Joe, Please Bill to 590-1225-01-657-6600
Thanks,
Theresa

KARLaboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

EPA Region 5 Records Ctr.
201026

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 963545
Date Activated: 12/20/96
Date Reported: 12/31/96
PO#: 090279

Project Desc.: Analysis of two solid samples.

1996

Quan	Item
2	PCB Aroclor 1016
2	PCB Aroclor 1221
2	PCB Aroclor 1232
2	PCB Aroclor 1242
2	PCB Aroclor 1248
2	PCB Aroclor 1254
2	PCB Aroclor 1260
2	PCB Aroclors, total
2	Prep, ECD (non-aqueous)

Quoted Price of 63.00 per sample (2 samples) 126.00

TOTAL DUE $126.00

Please indicate Project No. 963545 on check stub or voucher.

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 1/30/97.
ORIGINAL INVOICES ARE SENT TO ACCTS. PAYABLE.

COPY

KARLaboratories, Inc. 40 Years of Service

LABORATORY REPORT

KAR Project No. : *963545*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/31/96*

Project Description : *Analysis of two solid samples.*

Sample ID : *"Belt Press Cake"*

Sampled By : *GT of KWRL*
Sample Date : *12/17/96*
Sample Time : *6:30am*

Date Received : *12/20/96*
Sample Type : *solid*
KAR Sample No. : *963545-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3550	12/30/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/30/96	MSZ	

Sample ID : *"Incinerator Ash"*

Sampled By : *GT of KWRL*
Sample Date : *12/20/96*
Sample Time : *6:30am*

Date Received : *12/20/96*
Sample Type : *solid*
KAR Sample No. : *963545-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3550	12/30/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/30/96	MSZ	

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CHAIN OF CUSTODY RECORD

3070

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) Gwen Taylor

PRIORITY ☒ NORMAL ☐
OTHER –

SEND RESULTS TO: Theresa Wright

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: / SPECIAL DETECTION LIMITS:
1	Belt Press Cake		BPC BCC 35296	1-8oz	12/17/96	6:30 AM PM		✓	
2	Incinerator Ash		IASH 35296	1-8oz	12/17/96	6:30 AM PM		✓	
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		X MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D.O.		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY: (Signature) T. Wright	DATE/TIME 12/20/96 12:00 PM	2 RELINQUISHED BY: (Signature) S. [illegible]	DATE/TIME 12/20/96 12:36
RECEIVED BY: (Signature) S. [illegible]	DATE/TIME 12/20/96 12:22	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

To: Hopes. Fr: Mike J. 3054

TY OF KALAMAZOO
ATER RECLAMATION LABORATORY
15 N. Harrison
lamazoo, Michigan 49007
5-337-8157

SAMPLERS (Signature): Guy [illegible]

PRIORITY ☐ OTHER – NORMAL ☐

~~SEND RESULTS TO:~~ General info regarding KWRP sample IDs

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED. / SPECIAL DETECTION LIMITS
1	Bull Pressfab		BCC 33896	1 8oz	12/3/96	: AM PM		/	
2	Dis Lab		PC1 [illegible]	1 8oz	12/3/96	: AM PM		/	
3	Incineration Ash		IASH 33896	(IASH) 1 8oz	12/3/96	: AM PM		/	
	"BCC," not "BPC"				/ /	: AM PM			
			"PC1" not "PCI"		/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY	X	CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
[illegible]				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
	DATE/TIME		DATE/TIME

Form 954 9-1-96

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. : ***963545***
Date Reported : ***12/31/96***
Date Activated : ***12/20/96***
Date Due : ***12/31/96***
Date Validated : ***12/31/96***

Attn : ***Ms. Theresa Wright***

Project Description : ***Analysis of two solid samples.***

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. 963545. 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

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KAR Laboratories, Inc. 40 Years of Service

FACSIMILE COVER PAGE

Date:	12/31/96
Time:	10:21:02
Pages:	3

To:	Ms. Theresa Wright
Company:	Kalamazoo Water Reclamation Plant
Fax #:	337-8699

From:	Sandy Mertz
Title:	Secretary
Company:	KAR Laboratories, Inc.
Address:	4425 Manchester Road Kalamazoo, MI 49001 USA
Fax #:	616-381-9698
Voice #:	616-381-9666

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***963545***
Date Reported :	***12/31/96***
Date Activated :	***12/20/96***
Date Due :	***12/31/96***
Date Validated :	***12/31/96***

Project Description : ***Analysis of two solid samples.***

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. 963545. 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

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LABORATORY REPORT

KAR Project No. : ***963545***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***12/31/96***

Project Description : ***Analysis of two solid samples.***

Sample ID : ***"Belt Press Cake"***

Sampled By : *GT of KWRL*
Sample Date : *12/17/96*
Sample Time : *6:30am*

Date Received : *12/20/96*
Sample Type : *solid*
KAR Sample No. : *963545-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3550	12/30/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/30/96	MSZ	

Sample ID : ***"Incinerator Ash"***

Sampled By : *GT of KWRL*
Sample Date : *12/20/96*
Sample Time : *6:30am*

Date Received : *12/20/96*
Sample Type : *solid*
KAR Sample No. : *963545-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3550	12/30/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/30/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/30/96	MSZ	

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CHAIN OF CUSTODY RECORD

3070

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☒ NORMAL ☐
OTHER –

SEND RESULTS TO: Theresa Wright

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	Belt Press Cake		~~BPC~~ BCC 35296	1-8oz	12/17/96	6:30 AM PM		✓	
2	Incinerator ASH		IASH 35296	1-8oz	12/17/96	6:30 AM PM		✓	
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCBs TOTAL	X	
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE FREE		
TOTAL P		MERCURY	X	CHLORINE TOTAL		
ORTHO P		BERYLLIUM		HARDNESS TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature): T. Wright	DATE/TIME 12/20/96 10:20 AM	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature): S. [illegible]	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 12/20/96 12:22 PM	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

LABORATORY REPORT

KAR Project No. : *962410*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/23/96*

Project Description : *Analysis of one aqueous sample (KWRP C-of-C #16166).*

Sample ID : *"Sparta Foundry, SKK 25196"*

Sampled By : *S. Kuilema of KWRP*
Sample Date : *9/7/96*
Sample Time : *11:30am*

Date Received : *9/9/96*
Sample Type : *aqueous*
KAR Sample No. : *962410-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/11/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	9/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/20/96	MSZ	

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ITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

SAMPLERS: (Signature) D. Kuilema

PURPOSE OF ANALYSIS: Hauled Waste

16166

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Sparta Foundry	SKK 25196	1-1L.	9/7/96	11:30 AM		H	Dumping Station / Clear / PCB's

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMIUM		VOC'S	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER		METHOD 601	
TSS		LEAD		METHOD 602	
VSS		NICKEL		METHOD 8015	
NH_3-N		ZINC		METHOD 8260	
TOTAL P		SILVER			
ORTHO P		MERCURY		FORMALDEHYDE	
GREASE/OIL		BERYLLIUM		PCB'S - TOTAL	✓
CHLORIDE		BARIUM			
CN - TOTAL		ARSENIC		OTHER	
CN - AMENABLE					
TPH					

REMARKS:

1 RELINQUISHED BY: (Signature) D. Kuilema	DATE/TIME 9/9/96 9:50 AM	2 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

'015

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. : ***962410***
Date Reported : ***09/23/96***
Date Activated : ***09/09/96***
Date Due : ***09/23/96***
Date Validated : ***09/23/96***

Attn : ***Mr. Bob O'Day***

Project Description : ***Analysis of one aqueous sample (KWRP C-of-C #16166).***

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. 962410. 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

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KAR Laboratories, Inc. 40 Years of Service

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 960056
Date Activated: 01/05/96
Date Reported: 01/19/96
PO#: 090279

Project Desc.: Analysis of six samples (KWRP C-of-C #2058 & 2059).

Quan	Item	Each	Total
3	Mercury & PCBs	87.12	261.36
3	PCBs	61.50	184.50
2	Solids, total	15.00	30.00

Quoted Price 475.86

TOTAL DUE $ 475.86

Please indicate Project No. 960056 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

COPY

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : ***Ms. Theresa Wright***

KAR Project No. :	***960056***
Date Reported :	***01/19/96***
Date Activated :	***01/05/96***
Date Due :	***01/19/96***
Date Validated :	***01/19/96***

Project Description : ***Analysis of six samples (KWRP C-of-C #2048 & 2049).***

Dear Client,

This laboratory report represents KAR Laboratories' analysis of samples associated with the above-referenced project. Unless otherwise stated (under "Comments" heading) all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and results represent the samples as they were received.

In the event that you need to contact us about this work please mention KAR Project No. 960056. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. If you have a question regarding quality assurance please contact William Rauch.

Thank you for this opportunity to serve you. Please do not hesitate to call if we can provide additional assistance.

Respectfully submitted,

Michael J. Jaeger
Director of Laboratories

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ANALYTICAL REPORT

KAR Project No. : *960056*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/19/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2048 & 2049).*

Sample ID : *"Primary Influent, PIN #00596"*

Sampled By : *JW of KWRP*

Sample Date : *1/5/96*

Sample Time : *7:00a*

Date Received : *1/5/96*

Sample Type : *aqueous*

KAR Sample No. : *960056-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/10/96	MSZ	

This report may only be reproduced in full and not without the written consent of **Kalamazoo Water Reclamation Plant**.

KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960056*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/19/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2048 & 2049).*

Sample ID : *"Industrial Influent, II #00596"*

Sampled By : *JW of KWRP*

Sample Date : *1/5/96*

Sample Time : *7:00a*

Date Received : *1/5/96*

Sample Type : *aqueous*

KAR Sample No. : *960056-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/10/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960056*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/19/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2048 & 2049).*

Sample ID : *"Tertiary Effluent, TEF #00596"*

Sampled By : *JW of KWRP*

Sample Date : *1/5/96*

Sample Time : *7:00a*

Date Received : *1/5/96*

Sample Type : *aqueous*

KAR Sample No. : *960056-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	1/10/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/10/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960056*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/19/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2048 & 2049).*

Sample ID : *"Belt Press Cake, BPC #00596"*

Sampled By : *JW of KWRP*

Sample Date : *1/5/96*

Sample Time : *7:00a*

Date Received : *1/5/96*

Sample Type : *solid*

KAR Sample No. : *960056-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.1	mg/kg dry sample	EPA 7471A	1/10/96	DBL	
Solids, total	29.22	% by weight	SM Ed18 2540 B	1/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/11/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960056*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/19/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2048 & 2049).*

Sample ID : *"DSE Cake, DSE #00596"*

Sampled By : *JW of KWRP*

Sample Date : *1/5/96*

Sample Time : *7:00a*

Date Received : *1/5/96*

Sample Type : *solid*

KAR Sample No. : *960056-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.34	mg/kg dry sample	EPA 7471A	1/10/96	DBL	
Solids, total	58.74	% by weight	SM Ed18 2540 B	1/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/11/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960056*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/19/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2048 & 2049).*

Sample ID : *"Incinerator Ash, IA #00596"*

Sampled By : *JW of KWRP*

Sample Date : *1/5/96*

Sample Time : *7:00a*

Date Received : *1/5/96*

Sample Type : *solid*

KAR Sample No. : *960056-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7471A	1/10/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/11/96	MSZ	

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CHAIN OF CUSTODY RECORD

№ 002049

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J.W.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Influent	PIN 00596	1 - 1L	1/5/96	7:00 am		x	KWRP
2	Industrial Influent	II 00596	1 - 1L	1/5/96			x	
3	Tertiary Effluent	TEF 00596	1 - 1L	"			x	
4	Belt Press Cake	BPC 00596	1 - 8oz	"			x	
5	DSE Cake	DSE 00596	1 - 8oz	"			x	
6	Incinerator Ash	IA 00596	1 - 8oz	"			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	1/5/96 10:35 am	S. [illegible]	1/5/96 10:35				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**
S. [illegible]	1/5/96 10:55	Garrett Ewin	1/5/96 10:55				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002048

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J.W

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BPC 00596	1 - 8oz	1/5/96	7:00		X	KWRP
2	DSE Cake	DSE 00596	1 - 8oz	1/5/96	↓		X	"
3	Incinerator Ash	IA 00596	1 - 8oz	1/5/96	↓		X	"

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	1/5/96 10:35	S. [signature]	1/5/96 10:35				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [signature]	1/5/96 10:55	Garrett Ervin	1/5/96 10:55				

REMARKS:

Form 954 11-13 85

CHAIN OF CUSTODY RECORD

№ 002123

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB's

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Influent	PIN 04096	1 1 Liter	2/9/96			X	KWRP
2	Intermediate Inf	II 04096	1 1 Liter	2/9/96			X	
3	Tertiary Effluent	TE 04096	1 - 1 Liter	2/9/96			X	
4	Belt Press Cake	BPC 04096	1 - 8 oz	2/9/96			X	
5	DSE Cake	DSE 04096	1 - 8 oz	2/9/96			X	
6	Incinerator Ash	IA 04096	1 - 8 oz	2/9/96			X	
				2/9/96				

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	2/9/96 12:28 pm	[illegible]	2/9/96 12 [illegible]				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY. (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11 13 85

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49002
Phone 616 381-9666
Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn. : Ms. Theresa Wright

KAR Project No. :	960343
Date Reported :	02/20/96
Date Activated :	02/09/96
Date Due :	02/23/96
Date Validated :	02/20/96

Project Description : Analysis of six samples (KWRP C-of-C #2123 & 2125).

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. 960343. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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KARLaboratories, Inc. 40 Years of Service

ANALYTICAL REPORT

KAR Project No. : *960343*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2123 & 2125).*

Sample ID : *"Primary Influent, PIN 04096"*

Sampled By : *JW of KWRP*

Sample Date : *2/9/96*

Sample Time :

Date Received : *2/9/96*

Sample Type : *aqueous*

KAR Sample No. : *960343-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960343*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2123 & 2125).*

Sample ID : *"Industrial Influent, II 04096"*

Sampled By : *JW of KWRP*

Sample Date : *2/9/96*

Sample Time :

Date Received : *2/9/96*

Sample Type : *aqueous*

KAR Sample No. : *960343-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960343*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2123 & 2125).*

Sample ID : *"Tertiary Effluent, TE 04096"*

Sampled By : *JW of KWRP*

Sample Date : *2/9/96*

Sample Time :

Date Received : *2/9/96*

Sample Type : *aqueous*

KAR Sample No. : *960343-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960343*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2123 & 2125).*

Sample ID : *"Belt Press Cake, BPC 04096"*

Sampled By : *JW of KWRP*

Sample Date : *2/9/96*

Sample Time :

Date Received : *2/9/96*

Sample Type : *solid*

KAR Sample No. : *960343-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 20	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
Solids, total	25 46	% by weight	SM Ed18 2540 B	2/12/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/13/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960343*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2123 & 2125).*

Sample ID : *"DSE Cake, DSE 04096"*

Sampled By : *JW of KWRP*

Sample Date : *2/9/96*

Sample Time :

Date Received : *2/9/96*

Sample Type : *solid*

KAR Sample No. : *960343-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0 09	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
Solids, total	60 98	% by weight	SM Ed18 2540 B	2/12/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/13/96	MSZ	

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KARLaboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960343*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2123 & 2125).*

Sample ID : *"Incinerator Ash, IA 04096"*

Sampled By : *JW of KWRP*

Sample Date : *2/9/96*

Sample Time :

Date Received : *2/9/96*

Sample Type : *solid*

KAR Sample No. : *960343-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/13/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/13/96	MSZ	

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KARLaboratories, Inc.

(616) 381-9666

CHAIN OF CUSTODY RECORD

№ 002125

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BPC 04096	1 - Bag	2/9/96			x	KWRP
2	Disc Cake	DSC 04096	1 - Bag	2/9/96			x	
3	Incinerator Ash	IA 04096	1 - Bag	2/9/96			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	2/9/96 12:28 pm	S. [illegible]	2/9/96 12:28 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	2/9/96 1:12 pm	E. Fowny	2/9/96 2:05 pm				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002121

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS. Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	~~BPC~~ BCC 03896	1 - 8 oz	2/7/96			x	KWRP
2	DSC Cake	~~DSC~~ PC1 03896	1 - 8 oz	"			x	↓
3	Incinerator Ash	IA 03896	1 - 8 oz	"			x	↓

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	2/7/96 3:50 pm	S. HL	2/7/96 3:50 pm				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13 85

KARLaboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002
Phone 616 381-9666
Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 960326
Date Activated: 02/07/96
Date Reported: 02/20/96
PO#: 090279

Project Desc.: Analysis of six samples (KWRP C-of-C #2020 & 2021).

Quan	Item	Each	Total
3	Mercury, total, low level & PCBs	87.12	261.36
3	PCBs, total	61.50	184.50
2	Solids, total	15.00	30.00

Quoted Price 475.86

TOTAL DUE $ 475.86

Please indicate Project No. 960326 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18%
WILL BE ADDED TO BALANCES

COPY

KARLaboratories, Inc. 40 Years of Service

KAR*Laboratories, Inc.*

4425 Manchester Road
Kalamazoo MI 49002
Phone 616 381-9666
Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn. : Ms. Theresa Wright

KAR Project No. :	960326
Date Reported :	02/20/96
Date Activated :	02/07/96
Date Due :	02/21/96
Date Validated :	02/20/96

Project Description : Analysis of six samples (KWRP C-of-C #2020 & 2021).

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. 960326. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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KAR Laboratories, Inc. 40 Years of Service

ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Primary Influent, PIN #03896"*

Sampled By : *JW of KWRP*
Sample Date : *2/7/96*
Sample Time :

Date Received : *2/7/96*
Sample Type : *aqueous*
KAR Sample No. : *960326-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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KARLaboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Industrial Influent, II #03896*

Sampled By : *JW of KWRP*
Sample Date : *2/7/96*
Sample Time :

Date Received : *2/7/96*
Sample Type : *aqueous*
KAR Sample No. : *960326-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Tertiary Effluent, TEF #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *aqueous*

KAR Sample No. : *960326-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Belt Press Cake, BPC #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *solid*

KAR Sample No. : *960326-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.18	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
Solids, total	28.51	% by weight	SM Ed18 2540 B	2/9/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/8/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"DSE Cake, DSE #03896"*

Sampled By : *JW of KWRP*
Sample Date : *2/7/96*
Sample Time :

Date Received : *2/7/96*
Sample Type : *solid*
KAR Sample No. : *960326-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.39	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
Solids, total	57.28	% by weight	SM Ed18 2540 B	2/9/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/8/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Incinerator Ash, IA #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *solid*

KAR Sample No. : *960326-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/8/96	MSZ	

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KARLaboratories, Inc.

(616) 381-9666

CHAIN OF CUSTODY RECORD

№ 002120

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB's

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Inf	PIN 03896	1 - 1 Liter	2/7/96			X	KWRP
2	Mechanical Influent	~~[illegible]~~ II 03896	1 - 1 Liter				X	
3	Tertiary Effluent	TEF 03896	1 - 1 Liter				X	
4	Belt Press Cake	BPC 03896	1 - 8 oz				X	
5	DSE Cake	DSC 03896	1 - 8 oz				X	
6	Incinerator Ash	IA 03896	1 - 8 oz				X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R. Sunley	2/7/96 350 pm	S. [illegible]	2/7/96 3:50 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	2/7/96 4:40 pm						

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002120

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB's

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Inf	PIN 03896	1 - 1 Liter	2/7/96			X	KLWRP
2	Industrial Influent	~~[illegible] II~~ 03896 IP1	1 - 1 Liter				X	
3	Tertiary Effluent	TEF 03896	1 - 1 Liter				X	
4	Belt Press Cake	BPC BCC 03896	1 - 8 oz				X	
5	DSE Cake	DSE PC1 03896	1 - 8 oz				X	
6	Incinerator Ash	IASH 03896	1 - 8 oz				X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	2/7/96 3:00 pm	[illegible]	2/7/96 3:00				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002120

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB's

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Inf	PIN 03896	1 - 1 Liter	2/7/96			X	KWRP
2	Secondary Influent	~~SINF~~ II 03896	1 - 1 Liter				X	
3	Tertiary Effluent	TEF 03896	1 - 1 Liter				X	
4	Belt Press Cake	BPC 03896	1 - 8 oz				X	
5	DSC Cake	DSC 03896	1 - 8 oz				X	
6	Incinerator Ash	IA 03896	1 - 8 oz				X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R. Sunley	2/7/96 3:50 pm	S. Hl	2/7/96 5:50 pm				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**
S. Hl	2/7/96 4:40 pm						

REMARKS:

Form 954 11-13 85

KAR*Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn. : Ms. Theresa Wright

KAR Project No. :	960326
Date Reported :	02/20/96
Date Activated :	02/07/96
Date Due :	02/21/96
Date Validated :	02/20/96

Project Description : Analysis of six samples (KWRP C-of-C #2020 & 2021).

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. 960326. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Primary Influent, PIN #03896"*

Sampled By : *JW of KWRP*
Sample Date : *2/7/96*
Sample Time :

Date Received : *2/7/96*
Sample Type : *aqueous*
KAR Sample No. : *960326-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Industrial Influent, II #03896*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *aqueous*

KAR Sample No. : *960326-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Tertiary Effluent, TEF #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *aqueous*

KAR Sample No. : *960326-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	2/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/12/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Belt Press Cake, BPC #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *solid*

KAR Sample No. : *960326-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 18	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
Solids, total	28 51	% by weight	SM Ed18 2540 B	2/9/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/8/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"DSE Cake, DSE #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *solid*

KAR Sample No. : *960326-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0 39	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
Solids, total	57.28	% by weight	SM Ed18 2540 B	2/9/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/8/96	MSZ	

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KARLaboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960326*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *02/20/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2020 & 2021).*

Sample ID : *"Incinerator Ash, IA #03896"*

Sampled By : *JW of KWRP*

Sample Date : *2/7/96*

Sample Time :

Date Received : *2/7/96*

Sample Type : *solid*

KAR Sample No. : *960326-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7471A	2/19/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	2/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	2/8/96	MSZ	

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KARLaboratories, Inc.

(616) 381-9666

CHAIN OF CUSTODY RECORD

№ 002081

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R.D.S.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bell Press Cake	~~BPC~~ BCC 060596	1 - 8oz	3/5/96				KWRP
2	Dose Cake	~~DSC~~ PC1 060596	1 - 8oz	3/5/96				↓

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	3/5/96	S Hl	3/6/96 3:00p				
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11 13-85

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

N 14824

SAMPLERS: (Signature) R. D. S.

PURPOSE OF ANALYSIS: PCB's

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Inf	PIN 06596	1 - 1 liter	3/5/96				KWRP
2	Industrial Inf	II 06596	1 - 1 liter	↓				↓
3	Tertiary Effluent	TEF 06596	1 - 1 liter					
4	Belt Press Cake LTD	~~BPC~~ BCC 06596	1 - 8oz					
5	~~DSC~~ Cake	~~DSC~~ PCI 06596	1 - 8oz					

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMIUM		EPA METHOD 601	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER			
TSS		LEAD			
VSS		NICKEL			
NH_3-N		ZINC		EPA METHOD 602	
TOTAL P		SILVER			
ORTHO P		MERCURY			
GREASE/OIL		BERYLLIUM			
CHLORIDE		BARIUM			
CN - TOTAL					
CN - AMENABLE				OTHER	

REMARKS:

1 RELINQUISHED BY: (Signature)	DATE/TIME 3/5/96	2 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature) S. [illegible]	DATE/TIME 3/5/96 3:00P	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 1015

KARLaboratories, Inc.

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 960558
Date Activated: 3/05/96
Date Reported: 3/19/96
PO#: 090279

Project Desc.: Analysis of five samples (KWRP C-of-C #2081 & 14824).

Quan	Item	Each	Total
2	Mercury + PCBs, non-aqueous	87.10	174.24
3	PCBs, aqueous	61.50	184.50
2	Solids, total	15.00	30.00

TOTAL DUE $ 388.74

Please indicate Project No. 960558 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 4/18/96.
ORIGINAL INVOICES ARENT TO ACCTS. PAYABLE.

COPY

KAR Laboratories, Inc. 40 Years of Service

KAR*Laboratories, Inc.*

4425 Manchester Road

Kalamazoo MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***960558***
Date Reported :	***03/19/96***
Date Activated :	***03/05/96***
Date Due :	***03/19/96***
Date Validated :	***03/19/96***

Project Description : ***Analysis of five samples (KWRP C-of-C #2081 & 14824).***

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 is was received.

If you wish to contact us about this work please mention KAR Project No. 960558. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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KARLaboratories, Inc. 40 Years of Service

LABORATORY REPORT

KAR Project No. : *960558*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/19/96*

Project Description : *Analysis of five samples (KWRP C-of-C #2081 & 14824).*

Sample ID : *"Belt Press Cake, ~~BPC~~ 06596"* BCC

Sampled By : *RDS of KWRP*
Sample Date : *3/5/96*
Sample Time :

Date Received : *3/5/96*
Sample Type : *solid*
KAR Sample No. : *960558-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0 37	mg/kg dry sample	EPA 7471A	3/15/96	MTM	
Solids, total	43.20	% by weight	SM Ed18 2540 B	3/7/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/6/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960558*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/19/96*

Project Description : *Analysis of five samples (KWRP C-of-C #2081 & 14824).*

Sample ID : *"DSE Press Cake, DSE 06596"*

Sampled By : *RDS of KWRP*

Sample Date : *3/5/96*

Sample Time :

Date Received : *3/5/96*

Sample Type : *solid*

KAR Sample No. : *960558-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.42	mg/kg dry sample	EPA 7471A	3/15/96	MTM	
Solids, total	56.97	% by weight	SM Ed18 2540 B	3/7/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080	3/6/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/6/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960558*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/19/96*

Project Description : *Analysis of five samples (KWRP C-of-C #2081 & 14824).*

Sample ID : *"Primary Influent, PIN 06596"*

Sampled By : *RDS of KWRP*
Sample Date : *3/5/96*
Sample Time :

Date Received : *3/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960558-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960558*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/19/96*

Project Description : *Analysis of five samples (KWRP C-of-C #2081 & 14824).*

Sample ID : *"Industrial Influent, ~~II~~ 06596"*

Sampled By : *RDS of KWRP*

Sample Date : *3/5/96*

Sample Time :

Date Received : *3/5/96*

Sample Type : *aqueous*

KAR Sample No. : *960558-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960558*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/19/96*

Project Description : *Analysis of five samples (KWRP C-of-C #2081 & 14824).*

Sample ID : *"Tertiary Effluent, TEF 06596"*

Sampled By : *RDS of KWRP*

Sample Date : *3/5/96*

Sample Time :

Date Received : *3/5/96*

Sample Type : *aqueous*

KAR Sample No. : *960558-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/12/96	MSZ	

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CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N Harrison
Kalamazoo, Michigan 49007
616 337 8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

SAMPLERS: (Signature) P.M. / J.W.

