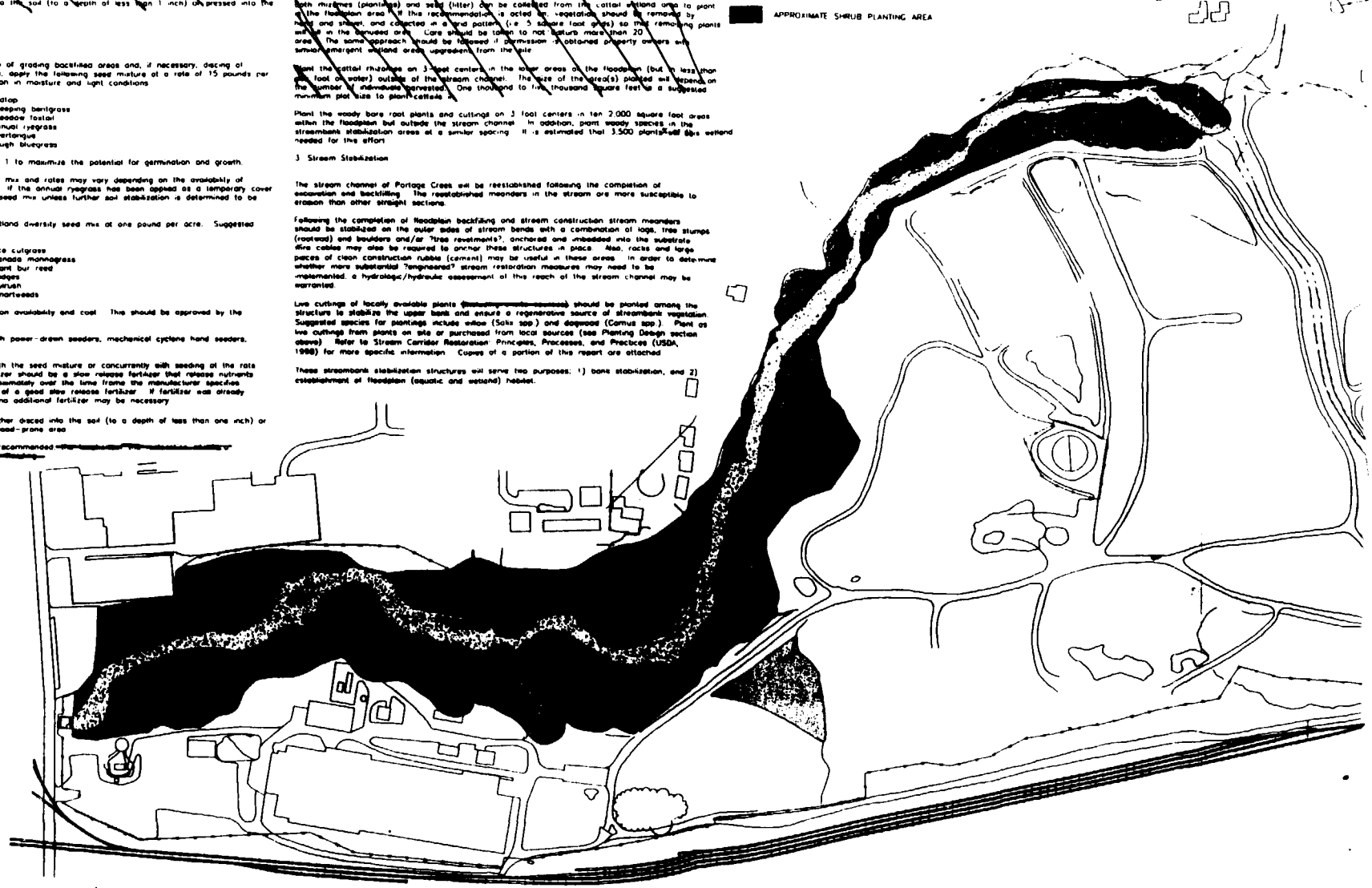
LEGEND

FLOODPLAIN/WETLAND RESTORATION AREA

STREAM RESTORATION AREA

ON-SITE SOURCE OF EMERGENT VEGETATION

APPROXIMATE SHRUB PLANTING AREA



OMAHA DISTRICT RAPID

KALAMAZOO MICHIGAN

WESTON

SCALE 1"=

FILE NO G:\ACADPROJ\03896151\CIVIL\15012000.DWG By: Gressel 03/03/1999 11:42am

PLOTTED PLT SC

STREAM CORRIDOR RESTORATION

Principles, Processes, and Practices

AN INTERAGENCY PARTNERSHIP

There's more to a stream than the rushing or meandering water. A stream corridor, or stream valley, is a complex and valuable ecosystem which includes the land, plants, animals, and network of streams within it. Recognition of the value of stream corridors has come with the understanding of what has been lost through uninformed or misguided actions on many streams and the watersheds that nourish them.

