Roy F. Weston, Inc.
GSA Raritan Depot
Building 209 Annex (Bay F)
2890 Woodbridge Avenue
Edison, New Jersey 08837-3679
908-321-4200 • Fax 908-494-4021

5561

DATE: 2-8-95

TO: WAM: G. Powell

FROM: Y. Lin, REAC Organic Lab Group Leader

SUBJECT: Preliminary results of Project Pier Drum, WA#0- 098

Attached please find the preliminary results of the above referenced project for the following samples:

Chain(s) of Custody No.: 10027, 03663, 03670, 03671, 03672

Analyses: Pest/PCB

No. of Samples: 11

Matrix: water

ND'S

cc: Central File
M. Barkley
Task Leader: R. Lewis
Analyst: G. Adnassy

2 2 3029

Preliminary Analytical Report Summary
Pier Drum, WA#0-098
February 08, 1995

On 01/13/95 & 01/18/95 REAC received 11 water & 3 soil samples on chains of custody 10027, 03663, 03670, 03671, and 03672 for Pest/PCB analysis by GC/ECD. The water samples are reported here; the soils will be reported separately. All of the water samples were ND.

Low recoveries of surrogate were observed in almost all water samples.

MS and MSD recoveries ranged from 50 to 109% for water samples. All recoveries and RPDs were within QC limits for the water samples.

The initial calibration, the continuing calibrations , PEMs, and resolution check met QC criteria.

The blank was ND.

All the samples were extracted and analyzed within the holding time.

TABLE 1.X Results of the Pest/PCB Analysis in Water Samples
WA#0-098 Pier Drum

Client ID	WBLK111795		EF 00634		EF 00635		EF 00636		EF 00637		EF 00638	
Location	----		----		----		----		----		----	
Analyte	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L
a-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
g-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
b-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Heptachlor	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
d-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Aldrin	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Heptachlor Epoxide	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
g-Chlordane	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
a-Chlordane	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Endosulfan (I)	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
p,p'-DDE	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Dieldrin	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Endrin	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
p,p'-DDD	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Endosulfan (II)	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
p,p'-DDT	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Endrin Aldehyde	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
ndosulfan Sulfate	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Methoxychlor	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Endrin Ketone	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02	ND	0.02
Toxaphene	ND	0.50	ND	0.54	ND	0.52	ND	0.52	ND	0.55	ND	0.54
Aroclor 1016	ND	0.25	ND	0.27	ND	0.26	ND	0.26	ND	0.27	ND	0.27
Aroclor 1221	ND	0.50	ND	0.54	ND	0.52	ND	0.52	ND	0.55	ND	0.54
Aroclor 1232	ND	0.25	ND	0.27	ND	0.26	ND	0.26	ND	0.27	ND	0.27
Aroclor 1242	ND	0.25	ND	0.27	ND	0.26	ND	0.26	ND	0.27	ND	0.27
Aroclor 1248	ND	0.25	ND	0.27	ND	0.26	ND	0.26	ND	0.27	ND	0.27
Aroclor 1254	ND	0.25	ND	0.27	ND	0.26	ND	0.26	ND	0.27	ND	0.27
Aroclor 1260	ND	0.25	ND	0.27	ND	0.26	ND	0.26	ND	0.27	ND	0.27

NO QC EVALUATION HAS BEEN PERFORMED.
[illegible] ESTANTIATED
[illegible] HOULD BE USED
WITH DISCRETION.