PURPOSE OF ANALYSIS. PCB's

N: 14826

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 06796	1 - 1 liter	3/7/96				KWRP
2	Industrial Influent	II 06796	1 - 1 liter					
3	Primary Influent	PI 06796	1 - 1 liter					
4	Belt Press Cake	BPC 06796	1 - 8oz					
5	DSE Cake	DSE 06796	1 - 8oz					

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMIUM		EPA METHOD 601	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER			
TSS		LEAD			
VSS		NICKEL			
NH_3-N		ZINC		EPA METHOD 602	
TOTAL P		SILVER			
ORTHO P		MERCURY			
GREASE/OIL		BERYLLIUM			
CHLORIDE		BARIUM			
CN - TOTAL					
CN - AMENABLE				OTHER	

REMARKS:

DATE/TIME		DATE/TIME	
RECEIVED BY (Signature)		RECEIVED BY (Signature)	
DATE/TIME		DATE/TIME	
3 RELINQUISHED BY. (Signature)		4 RELINQUISHED BY. (Signature)	
DATE/TIME	3/7/96 3:30 PM	DATE/TIME	
RECEIVED BY. (Signature)	S. H.	RECEIVED BY (Signature)	
DATE/TIME	3/7/96 3:36 PM	DATE/TIME	
1 RELINQUISHED BY. (Signature)	R. Beale	2 RELINQUISHED BY. (Signature)	

Form 1015

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

SAMPLERS: (Signature) P.M. / J.W

PURPOSE OF ANALYSIS: Hg

N: 14825

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BPC 06796	1 - 8oz	3/7/96				KWEA
2	DSE Cake	DSE 06796	1 - 8oz	"				"

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMIUM		EPA METHOD 601	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER			
TSS		LEAD			
VSS		NICKEL			
NH_3-N		ZINC		EPA METHOD 602	
TOTAL P		SILVER			
ORTHO P		MERCURY			
GREASE/OIL		BERYLLIUM			
CHLORIDE		BARIUM			
CN - TOTAL					
CN - AMENABLE				OTHER	

REMARKS:

DATE/TIME	DATE/TIME
RECEIVED BY: (Signature)	RECEIVED BY: (Signature)
DATE/TIME	DATE/TIME
3 RELINQUISHED BY: (Signature)	4 RELINQUISHED BY: (Signature)
DATE/TIME 3/7/96 3:30 PM	DATE/TIME
RECEIVED BY: (Signature) S. [illegible]	RECEIVED BY (Signature)
DATE/TIME 3/7/96 3:30 PM	DATE/TIME
1 RELINQUISHED BY. (Signature) R Blake	2 RELINQUISHED BY: (Signature)

Form 1015

KARLaboratories, Inc.

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

COPY

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 960591
Date Activated: 3/07/96
Date Reported: 3/21/96
PO#: 090279

Project Desc.: Analysis of five samples (KWRP C-of-C #14825 & 14826).

Quan	Item	Each	Total
2	Mercury + PCBs (non-aqueous)	87.12	174.24
3	PCBs, aqueous	61.50	184.50
2	Solids, total	15.00	30.00

Quoted Price 388.74

TOTAL DUE $ 388.74

Please indicate Project No. 960591 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 4/20/96.
ORIGINAL INVOICES ARENT TO ACCTS. PAYABLE.

KARLaboratories, Inc. 40 Years of Service

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***960591***
Date Reported :	***03/21/96***
Date Activated :	***03/07/96***
Date Due :	***03/21/96***
Date Validated :	***03/20/96***

Project Description : ***Analysis of five samples (KWRP C-of-C #14825 & 14826).***

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 is was received.

If you wish to contact us about this work please mention KAR Project No. 960591. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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KAR Laboratories, Inc. 40 Years of Service

LABORATORY REPORT

KAR Project No. : **960591**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/21/96*

Project Description : *Analysis of five samples (KWRP C-of-C #14825 & 14826).*

BCC

Sample ID : *"~~BPC~~ 06796"*

Sampled By : *PM/JW of KWRP*

Sample Date : *3/7/96*

Sample Time :

Date Received : *3/7/96*

Sample Type : *solid*

KAR Sample No. : *960591-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.26	mg/kg dry sample	EPA 7471A	3/15/96	MTM	
Solids, total	33.31	% by weight	SM Ed18 2540 B	3/11/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960591*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/21/96*

Project Description : *Analysis of five samples (KWRP C-of-C #14825 & 14826).*

PCI ~~DSE~~

Sample ID : *"DSE 06796"*

Sampled By : *PM/JW of KWRP*

Sample Date : *3/7/96*

Sample Time :

Date Received : *3/7/96*

Sample Type : *solid*

KAR Sample No. : *960591-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0 42	mg/kg dry sample	EPA 7471A	3/15/96	MTM	
Solids, total	56 59	% by weight	SM Ed18 2540 B	3/11/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080	3/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960591*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/21/96*

Project Description : *Analysis of five samples (KWRP C-of-C #14825 & 14826).*

Sample ID : *"TEF 06796"*

Sampled By : *PM/JW of KWRP*

Sample Date : *3/7/96*

Sample Time :

Date Received : *3/7/96*

Sample Type : *aqueous*

KAR Sample No. : *960591-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960591*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/21/96*

Project Description : *Analysis of five samples (KWRP C-of-C #14825 & 14826).*

Sample ID : *"II 06796"*

Sampled By : *PM/JW of KWRP*

Sample Date : *3/7/96*

Sample Time :

Date Received : *3/7/96*

Sample Type : *aqueous*

KAR Sample No. : *960591-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960591*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *03/21/96*

Project Description : *Analysis of five samples (KWRP C-of-C #14825 & 14826).*

Sample ID : *"PI 06796"*

Sampled By : *PM/JW of KWRP*

Sample Date : *3/7/96*

Sample Time :

Date Received : *3/7/96*

Sample Type : *aqueous*

KAR Sample No. : *960591-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	3/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/12/96	MSZ	

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:ITY OF KALAMAZOO
)EPARTMENT OF PUBLIC UTILITIES
415 N. Harrison
alamazoo, Michigan 49007
16-337-8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

SAMPLERS: (Signature) P.M. / J.W.

PURPOSE OF ANALYSIS: PCB's

№ 14826

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TCF 06796	1 - 1 Liter	3/7/96				KWRP
2	Industrial Effluent	II 06796	1 - 1 Liter					
3	Primary Effluent	PI 06796	1 - 1 Liter					
4	Belt Press Cake	BPC 06796	1 - 8oz					
5	DSE Cake	DSE 06796	1 - 8oz					

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMIUM		EPA METHOD 601	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER			
TSS		LEAD			
VSS		NICKEL			
NH_3-N		ZINC		EPA METHOD 602	
TOTAL P		SILVER			
ORTHO P		MERCURY			
GREASE/OIL		BERYLLIUM			
CHLORIDE		BARIUM			
CN - TOTAL					
CN - AMENABLE				OTHER	

REMARKS:

1 RELINQUISHED BY: (Signature) R Blake	DATE/TIME 3/7/96 3:36 PM	RECEIVED BY: (Signature) S. [illegible]	DATE/TIME 3/7/96 3:36 PM
2 RELINQUISHED BY: (Signature) S. [illegible]	DATE/TIME 3/7/96 4:10 PM	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

CHAIN OF CUSTODY RECORD AND LAB ANALYSIS REPORT FORM

SAMPLERS: (Signature) P.M. / J.W

PURPOSE OF ANALYSIS: Hg

№ 14825

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BPC 06796	1 - 8oz	3/7/96				KWEP
2	DSE Cake	DSE 06796	1 - 8oz	↓				↓

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC COMPOUNDS	RESULT
pH		CADMIUM		EPA METHOD 601	
BOD		TOTAL CHROMIUM			
CBOD		HEX. CHROME			
COD		COPPER			
TSS		LEAD			
VSS		NICKEL			
NH_3-N		ZINC		EPA METHOD 602	
TOTAL P		SILVER			
ORTHO P		MERCURY			
GREASE/OIL		BERYLLIUM			
CHLORIDE		BARIUM			
CN - TOTAL					
CN - AMENABLE				OTHER	

REMARKS:

DATE/TIME		DATE/TIME	
RECEIVED BY: (Signature)		RECEIVED BY: (Signature)	
DATE/TIME		DATE/TIME	
3 RELINQUISHED BY: (Signature)		4 RELINQUISHED BY: (Signature)	
1 DATE/TIME	3/7/96 3:30	DATE/TIME	
RECEIVED BY: (Signature)	S. [illegible]	RECEIVED BY: (Signature)	
DATE/TIME	3/7/96 3:36 PM	DATE/TIME	3/7/96 4:10
1 RELINQUISHED BY: (Signature)	R. [illegible]	2 RELINQUISHED BY: (Signature)	S. [illegible]

CHAIN OF CUSTODY RECORD

№ 002054

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS. Hg - PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Incinerator Ash	1A 02096	1 - 8oz	3/20/96			x	Hg
2	"	1A 02096	1 - 8oz	3/20/96			x	PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	3/21/96 11:45a	S. Hb	3/21/96 11:45a				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002053

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg + PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Incinerator Ash	1A 07996	1 - 8oz	3/19/96			x	Hg
2	"	1A 07996	1 - 8oz	3/19/96			x	PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	3/21/96 11:45 am	S. [illegible]	3/21/96 11:45 am				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 960719
Date Activated: 03/21/96
Date Reported: 04/01/96
PO#: 090279

Project Desc.: Analysis of two solid samples(KWRP C-of-C #2053 & 2054).

Quan	Item	Each	Total
2	Mercury, total, low level & PCBs	87.12	174.24

Quoted Price 174.24

TOTAL DUE $ 174.24

Please indicate Project No. 960343 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

COPY

KAR Laboratories, Inc. 40 Years of Service

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***960719***
Date Reported :	***04/01/96***
Date Activated :	***03/21/96***
Date Due :	***04/04/96***
Date Validated :	***04/01/96***

Project Description : ***Analysis of two solid samples (KWRP c-of-c #2053 & 2054).***

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 is was received.

If you wish to contact us about this work please mention KAR Project No. 960719. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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LABORATORY REPORT

KAR Project No. : *960719*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/01/96*

Project Description : *Analysis of two solid samples (KWRP c-of-c #2053 & 2054).*

Sample ID : *"IA 08096"*

Sampled By : *JW of KWRP*
Sample Date : *3/20/96*
Sample Time :

Date Received : *3/21/96*
Sample Type : *solid*
KAR Sample No. : *960719-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 245.2	3/29/96	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/26/96	MSZ	

Sample ID : *"IA 07996"*

Sampled By : *JW of KWRP*
Sample Date : *3/19/96*
Sample Time :

Date Received : *3/21/96*
Sample Type : *solid*
KAR Sample No. : *960719-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 245.2	3/29/96	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/26/96	MSZ	

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CHAIN OF CUSTODY RECORD

№ 002053

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg + PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Incinerator Ash	1A 07996	1 - 8oz	3/19/96			x	Hg
2	"	1A 07996	1 - 8oz	3/19/96			x	PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	3/21/96 11:45 am	S. [illegible]	3/21/96 11:45 am				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	3/21/96 12:35 pm	E. Young	3/21/96 2:15 pm				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002054

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg - PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Incinerator Ash	1A 02096	1 - 8oz	3/20/96			x	Hg
2	"	1A 02096	1 - 8oz	3/20/96			x	PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	3/21/96 11:45 am	S. Hl	3/21/96 11:45 am				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	3/21/96 12:35 pm	E Fowny	3/21/96 12:15 pm				

REMARKS:

Form 954 11 13 85

LABORATORY REPORT

KAR Project No. : *960719*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/01/96*

Project Description : *Analysis of two solid samples (KWRP c-of-c #2053 & 2054).*

Sample ID : *"IA 08096"*

Sampled By : *JW of KWRP*
Sample Date : *3/20/96*
Sample Time :

Date Received : *3/21/96*
Sample Type : *solid*
KAR Sample No. : *960719-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 245.2	3/29/96	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/26/96	MSZ	

Sample ID : *"IA 07996"*

Sampled By : *JW of KWRP*
Sample Date : *3/19/96*
Sample Time :

Date Received : *3/21/96*
Sample Type : *solid*
KAR Sample No. : *960719-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 245.2	3/29/96	MTM	
PCB Aroclor 1016	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1221	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1232	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1242	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1248	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1254	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclor 1260	<330	ug/kg	EPA 8080	3/26/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	3/26/96	MSZ	

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KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***960719***
Date Reported :	***04/01/96***
Date Activated :	***03/21/96***
Date Due :	***04/04/96***
Date Validated :	***04/01/96***

Project Description : ***Analysis of two solid samples (KWRP c-of-c #2053 & 2054).***

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 is was received.

If you wish to contact us about this work please mention KAR Project No. 960719. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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CHAIN OF CUSTODY RECORD

№ 002053

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg & PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Incinerator Ash	1A 07996	1 - 8oz	3/19/96			x	Hg
2	"	1A 07996	1 - 8oz	3/19/96			x	PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	3/21/96 11:45 am	S. [illegible]	3/21/96 11:45 am				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	3/21/96 12:35 pm	E. Young	3/21/96 2:15 pm				

REMARKS:

Form 954 11-13 85

CHAIN OF CUSTODY RECORD

№ 002054

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg - PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Incinerator Ash	1A 08096	1 - 8oz	3/20/96			x	Hg
2	"	1A 08096	1 - 8oz	3/20/96			x	PCB

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	3/21/96 11:45 am	S. Hl	3/21/96 11:45 am				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	3/21/96 12:35 pm	E. Fowny	3/21/96 1:15 pm				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002150

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J. B.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bake Press Cake	BCC 09696	1 - 8 oz	4/5/96			X	
2	DSC Cake	PC1 09696	1 - 8 oz	↓			X	
3	Incinerator Ash	IASH 09696	1 - 8 oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R Blake	4/5/96 10:10 AM	S. H	4/5/96 10:10a				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002152

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) JOHN W.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 09496	1-8oz	4/3/96	7:00am		X	
2	DSE Cake	PCI 09496	1-8oz	4/3/96			X	
3	Tertiary Effluent	TEF 09496	1-1 Liter				X	
4	Industrial Influent	IPI 09496	1-1 Liter				X	
5	Primary Influent	PIN 09496	1-1 Liter				X	
6	Incinerator Ash	IASH 09496	1-8oz	4/3/96			X	

	DATE/TIME			DATE/TIME			DATE/TIME			DATE/TIME
1 RELINQUISHED BY: (Signature) R Blake	4/5/96	10:10 AM	RECEIVED BY: (Signature) S. Ha	4/5/96	10:10 AM	3 RELINQUISHED BY: (Signature)			RECEIVED BY: (Signature)	
2 RELINQUISHED BY: (Signature)			RECEIVED BY: (Signature)			4 RELINQUISHED BY: (Signature)			RECEIVED BY: (Signature)	

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002151

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J. B.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 09696	1 - 8 oz	4/5/96			X	
2	DSE Cake	PCI 09696	1 - 8 oz	↓			↓	
3	Incinerator Ash	IASH 09696	1 - 8 oz	↓			↓	
4	Tertiary Effluent	TEF 09696	1 - 1 liter	↓			↓	
5	Primary Influent	PIN 09696	1 - 1 liter	↓			↓	
6	Industrial Influent	IPI 09696	1 - 1 liter	4/5/96			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R Blake	4/5/96 10:10 AM	S. HL	4/5/96 10:10 A				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13 85

CHAIN OF CUSTODY RECORD

№ 002149

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J.W.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BPC 09496	1 - 8oz	4/3/96	7:00			
2	DSE Cake	PC1 09496	1 - 8oz	↓	↓			
3	Incinerator Ash	IASH 09496	1 - 8oz	↓	↓			

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R Blake	4/5/96 10:10 AM	S. H	4/5/96 10:10 A				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 960862
Date Activated: 4/05/96
Date Reported: 4/17/96
PO#: 090279

Project Desc.: Analysis of 12 samples (KWRP c-of-c #2149-2152).

Quan	Item	Each	Total
6	Mercury, total, low level & PCBs	87.12	522.72
6	PCBs	61.50	369.00
4	Solids, total	15.00	60.00

TOTAL DUE $ 951.72

Please indicate Project No. 960862 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 5/17/96.
ORIGINAL INVOICES ARENT TO ACCTS. PAYABLE.

COPY

KAR Laboratories, Inc. 40 Years of Service

KAR*Laboratories, Inc.*

4425 Manchester Road

Kalamazoo MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***960862***
Date Reported :	***04/17/96***
Date Activated :	***04/05/96***
Date Due :	***04/19/96***
Date Validated :	***04/16/96***

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

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 is was received.

If you wish to contact us about this work please mention KAR Project No. 960862. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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 Michigan Department of Public Health and USEPA This report may only be reproduced in full and not without the written consent of **Kalamazoo Water Reclamation Plant**

KARLaboratories, Inc. 40 Years of Service

LABORATORY REPORT

KAR Project No. : *960862*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/17/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

Sample ID : *"Belt Press Cake, BCC 09496"*

Sampled By : *JW of KWRP*
Sample Date : *4/3/96*
Sample Time : *7:00am*

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.18	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
Solids, total	27.60	% by weight	SM Ed18 2540 B	4/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

Sample ID : *"DSE Cake, PC1 09496"*

Sampled By : *JW of KWRP*
Sample Date : *4/3/96*
Sample Time : *7:00am*

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.36	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
Solids, total	54.88	% by weight	SM Ed18 2540 B	4/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960862*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/17/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

Sample ID : *"Incinerator Ash, IASH 09496"*

Sampled By : *JW of KWRP*
Sample Date : *4/3/96*
Sample Time : *7:00am*

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

Sample ID : *"Primary Influent, PIN 09496"*

Sampled By : *JW of KWRP*
Sample Date : *4/3/96*
Sample Time : *7:00am*

Date Received : *4/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960862-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	4/8/96	MSZ	

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LABORATORY REPORT

KAR Project No. : **960862**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/17/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

Sample ID : *"Industrial Influent, IPI 09496"*

Sampled By : *JW of KWRP*
Sample Date : *4/3/96*
Sample Time : *7:00am*

Date Received : *4/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960862-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	4/8/96	MSZ	

Sample ID : *"Tertiary Effluent, TEF 09496"*

Sampled By : *JW of KWRP*
Sample Date : *4/3/96*
Sample Time : *7:00am*

Date Received : *4/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960862-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	4/8/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960862*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/17/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

Sample ID : *"Belt Press Cake, BCC 09696"*

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.22	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
Solids, total	22.97	% by weight	SM Ed18 2540 B	4/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

Sample ID : *"DSE Cake, PC1 09696"*

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.32	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
Solids, total	57.12	% by weight	SM Ed18 2540 B	4/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***960862***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***04/17/96***

Project Description : ***Analysis of 12 samples (KWRP c-of-c #2149-2152).***

Sample ID : ***"Belt Press Cake, BCC 09696"***

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.22	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
Solids, total	22.97	% by weight	SM Ed18 2540 B	4/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

Sample ID : ***"DSE Cake, PC1 09696"***

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0.32	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
Solids, total	57.12	% by weight	SM Ed18 2540 B	4/8/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960862*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/17/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

Sample ID : *"Incinerator Ash, IASH 09696"*

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *solid*
KAR Sample No. : *960862-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7471A	4/10/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	4/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	4/11/96	MSZ	

Sample ID : *"Primary Influent, PIN 09696"*

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960862-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	4/8/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *960862*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *04/17/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2149-2152).*

Sample ID : *"Industrial Influent, IPI 09696"*

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960862-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	4/8/96	MSZ	

Sample ID : *"Tertiary Effluent, TEF 09696"*

Sampled By : *JB of KWRP*
Sample Date : *4/5/96*
Sample Time :

Date Received : *4/5/96*
Sample Type : *aqueous*
KAR Sample No. : *960862-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080	4/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080	4/8/96	MSZ	

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CHAIN OF CUSTODY RECORD

№ 002151

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J. B.

PURPOSE OF ANALYSIS: PCB

	ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
07	1	Belt Press Cake	BCC 09696	1 - 8 oz	4/5/96			X	
08	2	DSE Cake	PCI 09696	1 - 8 oz					
09	3	Incinerator Ash	IASH 09696	1 - 8 oz					
10	4	Tertiary Effluent	TEF 09696	1 - 1 liter					
10	5	Primary Effluent	PIN 09696	1 - 1 liter					
11	6	Industrial Influent	IPI 09696	1 - 1 liter	4/5/96				

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R Blake	4/5/96 10:10 AM	S. Hl	4/5/96 10:10 A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	4/5/96 11:45 A	E. Fowny	4/5/96 11:45a				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002152

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) JOHN W.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 09496	1-8oz	4/3/96	7:00am		X	
2	DSE Cake	PC1 09496	1-8oz	4/3/96			X	
3	Tertiary Effluent	TEF 09496	1-1 Liter				X	
4	Industrial Influent	IPI 09496	1-1 Liter				X	
5	Primary Influent	PIN 09496	1-1 Liter				X	
6	Incinerator Ash	IAS+1 09496	1-8oz	4/3/96			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R Blake	4/5/96 10:10 AM	S. [illegible]	4/5/96 10:10a				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	4/5/96 11:45a	E. Fowny	4/5/96 11:45a				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002150

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J. B.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bale Room Cake	BCC 09696	1 - 8 oz	4/5/96			X	
2	DSC Cake	PC1 09696	1 - 8 oz	↓			X	
3	Incinerator Ash	IASH 09696	1 - 8 oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R Blake	4/5/96 10:10 AM	S. Hl	4/5/96 10:10a				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	4/5/96 11:45a	E. Fowny	4/5/96 11:45a				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002149

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J. W.