The U.S. has 3.5 million miles of rivers. The 1992 National Water Quality Inventory of 642,881 miles of these rivers stated that only 56 percent fully supported multiple uses, including drinking water supply, fish and wildlife habitat, recreation, and agriculture, as well as flood prevention and erosion control. In the remaining 44 percent of stream miles inventoried, sedimentation and excess nutrients were the most significant causes of degradation. Sediment problems result from soil erosion from watersheds and streambanks.

Today, interest in restoring stream corridors is expanding nationally and internationally, as indicated by increasing numbers of case studies, published papers, technology exchanges, research projects, symposia, etc. Stream corridors are increasingly recognized as critical ecosystems supporting interdependent uses and values.

A preview of this publication is now available here!

Click here to continue

typical streambank use for these materials is in the construction of vegetated geogrids, which are similar to brush layers except that the fill soils between the layers of cuttings are encased in fabric, allowing the bank to be constructed of successive "lifts" of soil, alternating with brush layers. This approach allows reconstruction of a bank and provides considerable erosion resistance (see Green River case study). Natural fibers are also used in "fiber-schines," which are sold specifically for streambank applications. These are cylindrical fiber bundles that can be staked to a bank with cuttings or rooted plants inserted through or into the material.

Vegetated plastic geogrids and other nondegradable materials can also be used where geotechnical problems require drainage or additional strength.

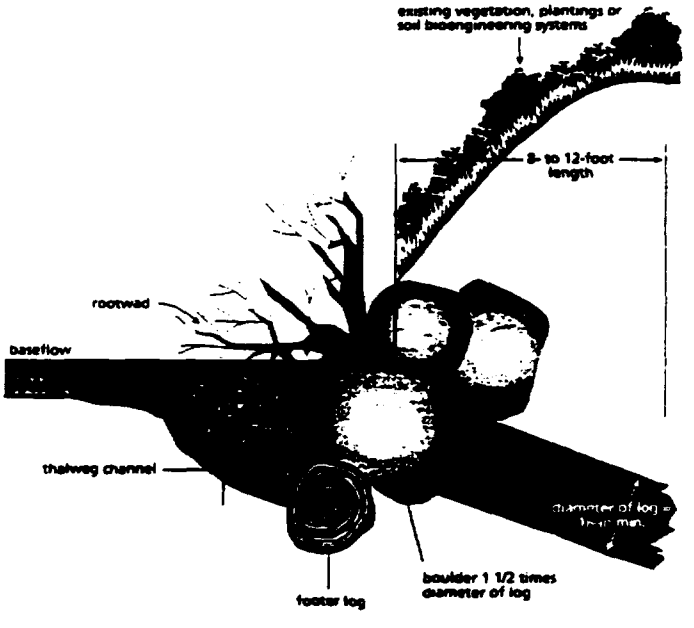


Figure 8.43: Revetment system.
Details of rootwad and boulder technique.
Source: Chapter 16 Engineering Handbook, NRCS 1997.

Integrated Systems

A major concern with the use of structural approaches to streambank stabilization is the lack of vegetation in the zone directly adjacent to the water. Despite a long-standing concern that vegetation destabilizes stone revetments, there has been little supporting evidence and even some evidence to the contrary (Shields 1991). Assuming that loss of conveyance is accounted for, the addition of vegetation to structures should be considered. This can involve placement of cuttings during construction, or insertion of cuttings and poles between stones on existing structures. Timber cribwalls may also be constructed with cuttings or rooted plants extending through the timbers from the backfill soils.

Trees and Logs

Tree revetments are made from whole tree trunks laid parallel to the bank, and cabled to piles or deadman anchors. Eastern red cedar (*Juniperus virginiana*) and other coniferous trees are used on small streams, where their springy branches provide interference to flow and trap sediment. The principal objective to these systems is the use of large amounts of cable and the potential for trees to be dislodged and cause downstream damage.