TABLE 1.X Results of the Pest/PCB Analysis in Water Samples
WA#0-098 Pier Drum

Client ID	EF 00639		EF 00640		EF 00641	
Location	----		----		----	
Analyte	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L
a-BHC	ND	0.02	ND	0.03	ND	0.02
g-BHC	ND	0.02	ND	0.03	ND	0.02
b-BHC	ND	0.02	ND	0.03	ND	0.02
Heptachlor	ND	0.02	ND	0.03	ND	0.02
d-BHC	ND	0.02	ND	0.03	ND	0.02
Aldrin	ND	0.02	ND	0.03	ND	0.02
Heptachlor Epoxide	ND	0.02	ND	0.03	ND	0.02
g-Chlordane	ND	0.02	ND	0.03	ND	0.02
a-Chlordane	ND	0.02	ND	0.03	ND	0.02
Endosulfan (I)	ND	0.02	ND	0.03	ND	0.02
p,p'-DDE	ND	0.02	ND	0.03	ND	0.02
Dieldrin	ND	0.02	ND	0.03	ND	0.02
Endrin	ND	0.02	ND	0.03	ND	0.02
p,p'-DDD	ND	0.02	ND	0.03	ND	0.02
Endosulfan (II)	ND	0.02	ND	0.03	ND	0.02
p,p'-DDT	ND	0.02	ND	0.03	ND	0.02
Endrin Aldehyde	ND	0.02	ND	0.03	ND	0.02
Endosulfan Sulfate	ND	0.02	ND	0.03	ND	0.02
Methoxychlor	ND	0.02	ND	0.03	ND	0.02
Endrin Ketone	ND	0.02	ND	0.03	ND	0.02
Toxaphene	ND	0.52	ND	0.79	ND	0.54
Aroclor 1016	ND	0.26	ND	0.40	ND	0.27
Aroclor 1221	ND	0.52	ND	0.79	ND	0.54
Aroclor 1232	ND	0.26	ND	0.40	ND	0.27
Aroclor 1242	ND	0.26	ND	0.40	ND	0.27
Aroclor 1248	ND	0.26	ND	0.40	ND	0.27
Aroclor 1254	ND	0.26	ND	0.40	ND	0.27
Aroclor 1260	ND	0.26	ND	0.40	ND	0.27

NO QC EVALUATION HAS BEEN PERFORMED.
[illegible] UNSUBSTANTIATED
AND [illegible] SHOULD BE USED
WITH DISCRETION.

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TABLE 1.X Results of the Pest/PCB Analysis in Water Samples
WA#0-098 Pier Drum

Client ID	WBLK011995		C 00525		C 00526		CF 00527	
Location	----		----		----		----	
Analyte	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L	µg/L	MDL µg/L
a-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.04
g-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.04
b-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Heptachlor	ND	0.02	ND	0.02	ND	0.02	ND	0.04
d-BHC	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Aldrin	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Heptachlor Epoxide	ND	0.02	ND	0.02	ND	0.02	ND	0.04
g-Chlordane	ND	0.02	ND	0.02	ND	0.02	ND	0.04
a-Chlordane	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Endosulfan (I)	ND	0.02	ND	0.02	ND	0.02	ND	0.04
p,p'-DDE	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Dieldrin	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Endrin	ND	0.02	ND	0.02	ND	0.02	ND	0.04
p,p'-DDD	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Endosulfan (II)	ND	0.02	ND	0.02	ND	0.02	ND	0.04
p,p'-DDT	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Endrin Aldehyde	ND	0.02	ND	0.02	ND	0.02	ND	0.04
ndosulfan Sulfate	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Methoxychlor	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Endrin Ketone	ND	0.02	ND	0.02	ND	0.02	ND	0.04
Toxaphene	ND	0.50	ND	0.60	ND	0.55	ND	0.88
Aroclor 1016	ND	0.25	ND	0.30	ND	0.27	ND	0.44
Aroclor 1221	ND	0.50	ND	0.60	ND	0.55	ND	0.88
Aroclor 1232	ND	0.25	ND	0.30	ND	0.27	ND	0.44
Aroclor 1242	ND	0.25	ND	0.30	ND	0.27	ND	0.44
Aroclor 1248	ND	0.25	ND	0.30	ND	0.27	ND	0.44
Aroclor 1254	ND	0.25	ND	0.30	ND	0.27	ND	0.44
Aroclor 1260	ND	0.25	ND	0.30	ND	0.27	ND	0.44

NO QC EVALUATION HAS BEEN PERFORMED.
[illegible] STANTIATED
[illegible] BE USED
WITH [illegible] TION.