PURPOSE OF ANALYSIS: Hg

	ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
01	1	Belt Press Cake	BPC 09496	1 - 8oz	4/3/96	7:00			
02	2	DSC Cake	PC1 09496	1 - 8oz	↓	↓			
03	3	Incinerator Ash	IASH 09496	1 - 8oz	↓	↓			

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
R. Blake	4/5/96 10:10 AM	S. Hl	4/5/96 10:10 A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	4/5/96 11:45 A	E. Young	4/5/96 11:45a				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002170

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	12896 BLC	1 - 4oz	5/7/96	9:00am		X	
2	DSE CAKE	12896 PCI	1 - 4oz		"		X	
3	Incinerator Ash	12896 IASH	1 - 4oz		"		X	
4	Tertiary Eff.	12896 TEF	1 - 1 Liter Amber		"		X	
5	Industrial Inf	12896 IPI	"		"		X	
6	Primary Inf	12896 PIN	"		"		X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	5/9/96 11:15 am	S. Hl	5/9/96 11:15a				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002171

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	12896 BCC	1 - 4oz	5/1/96	7:00 AM		X	2 ml HNO3 ADDED
2	DSE Cake	12896 PCI	1 - 4oz	5/1/96	"		X	"
3	Incinerator Ash	12896 IASH	1 - 4oz	5/1/96	"		X	"

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	5/9/96 11:15 AM	S. [signature]	5/9/96 11:15A				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Belt Press Cake, BCC 12896"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/7/96*
Sample Time : *7:00am*

Date Received : *5/9/96*
Sample Type : *solid*
KAR Sample No. : *961172-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	5/16/96	MTM	
Mercury, total, low level	<0.2	mg/kg dry sample	EPA 7471A	5/17/96	MTM	
Solids, total	26.48	% by weight	SM Ed18 2540 B	5/13/96	PML	
Prep, ECD	Completed		EPA 3510	5/21/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"DSE Cake, PCI 12896"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/7/96*
Sample Time : *7:00am*

Date Received : *5/9/96*
Sample Type : *solid*
KAR Sample No. : *961172-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	5/16/96	MTM	
Mercury, total, low level	0.45	mg/kg dry sample	EPA 7471A	5/17/96	MTM	
Solids, total	55.24	% by weight	SM Ed18 2540 B	5/13/96	PML	
Prep, ECD	Completed		EPA 3510	5/21/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Incinerator Ash, IASH 12896"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/7/96*
Sample Time : *7:00am*

Date Received : *5/9/96*
Sample Type : *solid*
KAR Sample No. : *961172-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	5/16/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	5/17/96	MTM	
Prep, ECD	Completed		EPA 3510	5/21/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Primary Influent, PIN 12896"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/7/96*
Sample Time : *7:00am*

Date Received : *5/9/96*
Sample Type : *aqueous*
KAR Sample No. : *961172-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/14/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Industrial Influent, IPI 12896"*

Sampled By : *RD/JW of KWRP*

Sample Date : *5/7/96*

Sample Time : *7:00am*

Date Received : *5/9/96*

Sample Type : *aqueous*

KAR Sample No. : *961172-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/14/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : **961172**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Tertiary Effluent, TEF 12896"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/7/96*
Sample Time : *7:00am*

Date Received : *5/9/96*
Sample Type : *aqueous*
KAR Sample No. : *961172-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/14/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	5/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/17/96	MSZ	

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CHAIN OF CUSTODY RECORD

№ 002172

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Robert D.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bat Press Cake	13096 BCC	1 - 8oz	5/9/96			x	
2	DSE Cake	13096 DC1	1 - 8oz				x	
3	Incinerator Ash	13096 IASH	1 - 8oz				x	
4	Tertiary Effluent	13096 TEF	1 - 1L				x	
5	Incinerator Inf	13096 IPI	1 - 1L				x	
6	Primary Inf	13096 PIN	1 - 1L				x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	5/9/96 11:15 am	S. Hl	5/9/96 11:15A				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002173

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Robert D.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bell Press Cake	13096 BCC	1 - 8oz	5/9/96			X	
2	DSE Cake	13096 PC1	1 - 8oz	↓			X	
3	Incinerator Ash	13096 IASH	1 - 8oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	5/9/96 11:15 am	S. Hl	5/9/96 11:15a				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Belt Press Cake, BCC 13096"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/9/96*
Sample Time :

Date Received : *5/9/96*
Sample Type : *solid*
KAR Sample No. : *961172-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	5/16/96	MTM	
Mercury, total, low level	<0.2	mg/kg dry sample	EPA 7471A	5/17/96	MTM	
Solids, total	27.09	% by weight	SM Ed18 2540 B	5/13/96	PML	
Prep, ECD	Completed		EPA 3550	5/21/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"DSE Cake, PCI 13096"*

Sampled By : *RD/JW of KWRP*

Sample Date : *5/9/96*

Sample Time :

Date Received : *5/9/96*

Sample Type : *solid*

KAR Sample No. : *961172-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	5/16/96	MTM	
Mercury, total, low level	0 47	mg/kg dry sample	EPA 7471A	5/17/96	MTM	
Solids, total	55 64	% by weight	SM Ed18 2540 B	5/13/96	PML	
Prep, ECD	Completed		EPA 3550	5/21/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : **961172**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Incinerator Ash, IASH 13096"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/9/96*
Sample Time :

Date Received : *5/9/96*
Sample Type : *solid*
KAR Sample No. : *961172-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	5/16/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	5/17/96	MTM	
Prep, ECD	Completed		EPA 3550	5/21/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Primary Influent, PIN 13096"*

Sampled By : *RD/JW of KWRP*

Sample Date : *5/9/96*

Sample Time :

Date Received : *5/9/96*

Sample Type : *aqueous*

KAR Sample No. : *961172-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/16/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Industrial Influent, IPI 13096"*

Sampled By : *RD/JW of KWRP*

Sample Date : *5/9/96*

Sample Time :

Date Received : *5/9/96*

Sample Type : *aqueous*

KAR Sample No. : *961172-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/16/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961172*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *05/23/96*

Project Description : *Analysis of 12 samples (KWRP c-of-c #2170-2173).*

Sample ID : *"Tertiary Effluent, TEF 13096"*

Sampled By : *RD/JW of KWRP*
Sample Date : *5/9/96*
Sample Time :

Date Received : *5/9/96*
Sample Type : *aqueous*
KAR Sample No. : *961172-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	5/16/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	5/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	5/21/96	MSZ	

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CHAIN OF CUSTODY RECORD

№ 002170

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Beet Press Cake	12896 BLC	1 - 4oz	5/9/96	9:00am		X	
2	DSE CAKE	12896 PCI	1 - 4oz		"		X	
3	Incinerator Ash	12896 IASH	1 - 4oz		"		X	
4	Tertiary Eff.	12896 TEF	1 - 1 liter plastic		"		X	
5	Incinerator Inf	12896 IPI	"		"		X	
6	Primary Inf	12896 PIN	"		"		X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	5/9/96 11:15 am	S. [illegible]	5/9/96 11:15a				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	5/9/96 2:00p	Emma Young	5/9/96 2 30pm				

REMARKS:

Form 954 11 13 8

CHAIN OF CUSTODY RECORD

№ 002171

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bell Press Cake	12896 BCC	1 - 4oz	5/1/96	7:00am		x	2 ml HNO_3 ADDED
2	DSC Cake	12896 PCI	1 - 4oz	5/1/96	"		x	"
3	Incinerator Ash	12896 IASH	1 - 4oz	5/1/96	"		x	"

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	5/9/96 11:15 AM	S. Hale	5/9/96 11:15A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hale	5/9/96 2:00P	Emma Jowry	5/9/96 2:30pm				

REMARKS:

Form 954 11-13-8

CHAIN OF CUSTODY RECORD

№ 002172

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Robert D.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bulk Press Cake	13096 BCC	1 - 8 oz	5/9/96			x	
2	DSS Cake	13096 DCI	1 - 8 oz				x	
3	Incinerator Ash	13096 IASH	1 - 8 oz				x	
4	Belting Effluent	13096 TEF	1 - 1 L				x	
5	Incinerator Inf	13096 IPI	1 - 1 L				x	
6	Primary Inf	13096 PIN	1 - 1 L				x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	5/9/96 11:15 am	S. He	5/9/96 11:15a				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. He	5/9/96 2:00p	Emma Young	5/9/96 2:30pm				

REMARKS:

Form 954 11-13-8

CHAIN OF CUSTODY RECORD

№ 002173

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Robert D.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	13096 BCC	1 - 8oz	5/9/96			X	
2	DSF Cake	13096 PCI	1 - 8oz	↓			X	
3	Incinerator ash	13096 IASH	1 - 8oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	5/9/96 11:15 am	S. [illegible]	5/9/96 11:15a				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	5/9/96 2:00p	Emma Lowry	5/9/96 2:30pm				

REMARKS:

Form 954 11-13 8

KARLaboratories, Inc.

4425 Manchester Road
Kalamazoo, MI 49002
Phone 616 381-9666
Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: **961172**
Date Activated: 05/09/96
Date Reported: 05/23/96
PO#: 090279

Project Desc.: Analysis of 12 samples(KWRP C-of-C #2170-2173).

Quan	Item	Each	Total
6	Mercury, total, low level & PCBs (solid)	89.25	535.50
6	PCB Aroclor 1242 (aqueous)	63.00	378.00
4	Solids, total	15.00	60.00

Quoted Price 973.50

TOTAL DUE $ 973.50

Please indicate Project No. 961172 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

COPY

KARLaboratories, Inc. 40 Years of Service

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***961172***
Date Reported :	***05/23/96***
Date Activated :	***05/09/96***
Date Due :	***05/23/96***
Date Validated :	***05/23/96***

Project Description : ***Analysis of 12 samples (KWRP c-of-c #2170-2173).***

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. 961172. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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 Michigan Department of Public Health and USEPA This report may only be reproduced in full and not without the written consent of **Kalamazoo Water Reclamation Plant**

KAR Laboratories, Inc. 40 Years of Service

CHAIN OF CUSTODY RECORD

№ 002181

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Robert DeLoe Sampler

PURPOSE OF ANALYSIS: Naphthalene

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 155916	1 - 1 liter	6/3/96		X		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	6/6/96 2:55 pm	S KL	6/6/96 2:55p				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002182

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R. D.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 15696	1 - 8oz	6/4/96			X	
2	DSC Cake	PCI 15696	↓	↓			X	
3	Incinerator Ash	1ASH 15696	↓	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY. (Signature)	DATE/TIME
[signature]	6/4/96 2:55 pm	S. [illegible]	6/6/96 2:55p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11 13-85

CHAIN OF CUSTODY RECORD

№ 002180

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R.S.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bell Press Cake	BCC 15696	1 - 8 oz	6/4/96			X	
2	DSK Cake	PCI 15696	1 - 8 oz				X	
3	Treating Effluent	TEF 15696	1 - 1 liter				X	
4	Industrial Influent	IPI 15696	1 - 1 liter				X	
5	Primary Influent	PIN 15696	1 - 1 liter				X	
6	Incineration Ash	IASH 15696	1 - 8 oz	6/4/96			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	6/6/96 2:55 pm	S. HL	6/6/96 2:55 p				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002184

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) K. D.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press cake	BCC 15896	1 - 8oz	6/6/96			x	
2	DSE Cake	PCI 15896	1 - "	↓			x	
3	Incinerator Ash	IASH 15896	1 - "	↓			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	6/6/96 2:55 pm	S. He	6/6/96 2:55 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002183

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R.D.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 15896	1 - 8oz	6/6/96			X	
2	DSE Cake	PCI 15896	1 - 8oz	↓			X	
3	Tertiary Effluent	TEF 15896	1 - 1 liter	↓			X	
4	Industrial influent	IPI 15896	↓	↓			X	
5	Primary effluent	PIN 15896	↓	↓			X	
6	Incinerator Ash	IASH 15896	1 - 8oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	6/6/96 2:55 pm	S. Hl	6/6/96 2:55 pm				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

LABORATORY REPORT

KAR Project No. : *961432*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *06/19/96*

Project Description : *Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).*

Sample ID : *"Tertiary Effluent, TEF 15596"*

Sampled By : *RD of KWRP*
Sample Date : *6/3/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, SV BN	Completed		EPA 3510	6/10/96	KAC	
Naphthalene by Method 8270	<5	ug/L	EPA 8270	6/13/96	KTL	

Sample ID : *"Belt Press Cake, BCC 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	6/17/96	MTM	
Mercury, total, low level	<0.2	mg/kg dry sample	EPA 7470A	6/17/96	MTM	
Solids, total	28.45	% by weight	SM Ed18 2540 B	6/7/96	PML	
Prep, ECD	Completed		EPA 3550	6/14/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/17/96	MSZ	

Sample ID : *"DSE Cake, PCI 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	6/17/96	MTM	
Mercury, total, low level	0.4	mg/kg dry sample	EPA 7470A	6/17/96	MTM	
Solids, total	56.52	% by weight	SM Ed18 2540 B	6/7/96	PML	
Prep, ECD	Completed		EPA 3550	6/14/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961432*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *06/19/96*

Project Description : *Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).*

Sample ID : *"DSE Cake, PCI 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/17/96	MSZ	

Sample ID : *"Incinerator Ash, IASH 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	6/17/96	MTM	
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7470A	6/17/96	MTM	
Prep, ECD	Completed		EPA 3550	6/14/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/17/96	MSZ	

Sample ID : *"Tertiary Effluent, TEF 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	6/11/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	6/14/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961432*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *06/19/96*

Project Description : *Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).*

Sample ID : *"Tertiary Effluent, TEF 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/14/96	MSZ	

Sample ID : *"Industrial Effluent, IPI 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	6/11/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/14/96	MSZ	

Sample ID : *"Primary Influent, PIN 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	6/11/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	6/14/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961432*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *06/19/96*

Project Description : *Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).*

Sample ID : *"Primary Influent, PIN 15696"*

Sampled By : *RD of KWRP*
Sample Date : *6/4/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclors, total	NA		EPA 8081	6/14/96	MSZ	

Sample ID : *"Belt Press Cake, BCC 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	6/17/96	MTM	
Mercury, total, low level	<0 2	mg/kg dry sample	EPA 7470A	6/17/96	MTM	
Solids, total	29 18	% by weight	SM Ed18 2540 B	6/7/96	PML	
Prep, ECD	Completed		EPA 3550	6/14/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/17/96	MSZ	

Sample ID : *"DSE Cake, PCI 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	6/17/96	MTM	
Mercury, total, low level	0 4	mg/kg dry sample	EPA 7470A	6/17/96	MTM	
Solids, total	57 82	% by weight	SM Ed18 2540 B	6/7/96	PML	
Prep, ECD	Completed		EPA 3550	6/14/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : **961432**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *06/19/96*

Project Description : *Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).*

Sample ID : *"DSE Cake, PCI 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/17/96	MSZ	

Sample ID : *"Incinerator Ash, IASH 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *solid*
KAR Sample No. : *961432-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	6/17/96	MTM	
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7470A	6/17/96	MTM	
Prep, ECD	Completed		EPA 3550	6/14/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	6/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/17/96	MSZ	

Sample ID : *"Tertiary Effluent, TEF 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	6/11/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	6/14/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961432*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *06/19/96*

Project Description : *Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).*

Sample ID : *"Tertiary Effluent, TEF 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/14/96	MSZ	

Sample ID : *"Industrial Influent, IPI 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	6/11/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/14/96	MSZ	

Sample ID : *"Primary Influent, PIN 15896"*

Sampled By : *RD of KWRP*
Sample Date : *6/6/96*
Sample Time :

Date Received : *6/6/96*
Sample Type : *aqueous*
KAR Sample No. : *961432-13*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	6/11/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	6/14/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	6/14/96	MSZ	

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CHAIN OF CUSTODY RECORD

№ 002184

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R. D.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press cake	BCC 15896	1 - 8oz	6/6/96			X	
2	DSE Cake	PC1 15896	1 - "	↓			X	
3	Incinerator Ash	IASH 15896	1 - "	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	6/6/96 2:55 pm	S. [illegible]	6/6/96 2:55 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	6/6/96 4:00p	D. Grom	6/6/96 4:02				

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002183

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R.D.

PURPOSE OF ANALYSIS: PCB

	ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
58	1	Belt Press Cake	BCC 15896	1 - 8oz	6/6/96			X	
59	2	DSE Cake	PCI 15896	1 - 8oz	↓			X	
11	3	Tertiary Effluent	TEF 15896	1 - 1 liter	↓			X	
8	4	Industrial Influent	IPI 15896	↓	↓			X	
3	5	Primary Effluent	PIN 15896	↓	↓			X	
0	6	Incinerator Ash	IASH 15896	1 - 8oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	6/6/96 2:55 pm	S. [signature]	6/6/96 2:55 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [signature]	6/6/96 4:00p	D. Erwin	6/6/96 4:00				

REMARKS:

Form 954 11-13-95

CHAIN OF CUSTODY RECORD

№ 002180

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) R.S.

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 15696	1 - 8 oz	6/4/96			X	
2	Disk Cake	PCI 15696	1 - 8 oz				X	
3	Thickening Effluent	TEF 15696	1 - 1 liter				X	
4	Industrial Influent	IPI 15696	1 - 1 liter				X	
5	Primary Influent	PIN 15696	1 - 1 liter				X	
6	Incinerator Ash	IASH 15696	1 - 8 oz	6/4/96			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	6/4/96 2:55 pm	S. Hl	6/6/96 2:55 p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	6/6/96 4:00 p	D. Erwin	6/6/96 4:00				

REMARKS:

Form 954 11-13 85

CHAIN OF CUSTODY RECORD

№ 002182

:ITY OF KALAMAZOO
)EPARTMENT OF PUBLIC UTILITIES
415 N. Harrison
alamazoo, Michigan 49007
16-385-8157

SAMPLERS: (Signature) R. D.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 13696	1 - 8oz	6/4/96			X	
2	Dsc Cake	PCI 13696	↓	↓			X	
3	Incinerator Ash	IASH 13696	↓	↓			X	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	6/4/96 2:55 pm	S. H.	6/6/96 2:55p				

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	6/6/96 4:00p	D Erwin	6/6/96 4:00				

EMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002181

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Robert DeLos Santos

PURPOSE OF ANALYSIS: Naphthalene

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 15594b	1 - 1 liter	6/3/96		X		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	6/6/96 2:55 pm	S. [illegible]	6/6/96 2:55p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	6/6/96 4:00p	D. Ervin	6/6/96 4:00				

REMARKS:

Form 954 11-13-85

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 961432
Date Activated: 6/06/96
Date Reported: 6/19/96
PO#: 090279

Project Desc.: Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).

Quan	Item	Each	Total
6	Mercury, total, low level + PCBs	89.25	535.50
1	Naphthalene by Method 8270	67.20	67.20
6	PCB Aroclors, total	63.00	378.00
4	Solids, total	15.00	60.00

TOTAL DUE $ 1,040.70

Please indicate Project No. 961432 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 7/19/96.
ORIGINAL INVOICES ARENT TO ACCTS. PAYABLE.

COPY

KAR Laboratories, Inc. 40 Years of Service

KAR*Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49002

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. : ***961432***
Date Reported : ***06/19/96***
Date Activated : ***06/06/96***
Date Due : ***06/20/96***
Date Validated : ***06/18/96***

Attn : ***Ms. Theresa Wright***

Project Description : ***Analysis of 13 samples (KWRP C-of-C #2180, 2181, 2182, 2183, 2184).***

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. 961432. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. 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

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CHAIN OF CUSTODY RECORD

№ 002187

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19196	1 - 8oz	7/9/96			X	
2	DGE Cake	PCI 19196	↓	↓			↓	
3	Incinerator Ash	IASH 19196	↓	↓			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	7/11/96 11:40 AM	S. He	7/11/96 11:40A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002186

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS. [redacted] Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19396	1- 8oz	7/1/96			X	
2	DSE Cake	PCI 19396	↓	↓			↓	
3	Incinerator Ash	IASH 19396	↓	↓			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	7/11/96 11:40 Am	S. HL	7/11/96 11:40A				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002197

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19396		7/11/96			X	
2	DSE Cake	PCI 19396		↓			↓	
3	Tertiary Effluent	TEF 19396						
4	Industrial Influent	IPI 19396						
5	Primary Influent	PIN 19396						
6	Incinerator Ash	IASH 19396		↓			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
	7/11/96 11:40	S. [illegible]	7/11/96 11:40A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002198

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19196	1 - 8 oz	7/9/96			X	
2	Disk Cake	PCI 19196	1 - 8 oz					
3	Trickling Effluent	TEF 19196	1 - 1 liter					
4	Industrial Effluent	IPI 19196	1 - 1 liter					
5	Primary Influent	PIN 19196	1 - 1 liter					
6	Incinerator Ash	IASH 19196	1 - 8 oz					
								BCC 19196

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY. (Signature)	DATE/TIME	RECEIVED BY. (Signature)	DATE/TIME
[signature]	7/11/96 11:40	S. Hl	7/11/96 11:40A			[illegible]	

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY. (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form-954 11 13 85

LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Belt Press Cake, BCC 19196"*

Sampled By : *GT of KWRP*

Sample Date : *7/9/96*

Sample Time :

Date Received : *7/11/96*

Sample Type : *solid*

KAR Sample No. : *961798-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	7/22/96	MTM	
Mercury, total, low level	<0.2	mg/kg dry sample	EPA 7470A	7/23/96	MTM	
Solids, total	27.13	% by weight	SM Ed18 2540 B	7/12/96	PML	
Prep, ECD	Completed		EPA 3550	7/18/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"DSE Cake, PCI 19196"*

Sampled By : *GT of KWRP*
Sample Date : *7/9/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *solid*
KAR Sample No. : *961798-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	7/22/96	MTM	
Mercury, total, low level	0.39	mg/kg dry sample	EPA 7470A	7/23/96	MTM	
Solids, total	60.60	% by weight	SM Ed18 2540 B	7/12/96	PML	
Prep, ECD	Completed		EPA 3550	7/18/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Incinerator Ash, IASH 19196"*

Sampled By : *GT of KWRP*
Sample Date : *7/9/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *solid*
KAR Sample No. : *961798-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	7/22/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7470A	7/23/96	MTM	
Prep, ECD	Completed		EPA 3550	7/18/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Industrial Influent, IPI 19196"*

Sampled By : *GT of KWRP*

Sample Date : *7/9/96*

Sample Time :

Date Received : *7/11/96*

Sample Type : *aqueous*

KAR Sample No. : *961798-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/16/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Primary Influent, PIN 19196"*

Sampled By : *GT of KWRP*

Sample Date : *7/9/96*

Sample Time :

Date Received : *7/11/96*

Sample Type : *aqueous*

KAR Sample No. : *961798-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/16/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Tertiary Effluent, TEF 19196"*

Sampled By : *GT of KWRP*

Sample Date : *7/9/96*

Sample Time :

Date Received : *7/11/96*

Sample Type : *aqueous*

KAR Sample No. : *961798-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/12/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/16/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Belt Press Cake, BCC 19396"*

Sampled By : *GT of KWRP*
Sample Date : *7/11/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *solid*
KAR Sample No. : *961798-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	7/22/96	MTM	
Mercury, total, low level	<0.2	mg/kg dry sample	EPA 7470A	7/23/96	MTM	
Solids, total	25.16	% by weight	SM Ed18 2540 B	7/12/96	PML	
Prep, ECD	Completed		EPA 3550	7/18/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"DSE Cake, PCI 19396"*

Sampled By : *GT of KWRP*
Sample Date : *7/11/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *solid*
KAR Sample No. : *961798-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	7/22/96	MTM	
Mercury, total, low level	0.39	mg/kg dry sample	EPA 7470A	7/23/96	MTM	
Solids, total	59.29	% by weight	SM Ed18 2540 B	7/12/96	PML	
Prep, ECD	Completed		EPA 3550	7/18/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Incinerator Ash, IASH 19396"*

Sampled By : *GT of KWRP*
Sample Date : *7/11/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *solid*
KAR Sample No. : *961798-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	7/22/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7470A	7/23/96	MTM	
Prep, ECD	Completed		EPA 3550	7/18/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	7/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Industrial Influent, IPI 19396"*

Sampled By : *GT of KWRP*
Sample Date : *7/11/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *aqueous*
KAR Sample No. : *961798-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/12/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/16/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Primary Influent, PIN 19396"*

Sampled By : *GT of KWRP*

Sample Date : *7/11/96*

Sample Time :

Date Received : *7/11/96*

Sample Type : *aqueous*

KAR Sample No. : *961798-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/16/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *961798*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *07/24/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).*

Sample ID : *"Tertiary Effluent, TEF 19396"*

Sampled By : *GT of KWRP*
Sample Date : *7/11/96*
Sample Time :

Date Received : *7/11/96*
Sample Type : *aqueous*
KAR Sample No. : *961798-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	7/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	7/16/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	7/16/96	MSZ	

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KAR*Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : *Ms. Theresa Wright*

KAR Project No. :	***961798***
Date Reported :	***07/24/96***
Date Activated :	***07/11/96***
Date Due :	***07/25/96***
Date Validated :	***07/24/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #2186, 2187, 2198, 2197).***

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. 961798. 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 Michigan Department of Public Health and USEPA. This report may only be reproduced in full and not without the written consent of **Kalamazoo Water Reclamation Plant**.

KARLaboratories, Inc. 40 Years of Service

CHAIN OF CUSTODY RECORD

№ 002187

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19196	1 - 8oz	7/9/96			X	
2	DSE Cake	PCI 19196	↓	↓			↓	
3	Incinerator Ash	IASH 19196	↓	↓			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	7/11/96 11:40 AM	S. He	7/11/96 11:40A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. He	7/11/96 12:20P	J Erwin	7/11/96 12:20pm				

REMARKS:

Form 954 11-13-8

CHAIN OF CUSTODY RECORD

№ 002198

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bell Press Cake	BCC 19196	1 - 8oz	7/1/96			X	
2	Disc Cake	PCI 19196	1 - 8oz					
3	Tertiary Effluent	TEF 19196	1 - 1 liter					
4	Industrial Effluent	IPI 19196	1 - 1 liter					
5	Primary Influent	PIN 19196	1 - 1 liter					
6	Incinerator Ash	IASH 19196	1 - 8oz					

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	7/1/96 11:40	S. [illegible]	7/1/96 11:40A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	7/1/96 12:20p	J. Erom	7/1/96 11:40A				

REMARKS:

Form 954 11-13 E

CHAIN OF CUSTODY RECORD

№ 002186

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS: [redacted] Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19396	1- 8oz	7/11/96			X	
2	DSE Cake	PCI 19396	↓	↓			↓	
3	Incinerator Ash	IASM 19396	↓	↓			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	7/11/96 11:40 Am	S. Hl	7/11/96 11:40A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	7/11/96 12:20p	D. Erwin	7/11/96 11:40A				

REMARKS:

Form 954 11-13 8

CHAIN OF CUSTODY RECORD

№ 002197

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature)

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BCC 19396		7/11/96			X	
2	DSE Cake	PCI 19396		↓			↓	
3	Tertiary Effluent	TEF 19396		↓			↓	
4	Industrial Influent	IPI 19396		↓			↓	
5	Primary Influent	PIN 19396		↓			↓	
6	Incinerator Ash	IASH 19396		↓			↓	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	7/11/96 11:40 AM	S. [signature]	7/11/96 11:40A				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [signature]	7/11/96 12:20p	D. Erwin	7/11/96 12:20pm				

REMARKS:

Form 954 11 13-8

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 961798
Date Activated: 07/11/96
Date Reported: 07/24/96
PO#: 090279

Project Desc.: Analysis of 12 samples(KWRP C-of-C #2186, 2187, 2198, 2197).