Some projects have successfully used large trees in conjunction with stone to provide bank protection as well as improved aquatic habitat (see case study). Large logs with intact root wads are placed in trenches cut into the bank, such that the root wads extend beyond the bank face at the toe (**Figure 8.43**). The logs are over-

lapped and/or braced with stone to ensure stability, and the protruding rootwads effectively reduce flow velocities at the toe and over a range of flow elevations (**Figure 8.44**). A major advantage of this approach is that it reestablishes one of the natural roles of large woody debris in streams by creating a dynamic near-bank environment that traps organic material and provides colonization substrates for invertebrates and refuge habitats for fish. The logs eventually rot, resulting in a more natural bank. The revetment stabilizes the bank until woody vegetation has matured, at which time the channel can return to a more natural pattern.

In most cases, bank stabilization projects use combinations of the techniques described above in an integrated approach. Toe protection often requires the use of stone, but amounts can be greatly reduced if large logs can also be used. Likewise, stone blankets on the bank face can be replaced with geogrids or supplemented with interstitial plantings. Most upper bank areas can usually be stabilized using vegetation alone, although anchoring systems might be required. The Green River bank restoration case study illustrates one successful application of an integrated approach on a moderate-sized river in Washington State.

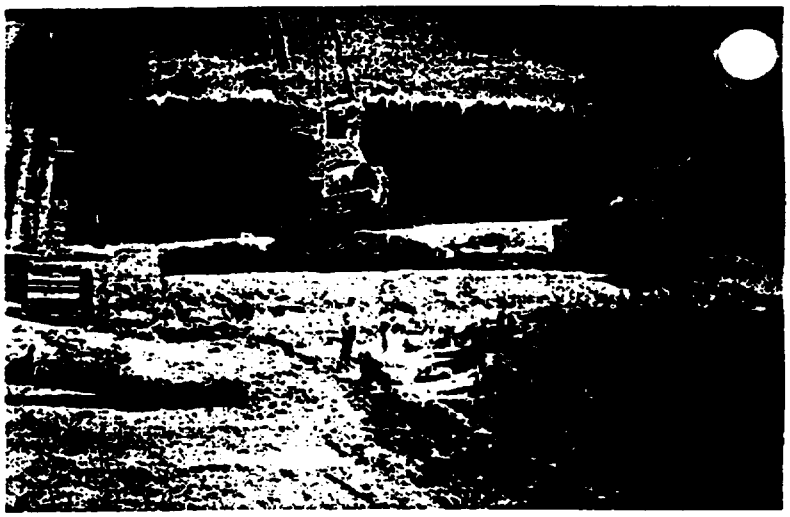


Figure 8.44: Installation of logs with intact root wads.
An advantage to using tree revetments is the creation of habitat for invertebrates and fish along the streambank.

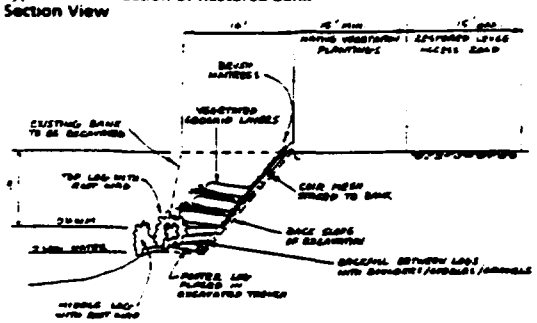
Green River Bank Restoration Initiative, King County, Washington

The King County, Washington, Surface Water Management Division initiated a bank restoration initiative in 1994 that illustrates a variety of project objectives and soil bioengineering approaches (**Figure 8.45**). The project involved stabilization of the bank of the Green River along a 500-foot section of a meander bend that was rapidly migrating into the adjacent farm field. The project objectives included improvement of fish and wildlife habitat, particularly for salmonids.

Figure 8.45: Construction details.
Source: King County Surface Water Management Division.