Quan	Item	Each	Total
6	Mercury & PCBs	89.25	535.50
6	PCBs	63.00	378.00
4	Solids, total	15.00	60.00

Quoted Price 973.50

TOTAL DUE $ 973.50

Please indicate Project No. 961798 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

COPY

KAR Laboratories, Inc. 40 Years of Service

CHAIN OF CUSTODY RECORD

№ 002089

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Owen Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bulk Press Cake	BPC 21996	Hg	8/6/96			X	
2	DSE Cake	PCI 21996	↓	↓			X	
3	Incinerator Ash	IASH 21996	↓	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	8/8/96 3:55 pm	[illegible]	8/8/96 3:55 pm				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002091

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS (Signature): G. Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press cake	BPC 22196	4 oz	8/8/96			X	
2	DSC Cake	PCI 22196					X	
3	Incinerator Ash	IASH 22196					X	

1 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	3 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
[illegible]	8/8/96 .55	S HC	8/8/96 3 55p				

2 RELINQUISHED BY. (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	4 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

REMARKS

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002088

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS. PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 21996	1 - 1 liter	8/6/96			x	
2	Industrial Influent	IPI 21996	↓	↓			x	
3	Primary Influent	MPI 21996	↓	↓			x	
4	Belt Press Cake	BPC 21996	↓	↓			x	
5	DSE Cake	DSEPC 21996	↓	↓			x	
6	Incinerator Ash	IASH 21996	↓	8/6/96			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY. (Signature)	DATE/TIME
P. Sui	8/8/96 555 pm	SHC	8/8/96 555 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY. (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002090

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 22196	1 - Tube	8/8/96			X	
2	Industrial Influent	IPI 22196	↓	↓			X	
3	Primary Influent	MPI 22196	↓	↓			X	
4	Belt Press Cake	BPC 22196	4 oz	↓			X	
5	DSE Cake	~~PEC~~ PCI 22196	↓	↓			X	
6	Incinerator Ash	IASH 22196	↓	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
P. Smith	8/8/94 355 pm	S. Hill	8/8/96 3:55p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11-13-85

LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Belt Press Cake, BCC 21996"*

Sampled By : *GT of KWRP*

Sample Date : *8/6/96*

Sample Time :

Date Received : *8/8/96*

Sample Type : *solid*

KAR Sample No. : *962093-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	8/20/96	MTM	
Mercury, total, low level	<0.20	mg/kg dry sample	EPA 7470A	8/21/96	MTM	
Solids, total	27.48	% by weight	SM Ed18 2540 B	8/8/96	PML	
Prep, ECD	Completed		EPA 3510	8/12/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"DSE Cake, PCI 21996"*

Sampled By : *GT of KWRP*
Sample Date : *8/6/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *solid*
KAR Sample No. : *962093-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	8/20/96	MTM	
Mercury, total, low level	0.39	mg/kg dry sample	EPA 7470A	8/21/96	MTM	
Solids, total	58.16	% by weight	SM Ed18 2540 B	8/8/96	PML	
Prep, ECD	Completed		EPA 3510	8/12/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Incinerator Ash, IASH 21996"*

Sampled By : *GT of KWRP*
Sample Date : *8/6/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *solid*
KAR Sample No. : *962093-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	8/20/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7470A	8/21/96	MTM	
Prep, ECD	Completed		EPA 3510	8/12/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Industrial Influent, IPI 21996"*

Sampled By : *GT of KWRP*
Sample Date : *8/6/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *aqueous*
KAR Sample No. : *962093-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	8/9/96	KAC	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Primary Influent, PIN 21996"*

Sampled By : *GT of KWRP*
Sample Date : *8/6/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *aqueous*
KAR Sample No. : *962093-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	8/9/96	KAC	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Tertiary Effluent, TEF 21996"*

Sampled By : *GT of KWRP*
Sample Date : *8/6/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *aqueous*
KAR Sample No. : *962093-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	8/9/96	KAC	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Belt Press Cake, BCC 22196"*

Sampled By : *GT of KWRP*
Sample Date : *8/8/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *solid*
KAR Sample No. : *962093-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	8/20/96	MTM	
Mercury, total, low level	<0.20	mg/kg dry sample	EPA 7470A	8/21/96	MTM	
Solids, total	28.76	% by weight	SM Ed18 2540 B	8/8/96	PML	
Prep, ECD	Completed		EPA 3510	8/12/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"DSE Cake, PCI 22196"*

Sampled By : *GT of KWRP*
Sample Date : *8/8/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *solid*
KAR Sample No. : *962093-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	8/20/96	MTM	
Mercury, total, low level	<0.20	mg/kg dry sample	EPA 7470A	8/21/96	MTM	
Solids, total	58.15	% by weight	SM Ed18 2540 B	8/8/96	PML	
Prep, ECD	Completed		EPA 3510	8/12/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Incinerator Ash, IASH 22196"*

Sampled By : *GT of KWRP*
Sample Date : *8/8/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *solid*
KAR Sample No. : *962093-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	8/20/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7470A	8/21/96	MTM	
Prep, ECD	Completed		EPA 3510	8/12/96	KAC	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Industrial Influent, IPI 22196"*

Sampled By : *GT of KWRP*
Sample Date : *8/8/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *aqueous*
KAR Sample No. : *962093-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	8/9/96	KAC	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/19/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Primary Influent, PIN 22196"*

MPI 22196

Sampled By : *GT of KWRP*
Sample Date : *8/8/96*
Sample Time :

Date Received : *8/8/96*
Sample Type : *aqueous*
KAR Sample No. : *962093-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	8/9/96	KAC	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	8/21/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/21/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962093*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *08/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).*

Sample ID : *"Tertiary Effluent, TEF 22196"*

Sampled By : *GT of KWRP*

Sample Date : *8/8/96*

Sample Time :

Date Received : *8/8/96*

Sample Type : *aqueous*

KAR Sample No. : *962093-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	8/9/96	KAC	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	8/19/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	8/19/96	MSZ	

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KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. : ***962093***
Date Reported : ***08/22/96***
Date Activated : ***08/08/96***
Date Due : ***08/22/96***
Date Validated : ***08/22/96***

Attn : ***Ms. Theresa Wright***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #2088, 2089, 2090 & 2091).***

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. 962093. 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

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KAR Laboratories, Inc. 40 Years of Service

CHAIN OF CUSTODY RECORD

№ 002089

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Lowen Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	~~BPC~~ 2RC96	8g	8/8/96			X	
2	DSE Cake	~~PCC~~ PC1 2RC96					X	
3	Incinerator Ash	1ASH 2RC96					X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	8/8/96 355 pm	S. [signature]	8/8/96 355 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [signature]	8/8/96 5:20p	C. Fowry	8/8/96 5:20pm				

REMARKS:

Form 954 11-13 E

CHAIN OF CUSTODY RECORD

№ 002088

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 21996	1 - 1 liter	8/6/96			x	
2	Incinerator Influent	IPI 21996	↓	↓			x	
3	Primary Influent	MPI 21996	↓	↓			x	
4	Belt Press Cake	BPC 21996	1 qt	↓			x	
5	DSE Cake	PC1 21996	↓	↓			x	
6	Incinerator Ash	IASH 21996	↓	8/6/96			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
P. Sunly	8/8/96 355 pm	S. Ale	8/8/96 355 pm				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Ale	8/8/96 5:20p		8/8/96 5:20 pm				

REMARKS:

Form 954 11 13

CHAIN OF CUSTODY RECORD

№ 002090

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Tertiary Effluent	TEF 22196	1 - Tube	8/8/96			x	
2	Industrial Influent	IPI 22196	↓	↓			x	
3	Primary Influent	MPI 22196	↓	↓			x	
4	Belt Press Cake	~~BPC~~ 22196	4 oz	↓			x	
5	DSE Cake	~~PCE~~ PCI 22196	↓	↓			x	
6	Incinerator Ash	IASH 22196	↓	↓			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
P. Smith	8/8/94 355 pm	S. Hl	8/8/96 3:55p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	8/8/96 5:20p		8/8/96 5:20pm				

REMARKS:

Form 954 11-13-

CHAIN OF CUSTODY RECORD

№ 002091

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) G. Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press cake	BPC 22196	4 oz	8/8/96			X	
2	DSE Cake	PCT 22196					X	
3	Incinerator Ash	IASH 22196					X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	8/8/96 355 pm	S. Hl	8/8/96 3:55p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Hl	8/8/96 5:20p	E. Lowry	8/8/96 5:20pm				

REMARKS:

Form 954 11-13-

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 962093
Date Activated: 08/08/96
Date Reported: 08/22/96
PO#: 090279

Project Desc.: Analysis of 12 samples(KWRP C-of-C #2088, 2089, 2090, & 2091).

Quan	Item	Each	Total
6	Mercury & PCBs	89.25	535.50
6	PCBs	63.00	378.00
4	Solids, total	15.00	60.00

Quoted Price 973.50

TOTAL DUE $ 973.50

Please indicate Project No. 962093 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

KAR Laboratories, Inc. 40 Years of Service

COPY

CHAIN OF CUSTODY RECORD

№ 002175

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	~~BPC~~ BCC 25096 TW	1 - 8oz	9/6/96			X	
2	DSE Cake	~~PCC~~ PC1 25096 TW	1 - 8oz	9/6/96			X	
3	Incinerator Ash	IA SH 25096	1 - 8oz	9/6/96			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	9/6/96 2:35 pm	S. Hf	9/6/96 2:35p				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13 85

CHAIN OF CUSTODY RECORD

№ 002168

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Surf	MPI 25096	1 - 1 liter	9/6/96				
2	Industrial Surf	IPI 25096	1 - "	↓				
3	Terrian Effluent	TEF 25096 TW	1 - "					
4	Bell Press cake	~~BPC~~ BCC 25096 TW	1 - Bag					
5	DSE cake	~~DCE~~ PCI 25096 TW	1 - "					
6	Incinerator Ash	IASH 25096 TW	1 - "					

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	9/6/96 2:35 pm	S. Hl	9/6/96 2:35p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002174

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Butt Press Cake	BPC 24996	1 - 8oz	9/5/96			<	
2	DSE Cake	PCC 24996	1 - 8oz	↓			x	
3	Incinerator Ash	IA 24996	1 - 8oz	↓			x	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	9/6/96 2:35	S. [illegible]	9/6/96 2:35p				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11 13 85

CHAIN OF CUSTODY RECORD

№ 002167

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION, & REMARKS
1	Primary inf	MPI 24996	1 - liter	9/5/96				
2	Ind influent	IPI 24996	1 - liter					
3	Tertiary effluent	TEF 24996 TW	1 - liter					
4	Belt press cake	~~BPC~~ BCC 24996	1 - Bag					
5	DSE cake	~~PCC~~ PCI 24996 TW	1 - Box					
6	Incinerator Ash	IASH 24996	1 - Box					

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	9/6/96 2:35 pm	[signature]	9/6/96 2:35p				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**

REMARKS:

Form 954 11-13-85

LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : ***Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).***

Sample ID : *"Primary Influent, MPI 24996"*

Sampled By : *GT of KWRP*

Sample Date : *9/5/96*

Sample Time :

Date Received : *9/6/96*

Sample Type : *aqueous*

KAR Sample No. : *962398-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Ind. Influent, IPI 24996"*

Sampled By : *GT of KWRP*
Sample Date : *9/5/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *aqueous*
KAR Sample No. : *962398-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : ***Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).***

Sample ID : *"Tertiary Effluent, TEF 24996"*

Sampled By : *GT of KWRP*
Sample Date : *9/5/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *aqueous*
KAR Sample No. : *962398-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Belt Press Cake, BPC 24996"*

Sampled By : *GT of KWRP*
Sample Date : *9/5/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *solid*
KAR Sample No. : *962398-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	9/17/96	DBL	
Mercury, total, low level	<0 17	mg/kg dry sample	EPA 7471A	9/18/96	DBL	
Solids, total	28 88	% by weight	SM Ed18 2540 B	9/12/96	PML	
Prep, ECD	Completed		EPA 3550	9/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : ***Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).***

Sample ID : *"DSE Cake, PCC 24996"*

Sampled By : *GT of KWRP*

Sample Date : *9/5/96*

Sample Time :

Date Received : *9/6/96*

Sample Type : *solid*

KAR Sample No. : *962398-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	9/17/96	DBL	
Mercury, total, low level	0.36	mg/kg dry sample	EPA 7471A	9/18/96	DBL	
Solids, total	56.03	% by weight	SM Ed18 2540 B	9/12/96	PML	
Prep, ECD	Completed		EPA 3550	9/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : ***Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).***

Sample ID : ***"Incinerator Ash, IA 24996"***

Sampled By : *GT of KWRP*
Sample Date : *9/5/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *solid*
KAR Sample No. : *962398-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	9/17/96	DBL	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	9/18/96	DBL	
Prep, ECD	Completed		EPA 3550	9/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Primary Influent, MPI 25096"*

Sampled By : *GT of KWRP*
Sample Date : *9/6/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *aqueous*
KAR Sample No. : *962398-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Industrial Influent, IPI 25096"*

Sampled By : *GT of KWRP*

Sample Date : *9/6/96*

Sample Time :

Date Received : *9/6/96*

Sample Type : *aqueous*

KAR Sample No. : *962398-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/10/96	SAS	
PCB Aroclor 1016	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1248	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Tertiary Effluent, TEF 25096"*

Sampled By : *GT of KWRP*

Sample Date : *9/6/96*

Sample Time :

Date Received : *9/6/96*

Sample Type : *aqueous*

KAR Sample No. : *962398-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	9/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	9/12/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/12/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Belt Press Cake, BPC 25096"*

Sampled By : *GT of KWRP*
Sample Date : *9/6/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *solid*
KAR Sample No. : *962398-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	9/17/96	DBL	
Mercury, total, low level	<0.18	mg/kg dry sample	EPA 7471A	9/18/96	DBL	
Solids, total	28.18	% by weight	SM Ed18 2540 B	9/12/96	PML	
Prep, ECD	Completed		EPA 3550	9/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"DSE Cake, PCC 25096"*

Sampled By : *GT of KWRP*
Sample Date : *9/6/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *solid*
KAR Sample No. : *962398-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	9/17/96	DBL	
Mercury, total, low level	0.26	mg/kg dry sample	EPA 7471A	9/18/96	DBL	
Solids, total	56.89	% by weight	SM Ed18 2540 B	9/12/96	PML	
Prep, ECD	Completed		EPA 3550	9/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962398*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *09/20/96*

Project Description : *Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).*

Sample ID : *"Incinerator Ash, IA 25096"*

Sampled By : *GT of KWRP*
Sample Date : *9/6/96*
Sample Time :

Date Received : *9/6/96*
Sample Type : *solid*
KAR Sample No. : *962398-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	9/17/96	DBL	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	9/18/96	DBL	
Prep, ECD	Completed		EPA 3550	9/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	9/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	9/18/96	MSZ	

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KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. :	***962398***
Date Reported :	***09/20/96***
Date Activated :	***09/06/96***
Date Due :	***09/20/96***
Date Validated :	***09/19/96***

Attn : ***Ms. Theresa Wright***

Project Description : ***Analysis of 12 samples (KWRPC-of-C #2167, 2168, 2174, 2175).***

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. 962398. 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

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CHAIN OF CUSTODY RECORD

№ 002167

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary inf	MPI 24996	1 - Filter	9/5/96				
2	Ind influent	IPI 24996	1 - Filter					
3	Tertiary effluent	TEF 24996	1 - Filter					
4	Belt Press Filter	BPC 24996	1 - Bag					
5	DSE Cake	PCC 24996	1 - Box					
6	Incinerator Ash	IA 24996	1 - Box					

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	9/6/96 2:35 pm	S. Al	9/6/96 2:35p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. Al	9/6/96 3:45p						

REMARKS:

Form 954 11-13 8

CHAIN OF CUSTODY RECORD

№ 002174

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bulb Press Cake	BPC 24996	1 - 8oz	9/5/96			X	
2	Disk Cake	RCC 24996	1 - 8oz	↓			X	
3	Incinerator Ash	IA 24996	1 - 8oz	↓			X	

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	9/6/96 2:35	S. [illegible]	9/6/96 2:35p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	9/6/96 3:45p						

REMARKS:

Form 954 11-13-8

CHAIN OF CUSTODY RECORD

№ 002168

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: PCB

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Inf	MPI 2SC96	1 - 1 liter	9/6/96				
2	Industrial Inf	IPI 2SC96	1 - "	↓				
3	Tertiary Effluent	TEF 2SC96	1 - "	↓				
4	Belt Press cake	BPC 2SC96	1 - Bag	↓				
5	DSE cake	PCC 2SC96	1 - "	↓				
6	Incinerator ash	IA 2SC96	1 - "	↓				

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	9/6/96 2:35 pm	S. [signature]	9/6/96 2:35p				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [signature]	9/6/96 3:45p						

REMARKS:

Form 954 11-13-8

CHAIN OF CUSTODY RECORD

№ 002175

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) Gwen Taylor

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Bulk Press Cake	BPC 25096	1 - 8oz	9/4/96			X	
2	DSE Cake	PCC 25096	1 - 8oz	9/4/96			X	
3	Incinerator Ash	IA 25096	1 - 8oz	9/4/96			X	

	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
1	[signature]	9/4/96 2:35 pm	[signature]	9/6/96 2:35p
2	[signature]	9/6/96 3:45p		
3				
4				

REMARKS:

Form 954 11-13-8

KAR *Laboratories, Inc.*

4425 Manchester Road
Kalamazoo, MI 49001
Phone 616 381-9666
Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 962398
Date Activated: 09/06/96
Date Reported: 09/20/96
PO#: 090279

Project Desc.: Analysis of 12 samples(KWRP C-of-C #2167, 2168, 2174, & 2175).

Quan	Item	Each	Total
6	Mercury & PCBs	89.25	535.50
6	PCBs	63.00	378.00
4	Solids, total	15.00	60.00

Quoted Price 973.50

TOTAL DUE $ 973.50

Please indicate Project No. 962398 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

COPY

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KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 962698
Date Activated: 10/04/96
Date Reported: 10/17/96
PO#: 090279

Project Desc.: Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).

Quan	Item	Each	Total
6	Mercury, total, low level & PCB Aroclors, total	89.25	535.50
6	PCB Aroclors, total	63.00	378.00
4	Solids, total	15.00	60.00

TOTAL DUE $ 973.50

Please indicate Project No. 962698 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 11/16/96.
ORIGINAL INVOICES ARENT TO ACCTS. PAYABLE.

COPY

KAR Laboratories, Inc. 40 Years of Service

LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Tertiary Effluent, TEF 27696"*

Sampled By : *GT of KWRP*
Sample Date : *10/2/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *aqueous*
KAR Sample No. : *962698-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	10/7/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/9/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Industrial Influent, IPI 27696"*

Sampled By : *GT of KWRP*
Sample Date : *10/2/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *aqueous*
KAR Sample No. : *962698-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	10/7/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/9/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***962698***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***10/17/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).***

Sample ID : ***"Primary Influent, MPI 27696"***

Sampled By : *GT of KWRP*
Sample Date : *10/2/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *aqueous*
KAR Sample No. : *962698-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	10/7/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/9/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***962698***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***10/17/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).***

Sample ID : ***"Belt Press Cake, BPC 27696"***

Sampled By : *GT of KWRP*
Sample Date : *10/2/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *solid*
KAR Sample No. : *962698-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	10/14/96	MTM	
Mercury, total, low level	0.36	mg/kg dry sample	EPA 7470A	10/15/96	MTM	
Solids, total	29.14	% by weight	SM Ed18 2540 B	10/7/96	PML	
Prep, ECD	Completed		EPA 3550	10/10/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"DSE Cake, PCI 27696"*

Sampled By : *GT of KWRP*
Sample Date : *10/2/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *solid*
KAR Sample No. : *962698-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	10/14/96	MTM	
Mercury, total, low level	0.55	mg/kg dry sample	EPA 7470A	10/15/96	MTM	
Solids, total	58.96	% by weight	SM Ed18 2540 B	10/7/96	PML	
Prep, ECD	Completed		EPA 3550	10/10/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Incinerator Ash, IASH 27696"*

Sampled By : *GT of KWRP*
Sample Date : *10/2/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *solid*
KAR Sample No. : *962698-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	10/14/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7470A	10/15/96	MTM	
Prep, ECD	Completed		EPA 3550	10/10/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Tertiary Effluent, TEF 27896"*

Sampled By : *GT of KWRP*
Sample Date : *10/4/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *aqueous*
KAR Sample No. : *962698-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	10/7/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/9/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Industrial Influent, IPI 27896"*

Sampled By : *GT of KWRP*
Sample Date : *10/4/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *aqueous*
KAR Sample No. : *962698-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	10/7/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/9/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Primary Influent, MPI 27896"*

Sampled By : *GT of KWRP*
Sample Date : *10/4/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *aqueous*
KAR Sample No. : *962698-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	10/7/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	10/9/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/9/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"Belt Press Cake, BPC 27896"*

Sampled By : *GT of KWRP*
Sample Date : *10/4/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *solid*
KAR Sample No. : *962698-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	10/14/96	MTM	
Mercury, total, low level	0.15	mg/kg dry sample	EPA 7470A	10/15/96	MTM	
Solids, total	31.95	% by weight	SM Ed18 2540 B	10/7/96	PML	
Prep, ECD	Completed		EPA 3550	10/10/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *962698*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *10/17/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).*

Sample ID : *"DSE Cake, PCI 27896"*

Sampled By : *GT of KWRP*
Sample Date : *10/4/96*
Sample Time :

Date Received : *10/4/96*
Sample Type : *solid*
KAR Sample No. : *962698-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	10/14/96	MTM	
Mercury, total, low level	0.54	mg/kg dry sample	EPA 7470A	10/15/96	MTM	
Solids, total	57.02	% by weight	SM Ed18 2540 B	10/7/96	PML	
Prep, ECD	Completed		EPA 3550	10/10/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/11/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***962698***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***10/17/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).***

Sample ID : ***"Incinerator Ash, IASH 27896"***

Sampled By : ***GT of KWRP***
Sample Date : ***10/4/96***
Sample Time :

Date Received : ***10/4/96***
Sample Type : ***solid***
KAR Sample No. : ***962698-12***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	10/14/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7470A	10/15/96	MTM	
Prep, ECD	Completed		EPA 3550	10/10/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	10/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	10/11/96	MSZ	

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CHAIN OF CUSTODY RECORD

3008

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) Gwen Taylor

PRIORITY ☐ OTHER –

NORMAL ☑

SEND RESULTS TO: T.W.

PARAMETERS REQUESTED: Hg

SPECIAL DETECTION LIMITS:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB
1	Belt Press Cake		BPC 27896	1 - 8oz	10/4/96	: AM PM		
2	PSC Cake		PCI 27896	1 - 8oz	10/4/96	: AM PM		
3	Incinerator Ash		IASH 27896	1 - 8oz	10/4/96	: AM PM		
					10/4/96	: AM PM		
					/ /	: AM PM		
					/ /	: AM PM		

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY	X	CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY: (Signature)	DATE/TIME	2 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME 10/4/96 2:00 pm	4 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

3011

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☐ OTHER –

NORMAL ☑

SEND RESULTS TO: T. W.

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: PCB's / SPECIAL DETECTION LIMITS
1	Test Eff		TEF 27896	1 - 1 liter	10/4/96	: AM PM			
2	Industrial Inf		IPI 27896	↓	10/4/96	: AM PM			
3	Primary Inf		MPI 27896	↓	10/4/96	: AM PM			
4	Bob Pres Cake		BPC 27896	1 - 8 oz	10/4/96	: AM PM			
5	DSE Cake		PCI 27896	↓	10/4/96	: AM PM			
6	Incinerator Ash		IASH 27896	↓	10/4/96	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB s, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
2 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
4 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

CHAIN OF CUSTODY RECORD

3010

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) Gwen Taylor

PRIORITY ☐ NORMAL ☒
OTHER –

SEND RESULTS TO: T. W.

PARAMETERS REQUESTED: Hg

SPECIAL DETECTION LIMITS:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	Belt Press Cake		BPC 27696	1 - 8oz	10/8/96	: AM PM			
2	DSC Cake		PC1 27696	1 - 8oz	10/8/96	: AM PM			
3	Incinerator Ash		IASH 27696	1 - 8oz	10/8/96	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY	X	CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D.O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY: (Signature)	DATE/TIME	2 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME 10/8/96 2:40 pm	4 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

3009

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☐ NORMAL ☒
OTHER –

SEND RESULTS TO: T.W.

PARAMETERS REQUESTED: PCB's, total

SPECIAL DETECTION LIMITS.

ITEM NUMBER	SAMPLE ID	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB
1	Tertiary Effluent		TEF 276 96	1 - 1 liter	10/7/96	: AM PM		
2	Industrial Inf		IPI 276 96	1 - 1 liter	10/7/96	: AM PM		
3	Primary Influent		MPI 276 96	1 - 1 liter	10/7/96	: AM PM		
4	Belt Press Cake		BPC 276 96	1 - 8 oz	10/7/96	: AM PM		
5	DSE Cake		PCI 276 96	1 - 8 oz	10/7/96	: AM PM		
6	Incinerator Ash		~~FFA~~ IASH 276 96	1 - 8 oz	10/7/96	: AM PM		

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB s, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME 10/7/96 12:12	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 10/7/96 12:12 PM	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo MI 49001

Phone 616 381 9666

Fax 616 381 9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. : ***962698***
Date Reported : ***10/17/96***
Date Activated : ***10/04/96***
Date Due : ***10/18/96***
Date Validated : ***10/17/96***

Attn : ***Ms. Theresa Wright***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3008, 3009, 3010, 3011).***

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. 962698. 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,

William G. Rauch for

Michael J. Jaeger
Director of Laboratories

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KAR Laboratories, Inc. 40 Years of Service

CHAIN OF CUSTODY RECORD

3008

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) Gwen Taylor

PRIORITY ☐ OTHER –

NORMAL ☑

SEND RESULTS TO: T.W.

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: Hg / SPECIAL DETECTION LIMITS:
1	Belt Press Cake		BPC 27296	1 - 8oz	10/4/96	: AM PM			
2	PSC Cake		PCI 27296	1 - 8oz	10/4/96	: AM PM			
3	Incinerator Ash		IASH 27296	1 - 8oz	10/4/96	: AM PM			
					10/4/96	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		X MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D.O.		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

3010

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature) Gwen Taylor

PRIORITY ☐ OTHER –

NORMAL ☒

SEND RESULTS TO. T. W.

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED Hg / SPECIAL DETECTION LIMITS.
1	Belt Press Cake		~~BPC~~ BCC 27596 TW	1 - 8 oz	10/8/96	: AM PM			
2	DSC Cake		PCI 27596	1 - 8 oz	10/8/96	: AM PM			
3	Incinerator Ash		IASH 27596	1 - 8 oz	10/8/96	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		X MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 10/8/96 pm	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

CHAIN OF CUSTODY RECORD

3011

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☐ OTHER – NORMAL ☑

SEND RESULTS TO: T. W.

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: PCB's / SPECIAL DETECTION LIMITS
1	Test. Eff		TEF 27896	1 - 1 liter	10/4/96	: AM PM			
2	Industrial Inf		IPI 27896	↓	10/4/96	: AM PM			
3	Primary Inf		MPI 27896	↓	10/4/96	: AM PM			
4	Bob Pres Cake		~~BPC~~ BCC 27896 TW	1 - 8 oz	10/4/96	: AM PM			
5	DSE Cake		PCI 27896	↓	10/4/96	: AM PM			
6	Incinerator Ash		IASH 27896	↓	10/4/96	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB's TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	3 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
2 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME	4 RELINQUISHED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1-96

CHAIN OF CUSTODY RECORD

3009

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☐ OTHER – NORMAL ☒

SEND RESULTS TO: T.W.

PARAMETERS REQUESTED: PCB's, total

SPECIAL DETECTION LIMITS

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	Tertiary Effluent		TEF 27696	1 - 1 liter	10/7/96	: AM PM			
2	Industrial Inf		IPI 27696	1 - 1 liter	10/7/96	: AM PM			
3	Primary Influent		MPI 27696	1 - 1 liter	10/7/96	: AM PM			
4	Belt Press Cake		~~BPC~~ BCC 27696 TW	1 - 8 oz	10/7/96	: AM PM			
5	DSE Cake		PCI 27696	1 - 8 oz	10/7/96	: AM PM			
6	Incinerator Ash		~~TAA~~ IASH 27696	1 - 8 oz	10/7/96	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB s TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 10/7/96 2:12 pm	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

KAR Laboratories, Inc.
4425 Manchester Road
Kalamazoo, MI 49002

(616) 381-9666

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn : ***Mr. Ken Leanin***

KAR Project No. :	***960045***
Date Reported :	***01/18/96***
Date Activated :	***01/04/96***
Date Due :	***01/18/96***
Date Validated :	***01/18/96***

Project Description : ***Analysis of six samples (KWRP C-of-C #2079 & 2080).***

Dear Client,

This laboratory report represents KAR Laboratories' analysis of samples associated with the above-referenced project. Unless otherwise stated (under "Comments" heading) all tests were performed within the maximum allowable holding times, have met or exceeded QC requirements and results represent the samples as they were received.

In the event that you need to contact us about this work please mention KAR Project No. 960045. To arrange additional sampling or testing please contact our Client Services Manager, Julie Addy. If you have a question regarding quality assurance please contact William Rauch.

Thank you for this 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 Michigan Department of Public Health and USEPA This report may only be reproduced in full and not without the written consent of **Kalamazoo Water Reclamation Plant**

ANALYTICAL REPORT

KAR Project No. : *960045*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/18/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2079 & 2080).*

Sample ID : *"Primary Influent, PIN00496"*

Sampled By : *JW of KWRP*

Sample Date : *1/4/96*

Sample Time :

Date Received : *1/4/96*

Sample Type : *aqueous*

KAR Sample No. : *960045-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0 1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1221	<0 1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1232	<0 1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1242	<0 1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1254	<0 1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1260	<0 1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/8/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960045*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/18/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2079 & 2080).*

Sample ID : *"Industrial Influent, II00496"*

Sampled By : *JW of KWRP*

Sample Date : *1/4/96*

Sample Time :

Date Received : *1/4/96*

Sample Type : *aqueous*

KAR Sample No. : *960045-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/8/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960045*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/18/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2079 & 2080).*

Sample ID : *"Tertiary Effluent, TE00496"*

Sampled By : *JW of KWRP*

Sample Date : *1/4/96*

Sample Time :

Date Received : *1/4/96*

Sample Type : *aqueous*

KAR Sample No. : *960045-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
PCB Aroclor 1016	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8080A	1/8/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/8/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960045*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/18/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2079 & 2080).*

Sample ID : *"Belt Press Cake, BPC00496"*

Sampled By : *JW of KWRP*

Sample Date : *1/4/96*

Sample Time :

Date Received : *1/4/96*

Sample Type : *solid*

KAR Sample No. : *960045-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0 1	mg/kg dry sample	EPA 7471A	1/10/96	DBL	
Solids, total	27 69	% by weight	SM Ed18 2540 B	1/4/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/11/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

ANALYTICAL REPORT

KAR Project No. : *960045*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/18/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2079 & 2080).*

Sample ID : *"DSE Cake, DSE00496"*

Sampled By : *JW of KWRP* PCL JW

Sample Date : *1/4/96*

Sample Time :

Date Received : *1/4/96*

Sample Type : *solid*

KAR Sample No. : *960045-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	0 38	mg/kg dry sample	EPA 7471A	1/10/96	DBL	
Solids, total	58 62	% by weight	SM Ed18 2540 B	1/4/96	PML	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/11/96	MSZ	

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ANALYTICAL REPORT

KAR Project No. : *960045*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *01/18/96*

Project Description : *Analysis of six samples (KWRP C-of-C #2079 & 2080).*

Sample ID : *"Incinerator Ash, IA00496"*

Sampled By : *JW of KWRP*

Sample Date : *1/4/96*

Sample Time :

Date Received : *1/4/96*

Sample Type : *solid*

KAR Sample No. : *960045-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Mercury, total, low level	<0.05	mg/kg	EPA 7471A	1/10/96	DBL	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8080A	1/11/96	MSZ	
PCB Aroclors, total	NA		EPA 8080A	1/11/96	MSZ	

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KAR Laboratories, Inc.

(616) 381-9666

CHAIN OF CUSTODY RECORD

№ 002079

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) John W.

PURPOSE OF ANALYSIS: PCB's

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Primary Influent	PIN 004196	1 - 1L	1/4/96			X	KWRP
2	Incinerator Inf	IPI 004196	1 - 1L				X	"
3	Tertiary Eff	TE 004196	1 - 1L				X	"
4	Belt Press Cake	BPC 004196	1 - 8oz				X	"
5	DSE Cake	DSE 004196	1 - 8oz				X	"
6	Incinerator Ash	IA 004196	1 - 8oz				X	"

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	1/4/96 10:40 am	[signature]	1/4/96 10:40				
2 RELINQUISHED BY: (Signature)	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**	**4 RELINQUISHED BY: (Signature)**	**DATE/TIME**	**RECEIVED BY: (Signature)**	**DATE/TIME**
[signature]	1/4/96 11:07						

REMARKS:

Form 954 11-13-85

CHAIN OF CUSTODY RECORD

№ 002080

CITY OF KALAMAZOO
DEPARTMENT OF PUBLIC UTILITIES
1415 N. Harrison
Kalamazoo, Michigan 49007
616-385-8157

SAMPLERS: (Signature) J.W.

PURPOSE OF ANALYSIS: Hg

ITEM NUMBER	SAMPLE I.D.	SAMPLE NUMBER	NUMBER & SIZE OF CONTAINER	DATE	TIME	COMP	GRAB	SAMPLE LOCATION, DESCRIPTION & REMARKS
1	Belt Press Cake	BPC 00496	1 - Poly	1/4/96			X	KWRP
2	DSE Cake	DSE 00496	1 - Poly	1/4/96			X	"
3	Incinerator Ash	IA 00496	1 - Poly	1/4/96			X	"

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	3 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[illegible]	1/4/96 10:40 AM	S. [illegible]	1/4/96 10:40				

2 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
S. [illegible]	1/4/96 11:07						

REMARKS:

Form 954 11-13-85

Joe, Please bill to 590-1225-01-657-6600

Thanks,
TW.

KARLaboratories, Inc.

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 963379
Date Activated: 12/05/96
Date Reported: 12/19/96
PO#: 090279

Project Desc.: Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).

Quan	Item	Each	Total
6	Mercury, total, low level & PCB's	89.25	535.50
3	PCB Aroclor total	63.00	189.00
4	Solids, total	15.00	60.00
		SUBTOTAL	784.50
			784.50
			0.00
			784.50
		TOTAL DUE $	784.50

Please indicate Project No. 963379 on check stub or voucher.

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 1/18/97.
ORIGINAL INVOICES ARE SENT TO ACCTS. PAYABLE.

COPY

KARLaboratories, Inc.
40 Years of Service

LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Tertiary Effluent, TEF 33896"*

Sampled By : *GT of KWRP*
Sample Date : *12/3/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *aqueous*
KAR Sample No. : *963379-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Industrial Influent, IPI 33896"*

Sampled By : *GT of KWRP*

Sample Date : *12/3/96*

Sample Time :

Date Received : *12/5/96*

Sample Type : *aqueous*

KAR Sample No. : *963379-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Primary Influent, MPI 33896"*

Sampled By : *GT of KWRP*

Sample Date : *12/3/96*

Sample Time :

Date Received : *12/5/96*

Sample Type : *aqueous*

KAR Sample No. : *963379-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/10/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Belt Press Cake, BPC 33896"*

Sampled By : *GT of KWRP*
Sample Date : *12/3/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *solid*
KAR Sample No. : *963379-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	12/12/96	DBL	
Mercury, total, low level	0 17	mg/kg dry sample	EPA 7471A	12/12/96	DBL	
Solids, total	28 26	% by weight	SM Ed18 2540 B	12/9/96	PML	
Prep, ECD	Completed		EPA 3550	12/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclors, total	NA		EPA 8081	12/18/96	MSZ	

Sample is being retaken
re-run - 12/17/96 m

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LABORATORY REPORT

KAR Project No. : **963379**

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"DSE Cake, PCI 33896"*

Sampled By : *GT of KWRP*
Sample Date : *12/3/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *solid*
KAR Sample No. : *963379-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	12/12/96	DBL	
Mercury, total, low level	0 38	mg/kg dry sample	EPA 7471A	12/12/96	DBL	
Solids, total	57 42	% by weight	SM Ed18 2540 B	12/9/96	PML	
Prep, ECD	Completed		EPA 3550	12/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclors, total	NA		EPA 8081	12/18/96	MSZ	

Sample is being re-taken
and re-run — as part of BCC.
TW
12-17-96

DSE Bldg process not on line

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LABORATORY REPORT

KAR Project No. : ***963379***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***12/19/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).***

Sample ID : ***"Incinerator Ash, IASH 33896"***

Sampled By : *GT of KWRP*
Sample Date : *12/3/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *solid*
KAR Sample No. : *963379-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	12/12/96	DBL	
Mercury, total, low level	<0 05	mg/kg dry sample	EPA 7471A	12/12/96	DBL	
Prep, ECD	Completed		EPA 3550	12/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	Sample analyzed past max holding time result is approx
PCB Aroclors, total	NA		EPA 8081	12/18/96	MSZ	

Sample is being re-taken and re-run for 12-17-96 RW

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Tertiary Effluent, TEF 33996"*

Sampled By : *GT of KWRP*

Sample Date : *12/4/96*

Sample Time :

Date Received : *12/5/96*

Sample Type : *aqueous*

KAR Sample No. : *963379-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/11/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Industrial Influent, IPI 33996"*

Sampled By : *GT of KWRP*
Sample Date : *12/4/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *aqueous*
KAR Sample No. : *963379-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/11/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Primary Influent, MPI 33996"*

Sampled By : *GT of KWRP*

Sample Date : *12/4/96*

Sample Time :

Date Received : *12/5/96*

Sample Type : *aqueous*

KAR Sample No. : *963379-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	12/11/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	12/17/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/17/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Belt Press Cake, BPC 33996"*

Sampled By : *GT of KWRP*
Sample Date : *12/4/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *solid*
KAR Sample No. : *963379-10*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	12/12/96	DBL	
Mercury, total, low level	0.26	mg/kg dry sample	EPA 7471A	12/12/96	DBL	
Solids, total	29.24	% by weight	SM Ed18 2540 B	12/9/96	PML	
Prep, ECD	Completed		EPA 3550	12/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"DSE Cake, PCI 33996"*

Sampled By : *GT of KWRP*
Sample Date : *12/4/96*
Sample Time :

Date Received : *12/5/96*
Sample Type : *solid*
KAR Sample No. : *963379-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	12/12/96	DBL	
Mercury, total, low level	0.37	mg/kg dry sample	EPA 7471A	12/12/96	DBL	
Solids, total	57.65	% by weight	SM Ed18 2540 B	12/9/96	PML	
Prep, ECD	Completed		EPA 3550	12/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/18/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963379*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *12/19/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).*

Sample ID : *"Incinerator Ash, IASH 33996"*

Sampled By : *GT of KWRP*

Sample Date : *12/4/96*

Sample Time :

Date Received : *12/5/96*

Sample Type : *solid*

KAR Sample No. : *963379-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7471	12/12/96	DBL	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	12/12/96	DBL	
Prep, ECD	Completed		EPA 3550	12/18/96	SAS	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	12/18/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	12/18/96	MSZ	

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KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

KAR Project No. :	***963379***
Date Reported :	***12/19/96***
Date Activated :	***12/05/96***
Date Due :	***12/19/96***
Date Validated :	***12/19/96***

Attn : ***Ms. Theresa Wright***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3053, 3054, 3056, 3057).***

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. 963379. 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

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KAR Laboratories, Inc. 40 Years of Service

CHAIN OF CUSTODY RECORD

3057

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature)

PRIORITY ☐ NORMAL ☐
OTHER –

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS:
1	[illegible]		BCC 33591	1 [illegible]	[illegible]	: AM PM		✓	
2	[illegible]		PCI 33591	1 [illegible]	/ /	: AM PM		✓	
3	[illegible]		[illegible] 33591	1 [illegible]	/ /	: AM PM		✓	
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

	GENERAL/CONVENTIONAL	RESULT		TRACE METALS	RESULT		ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
	pH			CADMIUM			VOC'S		
	BOD/CBOD			TOTAL CHROMIUM					
	CBOD			COPPER					
	COD			LEAD			PCB's, TOTAL		
	TSS			NICKEL			NAPTHALENE		
	VSS			ZINC			FLUORIDE		
	NH_3-N			SILVER			CHLORINE, FREE		
	TOTAL P		X	MERCURY			CHLORINE, TOTAL		
	ORTHO P			BERYLLIUM			HARDNESS, TOTAL		
	GREASE/OIL			BARIUM			ALKALINITY		
	CHLORIDE			ARSENIC			CONDUCTIVITY		
	CN - TOTAL			IRON			TURBIDITY		
	CN - AMENABLE			SODIUM			TDS		
	TPH			CALCIUM			D O.		
	TKN						NITRATE		
							NITRITE		

DATE/TIME		DATE/TIME	
RECEIVED BY (Signature)		RECEIVED BY. (Signature)	
DATE/TIME		DATE/TIME	
3 RELINQUISHED BY· (Signature)		4 RELINQUISHED BY. (Signature)	
DATE/TIME	9 30	DATE/TIME	
RECEIVED BY. (Signature)	[illegible]	RECEIVED BY· (Signature)	
DATE/TIME	/ /	DATE/TIME	
1 RELINQUISHED BY· (Signature)	[illegible]	2 RELINQUISHED BY (Signature)	

Form 954 9 1-96

CHAIN OF CUSTODY RECORD

3056

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) Karen Taylor

PRIORITY ☐ NORMAL ☐
OTHER –

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: / SPECIAL DETECTION LIMITS:
1			TEF 33996	1 - 1 liter	10/9/96	: AM PM		X	
2			IMPI 33996	1 - 1 liter	/ /	: AM PM			
3			IPI 33996	1 - 1 liter	/ /	: AM PM			
4			BCC 33996	1 - Bag	/ /	: AM PM			
5			PCI 33996	1 - Bag	/ /	: AM PM			
6			TISH 33996	1 - Bag	/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY: (Signature)	DATE/TIME 10/9/96	2 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME	4 RELINQUISHED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RECEIVED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

3054

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) [illegible]

PRIORITY ☐ NORMAL ☐
OTHER –

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: / SPECIAL DETECTION LIMITS:
1	[illegible]		[illegible]	1 8oz	12/3/96	: AM PM		/	
2	[illegible]		[illegible]	1 8oz	12/3/96	: AM PM		/	
3	[illegible]		[illegible]	1 8oz	12/3/96	: AM PM		/	
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
	pH		CADMIUM		VOC'S	
	BOD/CBOD		TOTAL CHROMIUM			
	CBOD		COPPER			
	COD		LEAD		PCB's, TOTAL	
	TSS		NICKEL		NAPTHALENE	
	VSS		ZINC		FLUORIDE	
	NH_3-N		SILVER		CHLORINE, FREE	
	TOTAL P	X	MERCURY		CHLORINE, TOTAL	
	ORTHO P		BERYLLIUM		HARDNESS, TOTAL	
	GREASE/OIL		BARIUM		ALKALINITY	
	CHLORIDE		ARSENIC		CONDUCTIVITY	
	CN - TOTAL		IRON		TURBIDITY	
	CN - AMENABLE		SODIUM		TDS	
	TPH		CALCIUM		D O	
	TKN				NITRATE	
					NITRITE	

DATE/TIME		DATE/TIME	
RECEIVED BY (Signature)		RECEIVED BY. (Signature)	
DATE/TIME		DATE/TIME	
3 RELINQUISHED BY. (Signature)		4 RELINQUISHED BY. (Signature)	
DATE/TIME	[illegible]	DATE/TIME	
RECEIVED BY. (Signature)	[illegible]	RECEIVED BY (Signature)	
DATE/TIME	12/3/96 [illegible]	DATE/TIME	
1 RELINQUISHED BY. (Signature)	[illegible]	2 RELINQUISHED BY. (Signature)	

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

2053

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature) Gwen Taylor

PRIORITY ☐ NORMAL ☐
OTHER –

SEND RESULTS TO: T.W

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	Tedeschi [illegible]		TEF 33896	1 - liter	12/3/91	: AM PM			
2	[illegible]		IIPI 33896	1 liter	12/3/91	: AM PM			
3	[illegible]		IPI 33896	1 - liter	12/3/91	: AM PM			
4	[illegible]		BCC 33896	1 Roz	12/3/91	: AM PM			
5	[illegible]		FCI 33896	1 Roz	12/3/91	: AM PM			
6	[illegible]		IFH 33896	1 Roz	12/3/91	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
	pH		CADMIUM		VOC S	
	BOD/CBOD		TOTAL CHROMIUM			
	CBOD		COPPER			
	COD		LEAD	X	PCB's, TOTAL	
	TSS		NICKEL		NAPTHALENE	
	VSS		ZINC		FLUORIDE	
	NH_3-N		SILVER		CHLORINE, FREE	
	TOTAL P		MERCURY		CHLORINE, TOTAL	
	ORTHO P		BERYLLIUM		HARDNESS, TOTAL	
	GREASE/OIL		BARIUM		ALKALINITY	
	CHLORIDE		ARSENIC		CONDUCTIVITY	
	CN TOTAL		IRON		TURBIDITY	
	CN - AMENABLE		SODIUM		TDS	
	TPH		CALCIUM		D O	
	TKN				NITRATE	
					NITRITE	

DATE/TIME		DATE/TIME	
RECEIVED BY (Signature)		RECEIVED BY (Signature)	
DATE/TIME		DATE/TIME	
RELINQUISHED BY (Signature)		RELINQUISHED BY (Signature)	
DATE/TIME		DATE/TIME	
RECEIVED BY (Signature)		RECEIVED BY (Signature)	
DATE/TIME		DATE/TIME	
1 RELINQUISHED BY (Signature)		2 RELINQUISHED BY (Signature)	
3 RELINQUISHED BY (Signature)		4 RELINQUISHED BY (Signature)	

Form 954 9-1-96

CHAIN OF CUSTODY RECORD

3047

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature) Gwen Taylor

PRIORITY ☐ NORMAL ☒
OTHER –

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS.
1	Incinerator Ash		IASH 31396	1 - 4oz	11/8/96	: AM PM			
2	Belt Press Cake		BCC 31396	1 - 4oz	11/8/96	: AM PM			
3	DSE Cake		PC1 31396	1 - 4oz	11/8/96	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE, FREE		
TOTAL P		X MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature) G. Taylor	DATE/TIME 11/8/96 11:30	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature) S. [illegible]	DATE/TIME 11/8/96 11:30	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1-96

CHAIN OF CUSTODY RECORD

3023

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Lowen Taylor

PRIORITY ☐ OTHER – NORMAL ☒

SEND RESULTS TO.

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS:
1	Incinerator Ash		1ASH 31196	1 - 8oz	11/6/96	: AM PM			
2	Belt Press Cake		BCC 31196	1 - 8oz	/ /	: AM PM			
3	DSE Cake		PCL 31196	1 - 8oz	/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB s, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		X MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 11/6/96 11:30a	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9-1 96

CHAIN OF CUSTODY RECORD

3046

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☐ OTHER – NORMAL ☒

SEND RESULTS TO

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	Tertiary EFF		TEF 31396	1 – 1 liter	11/8/96	: AM PM			
2	Industrial Influ.		IPI 31396	1 – 1 liter	/ /	: AM PM			
3	Primary Inf		MPI 31396	1 – 1 liter	/ /	: AM PM			
4	Incinerator Ash		IASH 31396	1 – 8 oz	/ /	: AM PM			
5	Belt Press Cake		BCC 31396	1 – "	/ /	: AM PM			
6	DSF Cake		FCI 31396	1 – "	/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB s TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 11/8/96 11:30	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME 11/8/96 11:30	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

CHAIN OF CUSTODY RECORD

3022

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature) Gwen Taylor

PRIORITY ☐ NORMAL ☒
OTHER –

SEND RESULTS TO

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	TEF		TEF 31196	1 - Liter	11/6/96	: AM PM			
2	Ind Influent		IPI 31196	1 - Liter	/ /	: AM PM			
3	Primary Inf.		MPI 31196	1 - Liter	/ /	: AM PM			
4	Incinerator Ash		IASH 31196	1 - 8oz	/ /	: AM PM			
5	Belt Press Cake		BCC 31196	1 - 8oz	/ /	: AM PM			
6	DSC Cake		PCI 31196	1 - 8oz	/	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB s TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE FREE		
TOTAL P		MERCURY		CHLORINE TOTAL		
ORTHO P		BERYLLIUM		HARDNESS TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

DATE/TIME		DATE/TIME	
RECEIVED BY (Signature)		RECEIVED BY (Signature)	
DATE/TIME		DATE/TIME	
3 RELINQUISHED BY (Signature)		4 RELINQUISHED BY (Signature)	
DATE/TIME	11/6/96 11:30	DATE/TIME	
RECEIVED BY (Signature)	S. Todd	RECEIVED BY (Signature)	
DATE/TIME	11/6/96 11:30 Hr	DATE/TIME	
1 RELINQUISHED BY (Signature)	Gwen Taylor	2 RELINQUISHED BY (Signature)	

Form 954 9 1 96

KAR *Laboratories, Inc.*

4425 Manchester Road

Kalamazoo, MI 49001

Phone 616 381-9666

Fax 616 381-9698

INVOICE

Kalamazoo Water Reclamation Plant
1415 N. Harrison
Kalamazoo, MI 49007

Attn: Ms. Theresa Wright

Project No.: 963095
Date Activated: 11/11/96
Date Reported: 11/22/96
PO#: 090279

Project Desc.: Analysis of 12 samples(KWRP C-of-C #3022, 3023, 3146, & 3047).

Quan	Item	Each	Total
6	Mercury & PCBs	89.25	535.50
6	PCBs	63.00	378.00
4	Solids, total	15.00	60.00

Quoted Price 973.50

TOTAL DUE $ 973.50

Please indicate Project No. 963095 on check stub or voucher

I.D. #38-2476290
A FINANCE CHARGE OF 1 1/2% PER MONTH (18% PER YEAR)
WILL BE ADDED TO BALANCES AFTER 30 DAYS

COPY

KAR Laboratories, Inc. 40 Years of Service

LABORATORY REPORT

KAR Project No. : *963095*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *11/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).*

Sample ID : *"Primary Influent, MPI 31196"*

Sampled By : *GT of KWRP*
Sample Date : *11/6/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *aqueous*
KAR Sample No. : *963095-03*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	11/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/15/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963095*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *11/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).*

Sample ID : *"Tertiary Effluent, TEF 31396"*

Sampled By : *GT of KWRP*
Sample Date : *11/8/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *aqueous*
KAR Sample No. : *963095-07*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	11/14/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963095*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *11/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).*

Sample ID : *"Industrial Influent, IPI 31396"*

Sampled By : *GT of KWRP*
Sample Date : *11/8/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *aqueous*
KAR Sample No. : *963095-08*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	11/14/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"Primary Influent, MPI 31396"***

Sampled By : *GT of KWRP*
Sample Date : *11/8/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *aqueous*
KAR Sample No. : *963095-09*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	11/14/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"DSE Cake, PCI 31196"***

Sampled By : *GT of KWRP*
Sample Date : *11/6/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *solid*
KAR Sample No. : *963095-05*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	11/18/96	MTM	
Mercury, total, low level	0.32	mg/kg dry sample	EPA 7471A	11/19/96	DBL	
Solids, total	55.10	% by weight	SM Ed18 2540 B	11/13/96	KAC	
Prep, ECD	Completed		EPA 3550	11/19/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"Belt Press Cake, BPC 31196"***

Sampled By : *GT of KWRP*

Sample Date : *11/6/96*

Sample Time :

BCC TW

Date Received : *11/8/96*

Sample Type : *solid*

KAR Sample No. : *963095-04*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	11/18/96	MTM	
Mercury, total, low level	<0.10	mg/kg dry sample	EPA 7471A	11/19/96	DBL	
Solids, total	27.11	% by weight	SM Ed18 2540 B	11/13/96	KAC	
Prep, ECD	Completed		EPA 3550	11/19/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"DSE Cake, PCI 31396"***

Sampled By : *GT of KWRP*
Sample Date : *11/8/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *solid*
KAR Sample No. : *963095-11*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	11/18/96	MTM	
Mercury, total, low level	0.06	mg/kg dry sample	EPA 7471A	11/19/96	DBL	
Solids, total	58.78	% by weight	SM Ed18 2540 B	11/14/96	KAC	
Prep, ECD	Completed		EPA 3550	11/19/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

Confirmed 0.06 as a positive result
Detection limit of test is .02,
based on % solids.
per Mike Jaeger.
11/26/96.