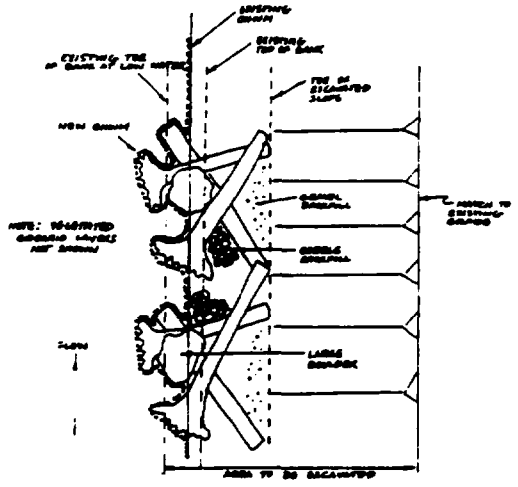
(a)

Typical Cross-Section of Restored Bank
Section View



(b)

Typical Detail – Log Pattern
Plan View



Site investigations included surveys of stream cross sections, velocity measurements at two discharge levels, soil characterizations, and assessment of fish use of existing habitat features in the area. The streambank was vertical, 5 to 10 feet high, and composed of silty-clay-loam alluvium with gravel lenses. Flow velocities were 2 to 5 fps for flows of 200 and 550 cfs. Fish were primarily observed in areas of low velocities and/or near woody debris, and along the channel margins.

In August, large woody debris was installed along the toe of the bank. The logs were cedar and fir, 25 feet long and 28 to 36 inches in diameter, with root wads 6 to 8 feet in diameter. The logs were placed in trenches cut 15 feet back into the bank so that the root wads extended into the channel, and large (3- to 4-foot diameter) boulders were placed among the logs at the toe. Log and boulder placement was designed to interlock and brace the logs and prevent movement. The project used approximately 10 logs and 20 boulders per 100 lineal feet of bank. In September, vegetated geogrids were installed above the toe zone to stabilize the high bank (**Figure 8.46**). The project was completed with installation of a variety of plants, including container-grown conifers and understory species, in a minimum 25-foot buffer along the top of the bank.

Within 2 months of completion, the site was subjected to three high flows, including an 8,430-cfs event in December 1994. Measured velocities along the bank were less than 2 fps at the surface and less than 1 fps 2 feet below the surface, indicating the effectiveness of the root wads in moderating flow velocities (**Figure 8.47**). Some surface erosion and washout of plants along the top bank occurred, and a subsequent event caused minor damage to the geogrid at one location. The maintenance repairs consisted of replanting and placement of additional logs to halt undermining of the geogrid. The 1995 growing season produced dramatic growth of the willow cuttings in the geogrid, although many of the planted trees in the overbank zone died (**Figure 8.48**). Initial observations have documented extensive fish use of the slow-water habitats among the root wads at the toe of the bank, and in scour holes created by flows deflected toward the channel bottom.

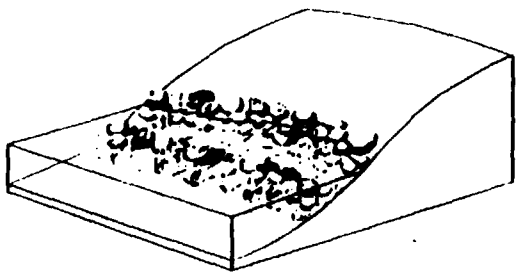
Figure 8.46: Partially installed vegetated geogrid.
Installed above the toe to stabilize high bank.

The site continues to be carefully monitored, and the effectiveness of the approach has led to the implementation of similar designs elsewhere in the region. The project designers have concluded that future projects of this type should use small plants rather than large rooted material in the overbank zone to reduce costs, improve survival, and minimize damage due to equipment access for maintenance or repair. Based on their observations of fish response along the restored bank and in nearby stream reaches, they also recommend that future projects incorporate a greater variety of woody debris, including brushy material and tree tops, along the toe and lower bank.

Figure 8.47: Completed system.
Note calm water along bankline during high flow.

Figure 8.48: Completed system after one year.
Note dramatic willow growth from vegetated geogrid.

STONE TOE PROTECTION



A ridge of quarried rock or stream cobble placed at the toe of the streambank as an armor to deflect flow from the bank, stabilize the slope and promote sediment deposition.

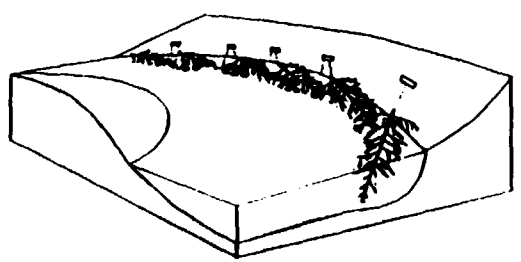
Applications and Effectiveness

- Should be used on streams where banks are being undermined by toe scour, and where vegetation cannot be used
- Stone prevents removal of the failed streambank material that collects at the toe, allows revegetation and stabilizes the streambank.
- Should, where appropriate, be used with soil bioengineering systems and vegetative plantings to stabilize the upper bank and ensure a regenerated source of streamside vegetation.
- Can be placed with minimal disturbance to existing slope, habitat, and vegetation

For More Information

- Consult the following references: Nos. 10, 21, 56, 67, 77, 81.