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"Belt Press Cake, BPC 31396"*** C TW

Sampled By : ***GT of KWRP***

Sample Date : ***11/8/96***

Sample Time :

Date Received : ***11/8/96***

Sample Type : ***solid***

KAR Sample No. : ***963095-10***

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	11/18/96	MTM	
Mercury, total, low level	<0.07	mg/kg dry sample	EPA 7471A	11/19/96	DBL	
Solids, total	27.93	% by weight	SM Ed18 2540 B	11/14/96	KAC	
Prep, ECD	Completed		EPA 3550	11/19/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"Incinerator Ash, IASH 31196"***

Sampled By : *GT of KWRP*
Sample Date : *11/6/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *solid*
KAR Sample No. : *963095-06*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	11/18/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	11/19/96	DBL	
Prep, ECD	Completed		EPA 3550	11/19/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : ***963095***

Client: ***Kalamazoo Water Reclamation Plant***

Date Reported : ***11/22/96***

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"Incinerator Ash, IASH 31396"***

Sampled By : *GT of KWRP*
Sample Date : *11/8/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *solid*
KAR Sample No. : *963095-12*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, Hg	Completed		EPA 7470	11/18/96	MTM	
Mercury, total, low level	<0.05	mg/kg dry sample	EPA 7471A	11/19/96	DBL	
Prep, ECD	Completed		EPA 3550	11/19/96	JLP	
PCB Aroclor 1016	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1221	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1232	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1242	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1248	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1254	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclor 1260	<330	ug/kg dry sample	EPA 8081	11/20/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/20/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963095*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *11/22/96*

Project Description : *Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).*

Sample ID : *"Tertiary Effluent, TEF 31196"*

Sampled By : *GT of KWRP*

Sample Date : *11/6/96*

Sample Time :

Date Received : *11/8/96*

Sample Type : *aqueous*

KAR Sample No. : *963095-01*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	11/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/15/96	MSZ	

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LABORATORY REPORT

KAR Project No. : *963095*

Client: *Kalamazoo Water Reclamation Plant*

Date Reported : *11/22/96*

Project Description : ***Analysis of 12 samples (KWRP C-of-C #3022, 3023, 3146, 3047).***

Sample ID : ***"Industrial Influent, IPI 31196"***

Sampled By : *GT of KWRP*
Sample Date : *11/6/96*
Sample Time :

Date Received : *11/8/96*
Sample Type : *aqueous*
KAR Sample No. : *963095-02*

Test	Result	Units of Measure	Method	Analyzed	Analyst	Comments
Prep, ECD	Completed		EPA 3510	11/12/96	SAS	
PCB Aroclor 1016	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1221	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1232	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1242	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1248	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1254	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclor 1260	<0.1	ug/L	EPA 8081	11/15/96	MSZ	
PCB Aroclors, total	NA		EPA 8081	11/15/96	MSZ	

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CHAIN OF CUSTODY RECORD

3022

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature) Gwen Taylor

PRIORITY ☐ OTHER –

NORMAL ☒

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	TEF		TEF 31196	1 - Liter	11/6/96	: AM PM			
2	Secd. Influent		IPI 31196	1 - Liter	/ /	: AM PM			
3	Primary Inf.		MPI 31196	1 - Liter	/ /	: AM PM			
4	Incinerator Ash		IASH 31196	1 - 8oz	/ /	: AM PM			
5	Belt Press Cake		BCC 31196	1 - 8oz	/ /	: AM PM			
6	DSC Cake		PCI 31196	1 - 8oz	/ ↓	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		X PCB's TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 11/6/96 11:20	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature) S. [illegible]	DATE/TIME 11/6/96 11:20	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

CHAIN OF CUSTODY RECORD

3023

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Lowen Taylor

PRIORITY ☐ NORMAL ☒
OTHER –

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS:
1	Incinerator Ash		1ASH 311996	1 - 8oz	11/6/96	: AM PM			
2	Belt Press Cake		BCC 311996	1 - 8oz	/ /	: AM PM			
3	DSE Cake		PCI 311996	1 - 8oz	/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1-96

CHAIN OF CUSTODY RECORD

3046

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS (Signature): Gwen Taylor

PRIORITY ☐ NORMAL ☒
OTHER –

SEND RESULTS TO

ITEM NUMBER	SAMPLE I D	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED / SPECIAL DETECTION LIMITS
1	Tertiary EFF		TEF 31396	1 – 1 liter	11/8/96	: AM PM			
2	Industrial Inf.		IPI 31396	1 – 1 liter	/ /	: AM PM			
3	Primary inf		MPI 31396	1 – 1 liter	/ /	: AM PM			
4	Incinerator Ash		IASH 31396	1 – 8 oz	/ /	: AM PM			
5	Belt Press Cake		BCC 31396	1 – n	/ /	: AM PM			
6	DSF Cake		PCI 31396	1 – n	/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB s TOTAL	X	
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3 N		SILVER		CHLORINE FREE		
TOTAL P		MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN TOTAL		IRON		TURBIDITY		
CN AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D O		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY (Signature)	DATE/TIME	2 RELINQUISHED BY (Signature)	DATE/TIME 11/8/96 1:20
RECEIVED BY (Signature)	DATE/TIME 11/8/96 11:30	RECEIVED BY (Signature)	DATE/TIME
3 RELINQUISHED BY (Signature)	DATE/TIME 11/8/96 11:30	4 RELINQUISHED BY (Signature)	DATE/TIME
RECEIVED BY (Signature)	DATE/TIME	RECEIVED BY (Signature)	DATE/TIME

Form 954 9 1 96

CHAIN OF CUSTODY RECORD

3047

CITY OF KALAMAZOO
WATER RECLAMATION LABORATORY
1415 N. Harrison
Kalamazoo, Michigan 49007
616-337-8157

SAMPLERS: (Signature) Gwen Taylor

PRIORITY ☐ NORMAL ☒
OTHER -

SEND RESULTS TO:

ITEM NUMBER	SAMPLE I.D.	BATCH	JULIAN DATE	TYPE & SIZE OF CONTAINER FOR ANALYSIS	DATE	TIME	COMP	GRAB	PARAMETERS REQUESTED: / SPECIAL DETECTION LIMITS:
1	Incinerator Ash		IASH 31396	1 - 4 oz	11/8/96	: AM PM			
2	Belt Press Cake		BCC 31396	1 - 4 oz	11/8/96	: AM PM			
3	DSS Cake		PC1 31396	1 - 4 oz	11/8/96	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			
					/ /	: AM PM			

GENERAL/CONVENTIONAL	RESULT	TRACE METALS	RESULT	ORGANIC/OTHER	RESULT	BACTERIOLOGICAL
pH		CADMIUM		VOC'S		
BOD/CBOD		TOTAL CHROMIUM				
CBOD		COPPER				
COD		LEAD		PCB's, TOTAL		
TSS		NICKEL		NAPTHALENE		
VSS		ZINC		FLUORIDE		
NH_3-N		SILVER		CHLORINE, FREE		
TOTAL P		X MERCURY		CHLORINE, TOTAL		
ORTHO P		BERYLLIUM		HARDNESS, TOTAL		
GREASE/OIL		BARIUM		ALKALINITY		
CHLORIDE		ARSENIC		CONDUCTIVITY		
CN - TOTAL		IRON		TURBIDITY		
CN - AMENABLE		SODIUM		TDS		
TPH		CALCIUM		D.O.		
TKN				NITRATE		
				NITRITE		

1 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
2 RELINQUISHED BY: (Signature)	DATE/TIME 11/8/96 1:20p	RECEIVED BY: (Signature)	DATE/TIME
3 RELINQUISHED BY: (Signature)	DATE/TIME 11/8/96 11:30	RECEIVED BY: (Signature)	DATE/TIME
4 RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Form 954 9-1-96

ATTACHMENT 6

Kalamazoo Water Reclamation Plant Solids Handling February 1955 to May 1967

Primary Treatment Only February 1955 - May 1967. Anaerobic Digesters and Vacuum Filters and Onsite Drying Beds and Lagoons

Vacuator for scum removal also removed some sludge that was sent to digesters

	Primary Sludge Raw Sludge into Anaerobic Digesters dry tons	Primary Sludge Digested Sludge out of Anaerobic Digesters dry tons	Primary Sludge Vacuum Filter Output dry tons	Primary Sludge drying beds or lagoons onsite dry tons		Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Jan-54							
Feb-54							
Mar-54							
Apr-54							
May-54							
Jun-54							
Jul-54							
Aug-54							
Sep-54							
Oct-54							
Nov-54							
Dec-54							
Jan-55							
Feb-55							
Mar-55							
Apr-55							
May-55							
Jun-55							
Jul-55							
Aug-55	159	5	0	5		0	?
Sep 55	238	5	0	5		0	?
Oct-55	242	77	0	77		0	?
Nov-55	225	10	10	0	44400 gal digested sludge to vacuum filters, 134300 gal digested sludge pumped onto ground north of settling tanks	0	?
Dec-55	214	1	0	1		0	?
Jan-56	203	30	30	0		0	?
Feb-56	161	39	39	0		0	?
Mar-56	153	20	20	0		0	?
Apr-56	179	29	29	0		0	?
May-56	174	40	40	0		0	?
Jun-56	199	46	46	0		0	?
Jul-56	137	56	56	0		0	?
Aug-56	191	71	71	0		0	?
Sep-56	199	87	87	0		0	?
Oct-56	211	71	71	0		0	?
Nov-56	157	3	0	3	sent sludge to land	0	?
Dec-56	169	77	0	77	sent sludge to field	0	?
Jan-57	166	69	5	64		0	?
Feb-57	167	74	68	6		0	?
Mar-57	183	54	9	45		0	?
Apr-57	179	165	0	165	vacuum filters down - bad bearings	0	?
May-57	189	105	35	70		0	?

Kalamazoo Water Reclamation Plant Solids Handling February 1955 to May 1967

Primary Treatment Only February 1955 - May 1967. Anaerobic Digesters and Vacuum Filters and Onsite Drying Beds and Lagoons

Vacuator for scum removal also removed some sludge that was sent to digesters

	Primary Sludge Raw Sludge into Anaerobic Digesters dry tons	Primary Sludge Digested Sludge out of Anaerobic Digesters dry tons	Primary Sludge Vacuum Filter Output dry tons	Primary Sludge drying beds or lagoons onsite dry tons		Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Jun-57	201	99	38	61		0	?
Jul-57	216	92	31	61		0	?
Aug-57	179	106	123	0		0	?
Sep-57	175	83	39	44		0	?
Oct-57	188	57	14	35		0	?
Nov-57	151	72	0	72	vacuum filter down, used drying beds	0	?
Dec-57	164	164	0	164	vacuum filter down, used drying beds or leaf piles for shredding (sludge lagoons north of Digesters)	0	?
Jan-58	192	137	0	137	no destination mentioned, so assume drying beds	0	?
Feb-58	169	98	82	16	32430 lbs digested sludge to drying beds	0	?
Mar-58	206	86	15	71	114,465 lbs digested sludge to drying beds,	0	?
Apr-58	190	70	0	68	3782 lbs primary digested sludge given to Upjohn, 63518 lbs digested sludge to drying beds, 82482 lbs digested sludge to ground W of digestion sl	2	Upjohn
May-58	209	62	0	62	124010 lbs digested sludge to drying beds,	0	?
Jun-58	177	84	0	84	168700 lbs digested sludge to drying beds,	0	?
Jul-58	199	47	0	47	94297 lbs digested sludge to drying beds,	0	?
Aug-58	232	67	0	67	133937 lbs digested sludge to drying beds,	0	?
Sep-58	233	34	0	34	67969 lbs digested sludge to drying beds, 20000 gallons of primary sludge given to Upjohn	10	Upjohn
Oct-58	275	102	0	102	no destination mentioned, so assume drying beds	0	?
Nov-58	206	158	0	158	315264 lbs digested sludge to lagoons north of digester	0	?
Dec-58	233	174	0	174	272886 lbs digested sludge to lagoons north of digester, 74654 lbs to drying beds	0	?
Jan-59	170	97	0	46	34003 lbs digested sludge to pond north of digester, 58278 lbs to riverbank for fill	0	?
Feb-59	153	80	0	26	no destination mentioned, so assume drying beds	0	?
Mar-59	189	0	0	0	just transferring sludges within digesters	0	?
Apr-59	308	165	0	45	90087 lbs digested sludge to pond at river	0	?
May-59	364	185	0	49	48494 lbs digested sludge to pond back of carport, 49402 lbs digested sludge to south pond near river	0	?
Jun-59	344	258	0	26	51258 lbs digested sludge to pond back of carport	0	?
Jul-59	256	91	0	169	69412 lbs digested sludge to pond back of carport, 231112 lbs digested sludge to drying beds	0	?
Aug-59	213	255	0	64	38786 lbs digested sludge to pond back of carport, 89937 lbs digested sludge to NW or SE ponds, vacuum filtered 109532 lbs raw sludge	0	?
Sep-59	237	185	55	98	196990 lbs digested sludge to drying beds	0	?
Oct-59	241	187	17	0	vacuum filtered 33763 lbs raw sludge	0	?
Nov-59	194	132	0	16	32219 lbs digested sludge to lagoon west of digester	0	?
Dec-59	204	90	0	0		0	?
Jan-60	219	102	0	36	72913 lbs digested sludge to lagoon by river	0	?
Feb-60	156	69	0	14	28325 lbs digested sludge to SW lagoons	0	?
Mar-60	168	101	0	72	144331 lbs digested sludge to SW lagoons	0	?
Apr-60	195	110	0	72	144985 lbs to digested sludge south lagoon	0	?
May-60	208	129	0	37	assume drying beds	0	?
Jun-60	214	132	0	42	assume drying beds	0	?
Jul-60	191	111	0	89	177338 lbs digested sludge to S lagoon	0	?
Aug-60	200	102	0	94	67428 lbs digested sludge to SW lagoon, 121499 lbs digested sludge to drying beds	0	?
Sep-60	198	97	0	29	assume drying beds	0	?
Oct-60	140	68	18	78	23637 lbs digested sludge to drying beds, 132524 lbs digested sludge to north lagoons	0	?

Kalamazoo Water Reclamation Plant Solids Handling February 1955 to May 1967

Primary Treatment Only February 1955 - May 1967. Anaerobic Digesters and Vacuum Filters and Onsite Drying Beds and Lagoons

Vacuator for scum removal also removed some sludge that was sent to digesters

	Primary Sludge Raw Sludge into Anaerobic Digesters dry tons	Primary Sludge Digested Sludge out of Anaerobic Digesters dry tons	Primary Sludge Vacuum Filter Output dry tons	Primary Sludge drying beds or lagoons onsite dry tons		Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Nov-60	89	38	20	0	still having problems from Nov 19, 1960 hexavalent chrome release	0	?
Dec-60	64	0	29	52	pumping down #1 primary digester to eliminate hexavalent chrome received in Nov 60, 104614 lnbs digested sludge sent to lagoon	0	?
Jan-61	125	38	55	71	141338 lbs digested sludge sent to S lagoon, 110876 lbs raw sludge vacuum filtered	0	?
Feb-61	109	42	39	101	202148 lbs digested sludge sent to S lagoon, 78651 lbs raw sludge vacuum filtered	0	?
Mar-61	144	51	32	92	184493 lbs digested sludge sent to S lagoon, 63620 lbs raw sludge vacuum filtered	0	?
Apr-61	162	57	22	0	43060 lbs raw sludge vacuum filtered	0	?
May-61	175	69	0	94	56993 lbs digested sludge sent to drying beds, 130184 lbs digested sludge sent to S lagoon	0	?
Jun-61	188	65	0	15	30639 lbs digested sludge sent to drying beds	0	?
Jul-61	186	70	0	0	just moved digested sludge from one digester to another	0	?
Aug-61	200	81	0	90	109486 lbs digested sludge sent to drying beds, 70955 lbs digested sludge sent to S lagoon	0	?
Sep-61	229	96	0	70	64190 lbs digested sludge sent to S lagoon, 75840 lbs digested sludge sent to drying beds	0	?
Oct-61	208	81	0	83	108972 lbs digested sludge sent to S lagoons, 56568 lbs digested sludge sent to drying beds	0	?
Nov-61	185	76	0	80	159586 lbs digested sludge sent to S or W lagoon	0	?
Dec-61	181	63	0	69	138285 lbs digested sludge sent to S lagoon	0	?
Jan-62	191	65	0	41	82025 lbs digested sludge sent to E lagoon	0	?
Feb-62	182	63	0	53	106942 lbs digested sludge sent to E lagoon	0	?
Mar-62	220	85	0	43	86506 lbs digested sludge sent to W lagoon	0	?
Apr-62	186	74	0	95	189155 lbs digested sludge sent to W lagoon	0	?
May-62	190	74	3	74	53670 lbs digested sludge sent to drying beds, 63822 lbs digested sludge sent to E or W lagoon, 5916 lbs raw sludge processed on vacuum filter	0	?
Jun-62	177	72	0	47	61168 lbs digested sludge sent to drying beds, 32409 lbs digested sludge sent to W lagoon	0	?
Jul-62	181	88	0	65	63396 lbs digested sludge sent to drying beds, 66926 lbs digested sludge sent to W lagoon	0	?
Aug-62	177	104	0	68	135999 lbs digested sludge sent to drying beds	0	?
Sep-62	192	99	0	52	35092 lbs digested sludge sent to drying beds, 68959 lbs digested sludge sent to W lagoon	0	?
Oct-62	187	114	0	87	67167 lbs digested sludge sent to drying beds, 106987 lbs digested sludge sent to W lagoon	0	?
Nov-62	161	97	0	72	74441 lbs digested sludge sent to drying beds, 69060 lbs digested sludge sent to E lagoon	0	?
Dec-62	150	83	0	56	111484 lbs digested sludge sent to S or W lagoon	0	?
Jan-63	162	89	0	32	63091 lbs digested sludge sent to W lagoon	0	?
Feb-63	147	80	0	40	80182 lbs digested sludge sent to W lagoon	0	?
Mar-63	179	100	0	26	52711 lbs digested sludge sent to W lagoon	0	?
Apr-63	173	104	0	32	64215 lbs digested sludge sent to W lagoon	0	?
May-63	196	120	0	27	53878 lbs digested sludge sent to W lagoon	0	?
Jun-63	180	107	0	51	59425 lbs digested sludge sent to drying beds, 41787 lbs digested sludge sent to W lagoon	0	?
Jul-63	195	127	0	75	149987 lbs digested sludge sent to drying beds	0	?
Aug-63	202	134	0	68	96365 lbs digested sludge sent to drying beds, 39130 lbs digested sludge sent to W lagoon	0	?
Sep-63	220	143	0	77	154716 lbs digested sludge sent to drying beds	0	?
Oct-63	220	156	0	62	123875 lbs digested sludge sent to drying beds	0	?
Nov-63	194	135	0	64	32330 lbs digested sludge sent to drying beds, 96220 lbs digested sludge sent to E lagoon	0	?
Dec-63	185	121	0	82	163308 lbs digested sludge sent to N lagoon	0	?
Jan-64	191	113	0	66	132528 lbs digested sludge sent to N lagoon	0	?
Feb-64	199	112	0	44	88664 lbs digested sludge sent to N lagoon	0	?
Mar-64	246	144	0	67	133200 lbs digested sludge sent to N lagoon	0	?

Kalamazoo Water Reclamation Plant Solids Handling February 1955 to May 1967

Primary Treatment Only February 1955 - May 1967. Anaerobic Digesters and Vacuum Filters and Onsite Drying Beds and Lagoons

Vacuator for scum removal also removed some sludge that was sent to digesters

	Primary Sludge Raw Sludge into Anaerobic Digesters dry tons	Primary Sludge Digested Sludge out of Anaerobic Digesters dry tons	Primary Sludge Vacuum Filter Output dry tons	Primary Sludge drying beds or lagoons onsite dry tons		Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Apr-64	254	153	0	62	124121 lbs digested sludge sent to N lagoon	0	?
May-64	228	146	0	42	83794 lbs digested sludge sent to N lagoon	0	?
Jun-64	213	134	0	66	53756 lbs digested sludge sent to drying beds, 77892 lbs digested sludge sent to N lagoon	0	?
Jul-64	200	137	0	51	76366 lbs digested sludge sent to drying beds, 24693 lbs digested sludge sent to N lagoon	0	?
Aug-64	202	158	0	74	147263 lbs digested sludge sent to drying beds	0	?
Sep-64	216	136	0	60	90097 lbs digested sludge sent to drying beds, 30762 lbs digested sludge sent to N lagoon	0	?
Oct-64	200	127	0	58	116831 lbs digested sludge sent to N lagoon	0	?
Nov-64	196	124	0	59	20600 lbs digested sludge sent to drying beds, 97125 lbs digested sludge sent to N lagoon	0	?
Dec-64	186	128	0	41	19542 lbs digested sludge sent to drying beds, 63100 lbs digested sludge sent to N lagoon	0	?
Jan-65	195	127	0	43	85089 lbs digested sludge sent to N lagoon	0	?
Feb-65	180	107	0	42	83557 lbs digested sludge sent to N or E lagoon	0	?
Mar-65	227	138	0	55	109164 lbs digested sludge sent to E lagoon	0	?
Apr-65	223	125	0	48	96389 lbs digested sludge sent to W or E lagoon	0	?
May-65	213	118	0	56	112628 lbs digested sludge sent to W lagoon	0	?
Jun-65	205	112	0	82	164699 lbs digested sludge sent to W lagoon	0	?
Jul-65	204	115	0	34	3256 lbs digested sludge sent to tank truck, 67102 lbs digested sludge sent to W lagoon	0	?
Aug-65	227	129	0	0	47795 lbs digested sludge sent to tank truck	24	tanker truck
Sep-65	284	131	0	70	53680 lbs digested sludge sent to drying beds, 86686 lbs digested sludge sent to SE lagoon	0	?
Oct-65	346	142	0	112	223032 lbs digested sludge to drying beds,	0	?
Nov-65	221	77	11	87	173610 lbs digested sludge to drying beds, 22403 dry lbs of vacuum filtered cake from filtering raw sludge	0	?
Dec-65	208	75	6	33	66000 lbs digested sludge to drying beds, 11735 dry lbs vacuum filtere cake from filtering raw sludge	0	?
Jan-66	246	89	0	49	97110 lbs digested sludge to NW drying beds,	0	?
Feb-66	250	71	0	166	332681 lbs digested sludge sent to sludge lagoons, Unknown chemical ended gas production in digesters,	0	?
Mar-66	197	62	180	73	Vacuum filtered 360055 lbs of raw sludge, 146152 lbs digested sludge sent to ?	0	?
Apr-66	277	142	27	48	Vacuum filtered 54965 lbs of raw sludge, 96424 lbs digested sludge sent to lagoon	0	?
May-66	336	190	10	88	Vacuum filtered 20834 lbs of raw sludge, 176302 lbs digested sludge sent to W lagoon	0	?
Jun-66	621	525	0	72	46300 lbs digested sludge sent to drying beds, 96986 lbs digested sludge sent to W lagoon	0	?
Jul-66	465	423	0	102	203608 lbs digested sludge to drying beds,	0	?
Aug-66	438	298	0	56	112833 lbs digested sludge to drying beds,	0	?
Sep-66	522	368	0	91	182025 lbs digested sludge to drying beds,	0	?
Oct-66	525	373	0	107	214763 lbs digested sludge to drying beds,	0	?
Nov-66	432	238	0	82	163847 lbs digested sludge to drying beds,	0	?
Dec-66	364	170	0	125	249464 lbs digested sludge to drying beds,	0	?
Jan-67	368	172	0	38	76052 lbs digested sludge to W lagoon	0	?
Feb-67	397	200	0	68	136385 lbs digested sludge to W lagoon	0	?
Mar-67	499	250	0	25	50046 lbs digested sludge to W lagoon	0	?
Apr-67	427	226	0	42	83271 lbs digested sludge to W lagoon	0	?
May-67	432	228	0	77	153694 lbs digested sludge to W lagoon	0	?

Kalamazoo Water Reclamation Plant Solids Handling June 1967 to May 1971

Secondary Treatment Added (added Paper Mill Waste to Secondary) June 1967 - May 1971.