TREE REVETMENTS



A row of interconnected trees attached to the toe of the streambank or to deadmen in the streambank to reduce flow velocities along eroding streambanks, trap sediment, and provide a substrate for plant establishment and erosion control.

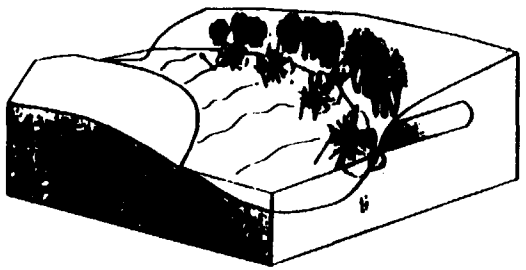
Applications and Effectiveness

- Design of adequate anchoring systems is necessary
- Wire anchoring systems can present safety hazards.
- Work best on streams with streambank heights under 12 feet and bankfull velocities under 6 feet per second
- Use inexpensive, readily available materials.
- Capture sediment and enhances conditions for colonization of native species particularly on streams with high bed material loads.
- Limited life and must be replaced periodically
- Might be severely damaged by ice flows.
- Not appropriate for installation directly upstream of bridges and other channel constrictions because of the potential for downstream damages should the revetment dislodge.
- Should not be used if they occupy more than 15 percent of the channel's cross sectional area at bankfull level
- Not recommended if debris jams on downstream bridges might cause subsequent problems.
- Species that are resistant to decay are best because they extend the establishment period for planted or volunteer species that succeed them.
- Requires toe protection where toe scour is anticipated.
- Should, where appropriate, be used with soil bioengineering systems and vegetative plantings to stabilize the upper bank and ensure a regenerated source of streamside vegetation.

For More Information

- Consult the following references: Nos. 11, 21, 34, 56, 60, 77, 79.

LOG, ROOTWAD, AND BOULDER REVETMENTS



Boulders and logs with root masses attached placed in and on streambanks to provide streambank erosion, trap sediment, and improve habitat diversity.

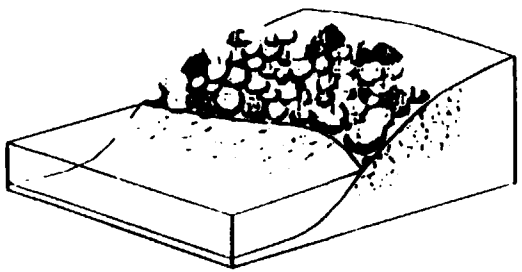
Applications and Effectiveness

- Will tolerate high boundary shear stress if logs and rootwads are well anchored
- Suited to streams where fish habitat deficiencies exist.
- Should, where appropriate, be used with soil bioengineering systems and vegetative plantings to stabilize the upper bank and ensure a regenerative source of streambank vegetation
- Will enhance diversity in riparian areas when used with soil bioengineering systems
- Will have limited life depending on climate and tree species used. Some species, such as cottonwood or willow, often sprout and accelerate colonization.
- Might need eventual replacement if colonization does not take place or soil bioengineering systems are not used
- Use of native materials can sequester sediment and woody debris, restore streambanks in high velocity streams, and improve fish rearing and spawning habitat.
- Site must be accessible to heavy equipment
- Materials might not be readily available at some locations.
- Can create local scour and erosion.
- Can be expensive.

For More Information

- Consult the following references: Nos. 11, 34, 77.

RIPRAP



A blanket of appropriately sized stones extending from the toe of slope to a height needed for long term durability.

Applications and Effectiveness

- Can be vegetated (see joint plantings)
- Appropriate where long term durability is needed, design discharge are high, there is a significant threat to life or high value property, or there is no practical way to otherwise incorporate vegetation into the design
- Should, where appropriate, be used with soil bioengineering systems and vegetative plantings to stabilize the upper bank and ensure a regenerative source of streambank vegetation.
- Flexible and not impaired by slight movement from settlement or other adjustments
- Should not be placed to an elevation above which vegetative or soil bioengineering systems are an appropriate alternative.
- Commonly used form of bank protection
- Can be expensive if materials are not locally available.

For More Information

- Consult the following references: Nos. 11, 14, 18, 34, 39, 56, 67, 70, 77