Anaerobic Digesters, Vacuum Filters, Onsite Drying Beds and Lagoons, and Eastside Byproducts Solids Disposal Area

	Primary Sludge Raw Sludge into Anaerobic Digesters dry tons	Primary Sludge Digested Sludge out of Anaerobic Digesters dry tons	Primary Sludge Vacuum Filter Output dry tons	Primary Sludge Byproducts Solids Disposal Area dry tons	Secondary Sludge Byproducts Solids Disposal Area dry tons		Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Oct-67	352	185	0	0	1437		1,437	EBSDA
Nov-67	419	219	0	60	1425	119431 lbs of digested sludge pumped somewhere (EBSDA?)	1,484	EBSDA
Dec-67	355	198	0	11	1704	22039 lbs of digested sludge pumped somewhere (EBSDA?)	1,715	EBSDA
Jan-68	341	197	0	0	994		994	EBSDA
Feb-68	192	109	0	0	1180		1,180	EBSDA
Mar-68	296	153	0	0	1046		1,046	EBSDA
Apr-68	301	142	0	0	756		756	EBSDA
May-68	326	143	0	0	1022		1,022	EBSDA
Jun-68	349	145	0	0	655		655	EBSDA
Jul-68	426	219	0	0	896		896	EBSDA
Aug-68	449	252	0	0	708		708	EBSDA
Sep-68	254	179	0	0	1203		1,203	EBSDA
Oct-68	254	131	0	0	1375		1,375	EBSDA
Nov-68	201	122	0	0	1543		1,543	EBSDA
Dec-68	280	196	0	0	826		826	EBSDA
Jan-69	141	90	0	0	572		572	EBSDA
Feb-69	63	31	0	0	636		636	EBSDA
Mar-69	304	214	0	0	1025		1,025	EBSDA
Apr-69	363	270	12	0	874		874	EBSDA
May-69	153	120	0	0	901		901	EBSDA
Jun-69	70	50	0	0	889		889	EBSDA
Jul-69	68	79	0	0	442		442	EBSDA
Aug-69	118	69	0	0	440		440	EBSDA
Sep-69	78	231	0	0	370		370	EBSDA
Oct-69	0	328	0	0	302		302	EBSDA
Nov-69	0	266	0	0	193		193	EBSDA
Dec-69	0	342	0	0	272		272	EBSDA
Jan-70	0	260	0	0	673		673	EBSDA
Feb-70	0	117	0	0	617		617	EBSDA
Mar-70	0	98	0	0	177		177	EBSDA

Kalamazoo Water Reclamation Plant Solids Handling June 1967 to May 1971

Secondary Treatment Added (added Paper Mill Waste to Secondary) June 1967 - May 1971.

Anaerobic Digesters, Vacuum Filters, Onsite Drying Beds and Lagoons, and Eastside Byproducts Solids Disposal Area

	Primary Sludge Raw Sludge into Anaerobic Digesters dry tons	Primary Sludge Digested Sludge out of Anaerobic Digesters dry tons	Primary Sludge Vacuum Filter Output dry tons	Primary Sludge Byproducts Solids Disposal Area dry tons	Secondary Sludge Byproducts Solids Disposal Area dry tons		Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Apr-70	0	81	0	0	63		63	EBSDA
May-70	0	109	0	0	319		319	EBSDA
Jun-70	0	106	0	0	625		625	EBSDA
Jul-70	0	137	0	0	767		767	EBSDA
Aug-70	0	118	0	0	542		542	EBSDA
Sep-70	0	68	0	0	434		434	EBSDA
Oct-70	0	81	0	0	478		478	EBSDA
Nov-70	0	131	0	0	350		350	EBSDA
Dec-70	0	132	0	0	153		153	EBSDA
Jan-71	0	138	0	0	251		251	EBSDA
Feb-71	0	129	0	0	127		127	EBSDA
Mar-71	0	139	0	0	?	No report on sludge to disposal	?	EBSDA
Apr-71	0	99	0	0	115		115	EBSDA
May-71	0	57	0	0	256		256	EBSDA

Kalamazoo Water Reclamation Plant Solids Handling June 1971 to September 1985

Low Pressure Oxidation Added June 1971. Incinerator Added April 1972. Co-thickening Primary & Secondary Sludges Through September 1985

Three 0.345 Mgal Gravity Thickeners Added. Converted 4 Digesters to Thickeners in mid 1980s. Separate Municipal Primary Opened 1980.

	Co-thick Sludge Low Pressure Oxidation dry tons	Co-thick Sludge Vacuum Filter dry tons	Co-thick Sludge Incinerated dry tons	Co-thick Sludge Incinerator Ash dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals	
Jun-71	?		0	0	?	Could be KL Landfill	
Jul-71	1031	136	0	0	136	Could be KL Landfill	
Aug-71	1138	756	0	0	756	Could be KL Landfill	
Sep-71	888	222	0	0	222	Could be KL Landfill	
Oct-71	516	?	0	0	?	Could be KL Landfill	no vacuum filter flows
Nov-71	1098	?	0	0	?	Could be KL Landfill	no vacuum filter flows
Dec-71	966	334	0	0	334	Could be KL Landfill	
Jan-72	1263	456	0	0	456	Could be KL Landfill	
Feb-72	1509	605	0	0	605	Could be KL Landfill	
Mar-72	1824	578	0	0	578	Could be KL Landfill	
Apr-72	1753	557	557	?	?	Could be KL Landfill	
May-72	1524	782	782	128	128	Could be KL Landfill	**note that one cubic yd of ash weighs about 570 lbs**
Jun-72	1607	985	985	398	398	Could be KL Landfill	primary & secondary sludge co-thickened
Jul-72	1296	1,002	966	341	341	Could be KL Landfill	primary & secondary sludge co-thickened
Aug-72	1381	1,011	1,011	402	402	Could be KL Landfill	primary & secondary sludge co-thickened
Sep-72	1285	1,038	929	298	298	Could be KL Landfill	primary & secondary sludge co-thickened
Oct-72	1651	899	684	275	275	Could be KL Landfill	primary & secondary sludge co-thickened
Nov-72	1433	1,095	629	160	160	Could be KL Landfill	primary & secondary sludge co-thickened
Dec-72	1211	773	773	369	369	Could be KL Landfill	primary & secondary sludge co-thickened
Jan-73	1731	1,140	804	294	294	Could be KL Landfill	primary & secondary sludge co-thickened
Feb-73	1244	989	690	282	282	Could be KL Landfill	primary & secondary sludge co-thickened
Mar-73	1741	1,180	767	348	348	Could be KL Landfill	primary & secondary sludge co-thickened
Apr-73	2018	1,112	955	412	412	Could be KL Landfill	primary & secondary sludge co-thickened
May-73	1903	880	880	463	463	Could be KL Landfill	primary & secondary sludge co-thickened
Jun-73	1849	944	832	467	467	Could be KL Landfill	primary & secondary sludge co-thickened
Jul-73	1736	767	767	432	432	Could be KL Landfill	primary & secondary sludge co-thickened
Aug-73	2225	889	889	496	496	Could be KL Landfill	primary & secondary sludge co-thickened
Sep-73	1716	878	858	399	399	Could be KL Landfill	primary & secondary sludge co-thickened
Oct-73	1930	995	978	563	563	Could be KL Landfill	primary & secondary sludge co-thickened
Nov-73	1558	523	331	322	322	Could be KL Landfill	primary & secondary sludge co-thickened
Dec-73	1403	474	263	177	177	Could be KL Landfill	incinerator down Dec 14 for hearth #2 repair
Jan-74	1632	717	0	0	717	Could be KL Landfill	incinerator down
Feb-74	1665	884	0	0	884	Could be KL Landfill	incinerator down
Mar-74	1867	707	0	0	707	Could be KL Landfill	incinerator down
Apr-74	1758	980	0	0	980	Could be KL Landfill	incinerator down
May-74	1824	1,206	0	0	1206	Could be KL Landfill	incinerator down
Jun-74	1791	1,091	0	0	1091	Could be KL Landfill	incinerator down
Jul-74	1631	913	79	0	913	Could be KL Landfill	incinerator down until July 29
Aug-74	1640	747	747	405	405	Could be KL Landfill	primary & secondary sludge co-thickened
Sep-74	1843	898	898	520	520	Could be KL Landfill	primary & secondary sludge co-thickened

Kalamazoo Water Reclamation Plant Solids Handling June 1971 to September 1985

Low Pressure Oxidation Added June 1971. Incinerator Added April 1972. Co-thickening Primary & Secondary Sludges Through September 1985

Three 0.345 Mgal Gravity Thickeners Added. Converted 4 Digesters to Thickeners in mid 1980s. Separate Municipal Primary Opened 1980.

	Co-thick Sludge Low Pressure Oxidation dry tons	Co-thick Sludge Vacuum Filter dry tons	Co-thick Sludge Incinerated dry tons	Co-thick Sludge Incinerator Ash dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals		
Oct-74	1641	910	910	463	463	Could be KL Landfill	primary & secondary sludge co thickened	
Nov-74	1801	1,227	1,227	532	532	Could be KL Landfill	primary & secondary sludge co-thickened	
Dec-74	1720	1,289	864	383	383	Could be KL Landfill	primary & secondary sludge co-thickened	
Jan-75	1573	1,018	1,018	483	483	Could be KL Landfill	primary & secondary sludge co-thickened	
Feb-75	1251	749	749	396	396	Could be KL Landfill	primary & secondary sludge co-thickened	
Mar-75	1352	948	948	399	399	Could be KL Landfill	primary & secondary sludge co-thickened	
Apr-75	1026	690	577	249	249	Could be KL Landfill	primary & secondary sludge co-thickened	
May-75	982	537	394	197	197	Could be KL Landfill	primary & secondary sludge co-thickened	
Jun-75	1086	658	616	262	262	Could be KL Landfill	primary & secondary sludge co-thickened	
Jul-75	1120	734	734	338	338	Could be KL Landfill	primary & secondary sludge co-thickened	
Aug-75	1038	588	588	244	244	Could be KL Landfill	primary & secondary sludge co-thickened	
Sep-75	1195	191	191	84	84	Could be KL Landfill	primary & secondary sludge co-thickened	
Oct-75	1782	365	365	194	194	Could be KL Landfill	primary & secondary sludge co-thickened	
Nov-75	1592	675	675	211	211	Could be KL Landfill	primary & secondary sludge co-thickened	
Dec-75	1357	393	393	264	264	Could be KL Landfill	primary & secondary sludge co-thickened	
Jan-76	1281	350	350	177	177	Could be KL Landfill	primary & secondary sludge co-thickened	
Feb-76	1243	528	21	9	9	Could be KL Landfill	incinerator down for repairs on February 2	
Mar-76	1491	911	0	0	911	Could be KL Landfill	incinerator down for repairs	
Apr-76	1260	690	379	174	174	Could be KL Landfill	incinerator started again on April 13	
May-76	1301	717	717	336	336	Could be KL Landfill	primary & secondary sludge co-thickened	
Jun-76	1254	731	731	322	322	Could be KL Landfill	primary & secondary sludge co-thickened	
Jul-76	1183	586	586	336	336	Could be KL Landfill	primary & secondary sludge co-thickened	
Aug-76	1082	519	519	248	248	Could be KL Landfill	primary & secondary sludge co-thickened	
Sep-76	957	510	510	296	296	Could be KL Landfill	primary & secondary sludge co-thickened	
Oct-76	1304	653	606	339	339	Could be KL Landfill	primary & secondary sludge co-thickened	
Nov-76	1207	528	528	316	316	Could be KL Landfill	primary & secondary sludge co-thickened	
Dec-76	1436	784	784	445	445	Could be KL Landfill	primary & secondary sludge co-thickened	
Jan-77	1507	833	833	390	390	Could be KL Landfill	primary & secondary sludge co-thickened	
Feb-77	1297	660	295	131	131	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator down Feb 14 for repairs
Mar-77	1444	712	586	274	274	Could be KL Landfill	primary & secondary sludge co thickened	Incinerator back on March 8
Apr-77	1278	619	619	336	336	Could be KL Landfill	primary & secondary sludge co thickened	
May-77	1135	728	728	325	325	Could be KL Landfill	primary & secondary sludge co-thickened	
Jun-77	1432	684	684	348	348	Could be KL Landfill	primary & secondary sludge co-thickened	
Jul-77	1246	802	647	314	314	Could be KL Landfill	primary & secondary sludge co-thickened	
Aug-77	1298	733	733	371	371	Could be KL Landfill	primary & secondary sludge co-thickened	
Sep-77	975	580	580	322	322	Could be KL Landfill	primary & secondary sludge co-thickened	
Oct-77	1018	263	263	265	265	Could be KL Landfill	primary & secondary sludge co-thickened	
Nov-77	1119	686	686	299	299	Could be KL Landfill	primary & secondary sludge co-thickened	
Dec-77	1160	621	621	288	288	Could be KL Landfill	primary & secondary sludge co thickened	
Jan-78	901	477	477	279	279	Could be KL Landfill	primary & secondary sludge co-thickened	

Kalamazoo Water Reclamation Plant Solids Handling June 1971 to September 1985

Low Pressure Oxidation Added June 1971. Incinerator Added April 1972. Co-thickening Primary & Secondary Sludges Through September 1985

Three 0.345 Mgal Gravity Thickeners Added. Converted 4 Digesters to Thickeners in mid 1980s. Separate Municipal Primary Opened 1980.

	Co-thick Sludge Low Pressure Oxidation dry tons	Co-thick Sludge Vacuum Filter dry tons	Co-thick Sludge Incinerated dry tons	Co-thick Sludge Incinerator Ash dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals		
Feb-78	998	493	103	71	71	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator down for repairs on Feb 7
Mar-78	1088	531	0	0	531	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator down for repairs
Apr-78	912	302	0	0	302	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator down for repairs
May-78	1076	478	0	0	478	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator down for repairs
Jun-78	1004	541	416	?	?	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator back in service June 6 Inc Ash for listed
Jul-78	1223	621	621	?	?	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator ash not listed
Aug-78	1001	579	556	?	?	Could be KL Landfill	primary & secondary sludge co-thickened	Incinerator ash not listed
Sep-78	879	514	514	?	?	Could be KL Landfill	primary & secondary sludge co thickened	Incinerator ash not listed
Oct-78	991	454	454	190	190	Could be KL Landfill	primary & secondary sludge co-thickened	
Nov-78	969	588	588	246	246	Could be KL Landfill	primary & secondary sludge co-thickened	
Dec-78	949	573	573	235	235	Could be KL Landfill	primary & secondary sludge co-thickened	
Jan-79	1192	628	628	230	230	Could be KL Landfill	primary & secondary sludge co-thickened	Some Incinerated ash estimated
Feb-79	1410	704	704	180	180	Could be KL Landfill	primary & secondary sludge co-thickened	
Mar-79	1579	874	874	755	755	Could be KL Landfill	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Apr-79	1823	690	690	632	632	Could be KL Landfill	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
May-79	2025	901	901	795	795	KL Landfill closed 5-4-79	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Jun-79	1562	762	762	631	631	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Jul-79	1525	752	752	676	676	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Aug-79	1577	989	989	906	906	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Sep-79	1757	939	939	820	820	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Oct-79	1883	871	826	720	720	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Nov-79	1574	763	573	296	296	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Large cubic yd increase Inc Ash seems odd
Dec-79	2222	1,079	1,079	450	450	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jan-80	1598	1,006	1,006	409	409	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Feb-80	1393	882	882	351	351	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Mar-80	2249	532	532	225	225	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Apr-80	2135	1,231	1,124	481	481	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
May-80	1680	817	817	329	329	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jun-80	1681	985	985	414	414	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jul-80	1653	862	862	326	326	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Aug-80	1503	644	644	236	236	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Sep-80	1607	897	897	345	345	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Oct-80	1758	651	651	230	230	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Nov-80	2000	845	845	299	299	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Dec-80	1832	980	980	342	342	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jan-81	1688	666	666	229	229	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Feb-81	1556	646	646	209	209	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Mar-81	1927	1,040	246	92	92	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	Incinerator down on March 13
Apr-81	1763	810	151	56	56	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	Incinerator back on line April 25
May-81	1629	832	832	288	288	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	

Kalamazoo Water Reclamation Plant Solids Handling June 1971 to September 1985

Low Pressure Oxidation Added June 1971. Incinerator Added April 1972. Co-thickening Primary & Secondary Sludges Through September 1985

Three 0.345 Mgal Gravity Thickeners Added. Converted 4 Digesters to Thickeners in mid 1980s. Separate Municipal Primary Opened 1980.

	Co-thick Sludge Low Pressure Oxidation dry tons	Co-thick Sludge Vacuum Filter dry tons	Co-thick Sludge Incinerated dry tons	Co-thick Sludge Incinerator Ash dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals		
Jun-81	1542	851	851	299	299	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jul-81	1728	929	929	351	351	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Aug-81	1556	633	633	238	238	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Sep-81	1459	583	583	220	220	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Oct-81	1900	695	695	247	247	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Nov-81	1806	775	775	291	291	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	
Dec-81	?	?	?	?	?	Three Rivers or Watervliet Landfill?	No Zimpro Sheets found	
Jan-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Feb-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Mar-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Apr-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
May-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Jun-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Jul-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Aug-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Sep-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Oct-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Nov-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Dec-82						Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Cannot find 1982 Operation reports
Jan-83	1900	950	950	356	356	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	
Feb-83	1328	597	597	219	219	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Mar-83	1636	728	728	310	310	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Apr-83	1647	1,036	1,036	411	411	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
May-83	1960	1,148	1,148	455	455	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jun-83	1782	812	812	309	309	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jul-83	1513	1,068	1,068	378	378	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Aug-83	1580	894	894	357	357	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Sep-83	1286	740	740	310	310	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	
Oct-83	1075	542	542	225	225	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Nov-83	1402	651	651	255	255	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Dec-83	1314	702	702	276	276	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	
Jan-84	1049	645	257	74	74	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently went out of service January 16
Feb-84	975	598	0	0	598	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Mar-84	1090	605	0	0	605	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Apr-84	887	371	0	0	371	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
May-84	803	265	0	0	265	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Jun-84	1049	811	0	0	811	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Jul-84	1109	77	0	0	77	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Puzzled by large drop in wet filter cake lbs (looks like a decimal problem)
Aug-84	1293	255	0	0	255	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Puzzled by large drop in wet filter cake lbs (looks like a decimal problem)
Sep-84	1068	105	0	0	105	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Puzzled by large drop in wet filter cake lbs (looks like a decimal problem)

Kalamazoo Water Reclamation Plant Solids Handling June 1971 to September 1985

Low Pressure Oxidation Added June 1971. Incinerator Added April 1972. Co-thickening Primary & Secondary Sludges Through September 1985

Three 0 345 Mgal Gravity Thickeners Added. Converted 4 Digesters to Thickeners in mid 1980s. Separate Municipal Primary Opened 1980.

	Co-thick Sludge Low Pressure Oxidation *dry tons*	Co-thick Sludge Vacuum Filter dry tons	Co-thick Sludge Incinerated *dry tons*	Co-thick Sludge Incinerator Ash *dry tons*	Offsite Disposal Amounts All Residuals *dry tons*	Offsite Disposal Destination All Residuals		
Oct-84	1278	86	0	0	86	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	Puzzled by large drop in wet filter cake lbs (looks like a decimal problem)
Nov-84	1265	794	0	0	794	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Dec-84	1209	911	0	0	911	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Jan-85	?	?	?	?	?	Three Rivers or Watervliet Landfill?	no solids handling pages found	
Feb-85	1,090	283	0	0	283	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Mar-85	1,088	457	0	0	457	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Apr 85	1,511	535	0	0	535	Three Rivers or Watervliet Landfill?	primary & secondary sludge co thickened	Incinerator evidently out of service
May-85	1,206	603	0	0	603	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Jun-85	1,105	967	0	0	967	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Jul-85	1,097	934	0	0	934	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Aug-85	1,061	868	0	0	868	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service
Sep-85	1,125	895	0	0	895	Three Rivers or Watervliet Landfill?	primary & secondary sludge co-thickened	Incinerator evidently out of service WAR Bldg in service Sept 1985??

Kalamazoo Water Reclamation Plant Solids Handling October 1985 to February 1999

Wet Air Regeneration Added October 1985. Added Differential Sedimentation and Elutriation in June 1988 Separate Thickening Primary and Secondary (Carbon) Sludges Started in October 1985. Belt Presses Replaced Vacuum Filters LPO Shut Down in 1990 and used as Back Up Only until 1996.

	Primary Sludge Low Pressure Oxidation dry tons	Primary Sludge Belt/Vacuum Filter Press dry tons	Primary Sludge Incinerated dry tons	Primary Sludge Incinerator Ash dry tons	Primary Sludge Belt Press to Landfill dry tons	Secondary Sludge Intermediate Pressure Oxidation dry tons	Secondary Sludge WAR/DSE dry tons	Secondary Sludge Belt Press to Landfill dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals	
Oct-85	773	571	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Nov-85	413	195	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Dec-85	503	822	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Jan-86	538	393	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Feb-86	435	584	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Michigan Disposal hauled 679 5 wet tons of solids
Mar-86	468	397	205	52	0	?	?	0	52	Likely Three Rivers or Watervliet Landfill	incinerator started up March 20
Apr-86	530	1,001	1,001	274	0	?	?	0	274	Likely Three Rivers or Watervliet Landfill	
May-86	543	542	542	150	0	?	?	0	150	Likely Three Rivers or Watervliet Landfill	
Jun-86	581	498	498	154	0	?	?	0	154	Likely Three Rivers or Watervliet Landfill	
Jul-86	567	450	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Aug-86	441	425	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Sep-86	523	448	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Oct-86	616	626	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Nov-86	520	405	0	0	0	?	?	0	0	Likely Three Rivers or Watervliet Landfill	Incinerator evidently out of service
Dec-86	533	451	358	82	0	?	?	0	82	Likely Three Rivers or Watervliet Landfill	Incinerator out of service on December 24
Jan-87	456	397	397	95	0	?	?	0	95	Likely Three Rivers or Watervliet Landfill	incomplete WAR data
Feb-87	387	399	399	87	0	?	9	0	97	Likely Three Rivers or Watervliet Landfill	incomplete WAR data
Mar-87	583	482	86	18	0	2835	6	0	24	Likely Three Rivers or Watervliet Landfill	
Apr-87	371	346	346	77	0	2524	14	0	91	Likely Three Rivers or Watervliet Landfill	
May-87	591	366	366	89	0	3233	9	0	98	Likely Three Rivers or Watervliet Landfill	
Jun-87	502	902	902	187	0	3797	14	0	200	Likely Three Rivers or Watervliet Landfill	
Jul-87	684	676	676	353	0	2535	7	0	360	Likely Three Rivers or Watervliet Landfill	
Aug-87	658	654	654	302	0	2442	8	0	310	Likely Three Rivers or Watervliet Landfill	
Sep-87	656	637	637	299	0	2520	13	0	312	Likely Three Rivers or Watervliet Landfill	
Oct-87	647	547	547	357	0	3743	15	0	373	Likely Three Rivers or Watervliet Landfill	
Nov-87	775	971	971	551	0	4276	6	0	557	Likely Three Rivers or Watervliet Landfill	Michigan Disposal hauled 452 4 wet tons of sludge
Dec-87	563	746	637	121	0	3972	6	0	128	Likely Three Rivers or Watervliet Landfill	
Jan-88	563	746	637	153	0	3063	7	0	160	Likely Three Rivers or Watervliet Landfill	
Feb 88	687	878	843	151	0	3325	10	0	161	Likely Three Rivers or Watervliet Landfill	
Mar-88	773	1,246	1,246	193	0	4093	10	0	203	Likely Three Rivers or Watervliet Landfill	
Apr-88	849	591	591	176	0	4218	10	0	186	Likely Three Rivers or Watervliet Landfill	
May-88	849	547	547	222	0	4468	8	0	229	Likely Three Rivers or Watervliet Landfill	
Jun-88	908	463	463	245	0	3325	64	0	309	Likely Three Rivers or Watervliet Landfill	
Jul-88	906	700	700	220	0	3421	135	0	355	Likely Three Rivers or Watervliet Landfill	
Aug-88	779	550	550	128	0	3193	189	0	317	Likely Three Rivers or Watervliet Landfill	
Sep-88	688	461	461	140	0	3695	238	0	378	Likely Three Rivers or Watervliet Landfill	
Oct 88	724	509	509	183	0	3250	272	0	454	Likely Three Rivers or Watervliet Landfill	
Nov-88	604	455	455	153	0	2474	251	0	404	Likely Three Rivers or Watervliet Landfill	
Dec-88	677	366	366	109	0	3622	247	0	356	Likely Three Rivers or Watervliet Landfill	
Jan-89	655	498	498	129	0	2471	172	0	301	Likely Three Rivers or Watervliet Landfill	
Feb-89	638	395	395	113	0	2530	201	0	313	Likely Three Rivers or Watervliet Landfill	
Mar-89	665	385	385	123	0	3991	280	0	403	Likely Three Rivers or Watervliet Landfill	

Kalamazoo Water Reclamation Plant Solids Handling October 1985 to February 1999

Wet Air Regeneration Added October 1985. Added Differential Sedimentation and Elutriation in June 1988. Separate Thickening Primary and Secondary (Carbon) Sludges Started in October 1985. Belt Presses Replaced Vacuum Filters. LPO Shut Down in 1990 and used as Back Up Only until 1996.

	Primary Sludge Low Pressure Oxidation	Primary Sludge Belt/Vacuum Filter Press	Primary Sludge Incinerated	Primary Sludge Incinerator Ash	Primary Sludge Belt Press to Landfill	Secondary Sludge Intermediate Pressure Oxidation	Secondary Sludge WAR/DSE	Secondary Sludge Belt Press to Landfill	Offsite Disposal Amounts All Residuals	Offsite Disposal Destination All Residuals
	dry tons	*dry tons*	*dry tons*	*dry tons*	*dry tons*	*dry tons*	*dry tons*	*dry tons*	*dry tons*	
Apr-89	1,046	714	714	276	0	3102	217	0	493	Likely Three Rivers or Watervliet Landfill
May-89	1,080	716	716	183	0	2674	167	0	350	Likely Three Rivers or Watervliet Landfill
Jun-89	728	523	523	93	0	3612	166	0	258	Likely Three Rivers or Watervliet Landfill
Jul-89	880	383	383	180	0	3593	119	0	299	Likely Three Rivers or Watervliet Landfill
Aug-89	708	517	517	201	0	3794	139	0	340	Likely Three Rivers or Watervliet Landfill
Sep-89	664	435	435	140	0	3601	144	0	284	Likely Three Rivers or Watervliet Landfill
Oct-89	685	502	502	133	0	3624	150	0	282	Likely Three Rivers or Watervliet Landfill
Nov-89	624	488	488	150	0	2889	147	0	296	Likely Three Rivers or Watervliet Landfill
Dec-89	715	396	396	130	0	2916	133	0	262	Likely Three Rivers or Watervliet Landfill
Jan-90	706	503	503	128	0	3295	195	0	323	Likely Three Rivers or Watervliet Landfill
Feb-90	723	522	522	189	0	3403	201	0	390	Likely Three Rivers or Watervliet Landfill
Mar-90	720	504	504	164	0	3373	215	0	379	Likely Three Rivers or Watervliet Landfill
Apr-90	753	536	?	115	0	3431	166	0	280	Likely Three Rivers or Watervliet Landfill
May-90	94	592	590	249	0	3249	195	0	443	Likely Three Rivers or Watervliet Landfill
Jun-90	57	529	523	241	0	3316	153	0	393	Likely Three Rivers or Watervliet Landfill
Jul-90	628	707	699	262	0	3467	148	0	410	Likely Three Rivers or Watervliet Landfill
Aug-90	561	874	869	285	0	3632	194	0	479	Likely Three Rivers or Watervliet Landfill
Sep-90	676	774	766	233	0	3422	211	0	444	Likely Three Rivers or Watervliet Landfill
Oct-90	591	688	683	230	0	3575	205	0	435	Likely Three Rivers or Watervliet Landfill
Nov-90	621	715	705	182	0	3117	189	0	371	Likely Three Rivers or Watervliet Landfill
Dec-90	327	674	667	221	0	3135	173	0	394	Likely Three Rivers or Watervliet Landfill
Jan-91	145	?	?	211	0	3567	202	0	412	Likely Three Rivers or Watervliet Landfill
Feb-91	88	540	536	165	0	2909	163	0	328	Likely Three Rivers or Watervliet Landfill
Mar-91	7	662	658	213	0	3429	181	0	394	Likely Three Rivers or Watervliet Landfill
Apr-91	18	642	635	233	0	3583	173	0	406	Likely Three Rivers or Watervliet Landfill
May-91	0	663	657	216	0	3569	166	0	381	Likely Three Rivers or Watervliet Landfill
Jun-91	0	731	722	248	0	3516	173	0	420	Likely Three Rivers or Watervliet Landfill
Jul-91	240	569	560	177	0	3781	194	0	371	Likely Three Rivers or Watervliet Landfill
Aug-91	0	721	713	264	0	3951	223	0	487	Likely Three Rivers or Watervliet Landfill
Sep-91	0	347	347	248	0	3205	178	0	426	Likely Three Rivers or Watervliet Landfill
Oct-91	0	939	928	427	0	3386	163	0	590	Likely Three Rivers or Watervliet Landfill
Nov-91	26	722	714	270	0	3559	154	0	424	Likely Three Rivers or Watervliet Landfill
Dec-91	114	724	716	216	0	3857	183	0	399	Likely Three Rivers or Watervliet Landfill
Jan-92	0	663	651	218	0	3880	167	0	385	Likely Three Rivers or Watervliet Landfill
Feb-92	0	759	748	243	0	3856	160	0	403	Likely Three Rivers or Watervliet Landfill
Mar-92	0	755	747	217	0	4226	204	0	420	Likely Three Rivers or Watervliet Landfill
Apr-92	0	860	846	228	0	4136	187	0	414	Likely Three Rivers or Watervliet Landfill
May-92	0	770	743	213	0	4083	169	0	382	Likely Three Rivers or Watervliet Landfill
Jun-92	0	686	631	213	0	3644	139	0	352	Likely Three Rivers or Watervliet Landfill
Jul-92	0	681	661	225	0	3669	133	0	357	Likely Three Rivers or Watervliet Landfill
Aug-92	247	640	640	234	0	4394	199	0	433	Likely Three Rivers or Watervliet Landfill
Sep-92	0	737	737	311	0	4038	192	0	502	Likely Three Rivers or Watervliet Landfill

Kalamazoo Water Reclamation Plant Solids Handling October 1985 to February 1999

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	Primary Sludge Low Pressure Oxidation dry tons	Primary Sludge Belt/Vacuum Filter Press dry tons	Primary Sludge Incinerated dry tons	Primary Sludge Incinerator Ash dry tons	Primary Sludge Belt Press to Landfill dry tons	Secondary Sludge Intermediate Pressure Oxidation dry tons	Secondary Sludge WAR/DSE dry tons	Secondary Sludge Belt Press to Landfill dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals	
Oct-92	0	858	836	306	0	4069	212	0	518	Likely Three Rivers or Watervliet Landfill	
Nov-92	97	646	628	201	0	4057	164	0	365	Likely Three Rivers or Watervliet Landfill	
Dec-92	19	645	627	239	0	3670	194	0	433	Likely Three Rivers or Watervliet Landfill	
Jan-93	0	711	698	258	0	3804	180	0	437	Likely Three Rivers or Watervliet Landfill	
Feb-93	0	605	590	239	0	3374	122	0	361	Likely Three Rivers or Watervliet Landfill	
Mar-93	59	643	630	239	0	3740	201	0	440	Likely Three Rivers or Watervliet Landfill	
Apr-93	0	585	567	233	0	3710	223	0	456	Likely Three Rivers or Watervliet Landfill	
May-93	0	687	687	309	0	3653	226	0	535	Likely Three Rivers or Watervliet Landfill	
Jun-93	0	706	706	293	0	3540	201	0	493	Likely Three Rivers or Watervliet Landfill	
Jul-93	163	660	639	264	0	3933	318	0	581	Likely Three Rivers or Watervliet Landfill	
Aug-93	0	786	771	389	0	3657	326	400	1,115	Likely Three Rivers or Watervliet Landfill	
Sep-93	0	779	766	332	0	2782	283	0	615	Likely Three Rivers or Watervliet Landfill	
Oct-93	0	854	829	394	0	2930	239	0	633	Likely Three Rivers or Watervliet Landfill	
Nov-93	0	532	532	355	0	2948	265	0	620	Likely Three Rivers or Watervliet Landfill	
Dec-93	0	817	793	321	0	2990	281	0	602	Likely Three Rivers or Watervliet Landfill	
Jan-94	36	790	772	248	0	3804	180	0	428	Likely Three Rivers or Watervliet Landfill	
Feb-94	272	663	639	174	0	2449	187	0	361	Likely Three Rivers or Watervliet Landfill	
Mar-94	0	784	755	258	0	2613	179	0	437	Likely Three Rivers or Watervliet Landfill	
Apr-94	0	742	717	202	0	2792	183	0	384	Likely Three Rivers or Watervliet Landfill	
May-94	0	822	800	236	0	2790	185	0	421	Likely Three Rivers or Watervliet Landfill	
Jun-94	0	833	812	247	0	3232	175	0	422	Likely Three Rivers or Watervliet Landfill	
Jul-94	0	713	698	238	0	2816	189	0	428	Likely Three Rivers or Watervliet Landfill	
Aug-94	0	793	774	260	0	3112	171	0	432	Likely Three Rivers or Watervliet Landfill	
Sep-94	0	799	783	241	0	2658	220	0	461	Likely Three Rivers or Watervliet Landfill	
Oct-94	0	838	820	263	0	3166	151	0	414	Likely Three Rivers or Watervliet Landfill	
Nov-94	412	691	655	124	0	2649	136	0	260	Likely Three Rivers or Watervliet Landfill	
Dec-94	0	769	743	236	0	3415	126	0	362	Likely Three Rivers or Watervliet Landfill	
Jan-95	0	781	781	205	0	3034	136	0	341	Likely Three Rivers or Watervliet Landfill	
Feb-95	0	697	697	196	0	3044	71	0	267	Likely Three Rivers or Watervliet Landfill	
Mar-95	198	781	781	164	0	3724	134	0	298	Likely Three Rivers or Watervliet Landfill	
Apr-95	16	716	716	226	0	3506	189	0	415	Likely Three Rivers or Watervliet Landfill	
May-95	0	733	733	224	0	3133	177	0	401	Likely Three Rivers or Watervliet Landfill	
Jun-95	0	887	887	230	0	2998	120	0	349	Likely Three Rivers or Watervliet Landfill	
Jul-95	0	760	760	228	0	3076	150	0	378	Likely Three Rivers or Watervliet Landfill	
Aug-95	0	758	758	291	0	3195	160	0	451	Likely Three Rivers or Watervliet Landfill	
Sep-95	0	846	846	273	0	2845	24	0	297	Likely Three Rivers or Watervliet Landfill	
Oct-95	208	660	660	172	0	2866	68	0	239	Likely Three Rivers or Watervliet Landfill	
Nov-95	0	784	784	282	0	3212	134	0	416	Likely Three Rivers or Watervliet Landfill	
Dec-95	0	733	733	244	0	3636	141	0	386	Likely Three Rivers or Watervliet Landfill	
Jan-96	0	796	796	283	0	3434	153	0	437	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Feb-96	242	721	721	214	0	3208	167	0	382	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Mar-96	535	821	821	111	0	3208	219	0	330	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE

Kalamazoo Water Reclamation Plant Solids Handling October 1985 to February 1999

Wet Air Regeneration Added October 1985. Added Differential Sedimentation and Elutriation in June 1988. Separate Thickening Primary and Secondary (Carbon) Sludges Started in October 1985. Belt Presses Replaced Vacuum Filters. LPO Shut Down in 1990 and used as Back Up Only until 1996.

	Primary Sludge Low Pressure Oxidation *dry tons*	Primary Sludge Belt/Vacuum Filter Press *dry tons*	Primary Sludge Incinerated *dry tons*	Primary Sludge Incinerator Ash *dry tons*	Primary Sludge Belt Press to Landfill *dry tons*	Secondary Sludge Intermediate Pressure Oxidation *dry tons*	Secondary Sludge WAR/DSE *dry tons*	Secondary Sludge Belt Press to Landfill *dry tons*	Offsite Disposal Amounts All Residuals *dry tons*	Offsite Disposal Destination All Residuals	
Apr-96	60	757	757	197	0	3233	200	0	397	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
May-96	21	899	899	246	0	3779	179	0	425	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Jun-96	0	807	807	256	0	3060	140	0	396	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Jul-96	0	890	890	312	0	4166	107	0	419	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Aug-96	0	863	863	296	0	3282	104	0	400	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Sep-96	0	774	774	296	0	3615	74	0	370	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Oct-96	0	878	878	316	0	4038	107	0	423	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Nov-96	0	898	898	360	0	4272	152	0	511	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Dec-96	0	932	932	376	0	4333	85	0	462	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Jan-97	0	859	859	265	0	4049	129	0	393	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Feb-97	0	707	707	286	0	3591	197	0	483	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Mar-97	0	837	837	319	0	3374	281	0	601	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Apr-97	0	933	933	259	0	3691	276	0	536	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
May-97	0	986	986	274	0	2958	242	0	516	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Jun-97	0	967	967	293	0	2407	152	0	445	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Jul-97	0	868	868	251	0	2394	227	0	478	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Aug-97	0	1,024	1,024	286	0	2458	234	0	521	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Sep-97	0	845	845	247	0	2184	240	0	487	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Oct-97	0	884	884	301	0	1966	183	0	484	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Nov-97	0	816	816	228	0	1947	157	0	386	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Dec-97	0	858	858	264	0	1853	187	0	451	Likely Three Rivers or Watervliet Landfill	Using Carbon Balance Spreadsheet for WAR numbers and Ash Balance for DSE
Jan-98	0	768	603	194	165	1979	236	0	595	Likely Three Rivers or Watervliet Landfill	
Feb-98	0	874	874	223	0	1909	227	0	450	Likely Three Rivers or Watervliet Landfill	
Mar-98	0	805	805	203	0	1297	125	0	327	Likely Three Rivers or Watervliet Landfill	
Apr-98	0	894	894	225	0	2189	108	88	421	Likely Three Rivers or Watervliet Landfill	
May-98	0	956	956	249	0	1803	127	72	447	Likely Three Rivers or Watervliet Landfill	
Jun-98	0	744	713	196	31	1708	175	28	430	Likely Three Rivers or Watervliet Landfill	
Jul-98	0	941	624	147	317	2020	121	23	608	Likely Three Rivers or Watervliet Landfill	
Aug-98	0	964	685	159	280	2153	159	56	654	Likely Three Rivers or Watervliet Landfill	
Sep-98	0	845	742	191	103	1646	101	62	457	Likely Three Rivers or Watervliet Landfill	
Oct-98	0	949	931	240	17	1590	10	16	284	Likely Three Rivers or Watervliet Landfill	
Nov-98	0	929	914	194	15	1805	43	43	295	Likely Three Rivers or Watervliet Landfill	
Dec-98	0	874	819	193	55	1799	46	22	316	Likely Three Rivers or Watervliet Landfill	
Jan-99	0	378	461	134	378	2198	29	73	613	Likely Three Rivers or Watervliet Landfill	
Feb-99	0	768	0	0	768	1873	101	291	1,160	Likely Three Rivers or Watervliet Landfill	

Kalamazoo Water Reclamation Plant Solids Handling March 1999 to February 2002

Incinerator Out of Service January 1999. DSE Out of Service March 1999 Belt Pressing Some Secondary Solids.
Separate Gravity Thickening of Primary and Secondary Sludges

	Primary Sludge Belt Filter Press to Landfill dry tons	Secondary Sludge Intermediate Pressure Oxidation dry tons	Secondary Sludge Belt Filter Press to Landfill dry tons	Co-thick Sludge Belt Filter Press dry tons	Offsite Disposal Amounts All Residuals dry tons	Offsite Disposal Destination All Residuals
Mar-99	842	1458	586	0	1,428	Either Watervliet, Three Rivers, or Coopersville Landfills
Apr-99	866	1379	429	0	1,295	Either Watervliet, Three Rivers, or Coopersville Landfills
May-99	942	1078	638	0	1,579	Either Watervliet, Three Rivers, or Coopersville Landfills
Jun-99	809	941	603	0	1,413	Either Watervliet, Three Rivers, or Coopersville Landfills
Jul 99	747	806	421	0	1,168	Either Watervliet, Three Rivers, or Coopersville Landfills
Aug-99	891	1078	477	0	1,368	Either Watervliet, Three Rivers, or Coopersville Landfills
Sep-99	791	1275	269	0	1,061	Either Watervliet, Three Rivers, or Coopersville Landfills
Oct-99	874	1357	376	0	1,250	Either Watervliet, Three Rivers, or Coopersville Landfills
Nov-99	883	1201	387	0	1,270	Either Watervliet, Three Rivers, or Coopersville Landfills
Dec-99	890	1310	413	0	1,303	Either Watervliet, Three Rivers, or Coopersville Landfills
Jan-00	840	1310	140	0	980	Either Watervliet, Three Rivers, or Coopersville Landfills
Feb-00	992	1229	301	0	1,293	Either Watervliet, Three Rivers, or Coopersville Landfills
Mar-00	1147	1236	364	0	1,510	Either Watervliet, Three Rivers, or Coopersville Landfills
Apr-00	990	1220	314	0	1,304	Either Watervliet, Three Rivers, or Coopersville Landfills
May-00	988	1182	326	0	1,315	Either Watervliet, Three Rivers, or Coopersville Landfills
Jun-00	962	937	310	0	1,272	Either Watervliet, Three Rivers, or Coopersville Landfills
Jul-00	915	1079	303	0	1,219	Either Watervliet, Three Rivers, or Coopersville Landfills
Aug-00	962	1173	280	0	1,243	Either Watervliet, Three Rivers, or Coopersville Landfills
Sep-00	984	1150	388	0	1,372	Either Watervliet, Three Rivers, or Coopersville Landfills
Oct-00	904	1196	552	0	1,456	Either Watervliet, Three Rivers, or Coopersville Landfills
Nov-00	961	1373	702	0	1,663	Either Watervliet, Three Rivers, or Coopersville Landfills
Dec-00	794	1296	459	0	1,253	Either Watervliet, Three Rivers, or Coopersville Landfills
Jan-01	821	1302	278	0	1,099	Either Watervliet, Three Rivers, or Coopersville Landfills
Feb-01	588	859	254	0	842	Either Watervliet, Three Rivers, or Coopersville Landfills
Mar-01	631	1044	674	0	1,305	Either Watervliet, Three Rivers, or Coopersville Landfills
Apr-01	915	1287	296	0	1,211	Either Watervliet, Three Rivers, or Coopersville Landfills
May-01	953	1223	232	0	1,185	Either Watervliet, Three Rivers, or Coopersville Landfills
Jun-01	851	1211	269	0	1,119	Either Watervliet, Three Rivers, or Coopersville Landfills
Jul-01	925	1204	306	0	1,231	Either Watervliet, Three Rivers, or Coopersville Landfills
Aug-01	905	1079	264	0	1,170	Either Watervliet, Three Rivers, or Coopersville Landfills
Sep-01	1036	1100	545	0	1,581	Either Watervliet, Three Rivers, or Coopersville Landfills
Oct-01	1127	969	282	0	1,409	Either Watervliet, Three Rivers, or Coopersville Landfills
Nov-01	1076	1016	384	0	1,460	Either Watervliet, Three Rivers, or Coopersville Landfills
Dec-01	1094	887	333	0	1,427	Either Watervliet, Three Rivers, or Coopersville Landfills
Jan-02	1223	1110	202	0	1,425	Either Watervliet, Three Rivers, or Coopersville Landfills
Feb-02	963	900	136	88	1,186	Either Watervliet, Three Rivers, or Coopersville Landfills

Kalamazoo Water Reclamation Plant Solids Handling March 2002 to March 2003

Wet Air Regeneration Out of Service in March 2002 Cothickening and Belt Pressing all Solids in March 2002

Primary and Secondary Sludges Co-thickened in Gravity Thickeners and Belt Pressed. Occasionally Solids are Heat Pasteurized with Lime Addition.

	Co-thick Sludge Belt Filter Press *dry tons*	Offsite Disposal Amounts All Residuals *dry tons*	Offsite Disposal Destination All Residuals
Mar-02	1867	1867	Either Watervliet, Three Rivers, or Coopersville Landfills
Apr-02	1770	1770	Either Watervliet, Three Rivers, or Coopersville Landfills
May 02	1941	1941	Either Watervliet, Three Rivers, or Coopersville Landfills
Jun-02	1741	1741	Either Watervliet, Three Rivers, or Coopersville Landfills
Jul-02	1595	1595	Either Watervliet, Three Rivers, or Coopersville Landfills
Aug-02	1465	1465	Either Watervliet, Three Rivers, or Coopersville Landfills
Sep-02	1569	1569	Either Watervliet, Three Rivers, or Coopersville Landfills
Oct-02	1788	1788	Either Watervliet, Three Rivers, or Coopersville Landfills
Nov-02	1584	1584	Either Watervliet, Three Rivers, or Coopersville Landfills
Dec-02	1676	1676	Either Watervliet, Three Rivers, or Coopersville Landfills
Jan-03	1721	1721	Either Watervliet, Three Rivers, or Coopersville Landfills
Feb 03	1558	1558	Either Watervliet, Three Rivers, or Coopersville Landfills
Mar-03	1852	1852	Either Watervliet, Three Rivers, or Coopersville Landfills

History of Solids Disposal Methods at the City of Kalamazoo
1955 to Present

There has been a long and varied history of solids disposal practices and locations used by the City of Kalamazoo since the wastewater treatment plant began operation in February 1955. These disposal practices generally followed the currently acceptable practices employed by the wastewater treatment plant industry as well as the community in general. Unfortunately for this process, the history of solids disposal from this facility has not been nearly as well documented as the other wastewater treatment plant processes. Numerous files have been reviewed, former employees consulted and plant operational records reviewed; however, some of the specific information, such as exact volumes or amounts of solids disposed of when and where, are not available throughout the entire operation of the City of Kalamazoo Wastewater Treatment Plant. Detailed below is a summary of the available information.

February 1955 through May 1967

Solids treatment at the City of Kalamazoo during this time period consisted of anaerobic digestion with vacuum filtration. Even after the addition of secondary treatment in 1967, these same methods of solids treatment were used for several more years. There appeared to be several methods of disposal that were ongoing as well during this time frame. One method was to pump the digested solids into a set of sludge drying beds located on site where the current secondary aeration tanks are located. The solids, after they were dried, were removed by hand and either landfilled or, as some information suggests, beneficially reused on at least two (2) area golf courses, to assist in a leaf composting operation or made available to the general public for landscaping. Another method was to dewater the solids using the vacuum filters and then haul the material to a landfill. (See Attachment #1, Item 15. for a list of landfills utilized by the City of Kalamazoo Water Reclamation Plant.) Another method that is mentioned is a series of waste ponds located on site at various locations. How the solids were then treated is not stated. Another method used involved placing the digested solids into tanker trucks. The solids were then taken offsite to an unknown location for possible treatment and disposal. Please note that volumes or amounts of solids disposed of using these various methods are listed (when available) on the form entitled "Kalamazoo Water Reclamation Plant Solids Handling February 1955 to May 1967".

June 1967 through May 1971

In order to find a different method of solids disposal, the City of Kalamazoo obtained property on the northeast corner of East Michigan Avenue and Nazareth Avenue on the City's east side. On this property, several lagoons were constructed to receive anaerobically-digested solids. The goal was to have an off-site disposal area that could handle the growing volumes of solids being produced at the wastewater treatment plant. With the addition of secondary treatment in 1967, this meant a significant increase of solids would need to be handled and disposed of in an efficient manner. Twin six-inch sludge lines were constructed between the wastewater treatment plant and the new sludge lagoons on the east side. In June 1967, the first solids were pumped up to this new disposal site. For purposes of this report, this location has been labeled the Eastside Byproducts Solids Disposal Area (EBSDA).

At about this same time, the City of Kalamazoo Wastewater Treatment Plant began receiving wastewater from a large pharmaceutical manufacturer located in the Kalamazoo area. This waste stream was very rich in organic matter as a result of fermentation processes to produce antibiotics, difficulties were encountered in the anaerobic digestion process. Most likely, the source of these difficulties were trace amounts of antibiotics being received from the pharmaceutical manufacturer. Regardless of the reasons, it was determined that the anaerobic digesting process was significantly impacted. This led to partially digested sludge being sent to these lagoons on the east side. Consequently, there were numerous odor-related issues and concerns. Local citizens reacted strongly to these issues at the EBSDA and some immediate changes were sought. However, until other methods of stabilization and disposal could be obtained, disposal of solids continued to the EBSDA. Various interim measures to control odors were used including large flexible plastic covers. By May of 1971, other means of solids handling were implemented.

June 1971 through September 1985

By June of 1971, a low-pressure oxidation (LPO) system had been installed and became operational at the City of Kalamazoo Water Reclamation Plant. This process, which involved "pressure-cooking" solids under pressure and temperature, stabilized the solids so they could be more easily dewatered for disposal or further treatment. All solids were co-thickened, both primary and secondary, and handled through the LPO system. In April 1972, a multiple-hearth Nichols-Hershoff sludge incinerator was constructed next to the existing filter building. All solids, after treatment in the Zimpro LPO process, were dewatered using the vacuum filter presses.

The dewatered solids were then transported by conveyor to the incinerator. The advantage of incineration was a large reduction in sludge volume and the relatively easily disposable ash that was produced. This ash was disposed in a variety of locations, generally to one of the several landfills listed in Attachment #1, item 15. However, some incinerator ash was disposed of at the EBSDA. It was transported by truck where some of the material was used to fill in some of the remaining lagoons still located on that site.

October 1985 through February 1999

Several changes occurred in this time period as well. As detailed in the "Process History" documents (see attached), this is when the City of Kalamazoo Water Reclamation Plant began using powdered activated carbon (PAC) in its secondary treatment process. Part of this process was to regenerate the PAC onsite using an intermediate-pressure oxidation (IPO) system from Zimpro. This process was referred to as wet-air regeneration (WAR). All wasted secondary solids, instead of being co-thickened with primary solids, were thickened separately and then regenerated using the WAR process. This meant that less solids were being process through the LPO/Dewatering/Incinerator system.

Two additional issues occurred that modified disposal issues as well during this time frame. First, solids buildup in the secondary process relatively quickly after the startup of WAR. These solids were subsequently removed using differential/sedimentation and elutriation (DSE) system installed by Zimpro. Solids were removed from the DSE process using plate-frame presses. The second issue was the replacement of the vacuum filters with belt filter presses in the spring of 1990. This greatly aided dewatering and replaced some rather old and antiquated equipment.

Disposal of solids produced was still to a variety of landfills during this time period.

March 1999 through February 2002

In March of 1999, after experiencing only modest success with the DSE process, it was shut down. In January 1999, the incinerator was also shut down. This was done because air emissions regulations were becoming very cumbersome to deal with, the incinerator was in need of significant capital investment and it was old technology that needed to be updated.

This allowed City of Kalamazoo personnel to manage the solids but provided an increased burden on the solids hauling company. Belt pressing of secondary solids on a somewhat routine basis also provided more solids to be transported than had previously been done. Separate gravity thickening of secondary and primary solids was also ongoing.

March 2002 through March 2003

The WAR process was taken down permanently in March 2002. Because of a so Attachment #1, item 15.)

Solids are co-thickened, mostly in the secondary thickeners, and then belt pressed. Occasionally, solids are heat pasteurized with lime addition to produce a "Class A" biosolids. Disposal is in approved landfills (See Attachment #1, item 15).

Miscellaneous Disposal Practices

Most all of the solids, especially after 1965, were disposed of in then-compliant locations such as landfills. However, during this time period (and possibly into the early 1970s), some solids (such as scum and grit) were disposed of onsite where it was buried toward the rear of the property. This was not a common or routine practice of disposal.