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TABLE 2.XX Results of the MS/MSD Analysis for Pest/PCB in Water
WA#0-098 Pier Drum

Sample ID:(EF 00640)

Compound	Sample Conc (µg/L)	MS Spike Added (µg/L)	M S Conc (µg/L)	M S % Rec	MSD Spike Added (µg/L)	M S D Conc (µg/L)	M S D % Rec	RPD	QC Limit % Rec	QC Limit RPD
g-BHC	ND	0.20	0.14	71	0.20	0.15	76	7	46-127	50
Heptachlor	ND	0.20	0.11	55	0.20	0.12	61	9	35-130	31
Aldrin	ND	0.20	0.10	50	0.20	0.10	50	0	34-132	43
Dieldrin	ND	0.40	0.27	68	0.40	0.29	73	7	31-134	38
Endrin	ND	0.40	0.30	76	0.40	0.32	81	6	42-139	45
p,p'-DDT	ND	0.40	0.34	86	0.40	0.35	88	3	23-134	50

Sample ID:(CF 00527)

Compound	Sample Conc (µg/L)	MS Spike Added (µg/L)	M S Conc (µg/L)	M S % Rec	MSD Spike Added (µg/L)	M S D Conc (µg/L)	M S D % Rec	RPD	QC Limit % Rec	QC Limit RPD
g-BHC	ND	0.22	0.18	82	0.22	0.20	91	11	46-127	50
Heptachlor	ND	0.22	0.14	64	0.22	0.15	68	7	35-130	31
Aldrin	ND	0.22	0.15	68	0.22	0.15	68	0	34-132	43
Dieldrin	ND	0.44	0.38	86	0.44	0.39	89	3	31-134	38
Endrin	ND	0.44	0.41	93	0.44	0.43	98	5	42-139	45
p,p'-DDT	ND	0.44	0.44	100	0.44	0.48	109	9	23-134	50

NO QC EVA[illegible] AS BEEN PERFORMED.
AND [illegible] UBSTANTIATED
[illegible] HOULD BE USED
[illegible] RETION.

A:\PDMSMSD.WK3

TABLE 2.XX Results of the Surrogate Recoveries in Water

WA#0-098 Pier Drum

Sample ID	Percent Recovery TCMX	DCBP
WBLK011795	29 *	62
EF 00636	51 *	83
EF 00638	36 *	80
EF 00641	33 *	64
EF 00635	41 *	69
EF 00639	20 *	58 *
EF 00640	25 *	64
EF 00640MS	43 *	70
EF 00640MSD	38 *	63
EF 00634	28 *	46 *
EF 00637	33 *	70
WBLK011995	19 *	49 *
C 00525	38 *	85
C 00526	25 *	78
C 00527	49 *	88
C 00527MS	47 *	86
C 00527MSD	48 *	95

	Advisory QC Limits
Tetrachloro-m-xylene (TCMX)	60-150
Decachlorobiphenyl (DCBP)	60-150

NO QC EVALUATION HAS BEEN PERFORMED.
DATA VALIDITY IS UNSUBSTANTIATED
AND THE DATA SHOULD BE USED
WITH DISCRETION.

A:\SSURRT.WK3

CHAIN OF CUSTODY RECORD/LAB WORK REQUEST

Roy F. Weston, Inc.
REAC, Edison, N.J.
EPA Contract 68-03-3482

Project Name: Pier Drum
Project Number: 03347-040-0098-01
RFW Contact: B. Holderness Phone: X4243

No: 10027

SHEET NO. 1 OF 1

011895

SAMPLE IDENTIFICATION / ANALYSES REQUESTED

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/ Preservative	TCLP Metals	TCLP BNA	TCLP PCB/Pest
574	A00525	A00642	W	1/18/95	1 ea	1L Poly/4°C HNO3	X		
575	B00525	"				1L Amber/4°C		X	
576	C00525	"				1L Amber/4°C			X
577	A00526	A00643				1L Poly/HNO3	X		
578	B00526	"				1L Amber/4°C		X	
579	C00526	"				1L Amber/4°C			X
580	A,D00527	A 00644				1L Poly/HNO3	X		
581	B,E00527	"				1L Amber/4°C		X	
582	C,F00527	"				1L Amber/4°C			X

Matrix:
SD - Sediment
DS - Drum Solids
DL - Drum Liquids
X - Other
PW - Potable Water
GW - Groundwater
SW - Surface Water
SL - Sludge
S - Soil
W - Water
O - Oil
A - Air

Special Instructions: 00527 D, E, F = MS/MSD

FOR SUBCONTRACTING USE ONLY
FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All Analysis	B. Holderness	1/18/95	Michael Van Cliff	1/18/95	14:30	3/metals	Michael Van Cliff	1/18/95			
						6/PCBs, BNA	Michael Van Cliff	1/18/95	Amy Bowman	1-18-95	1500

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Pier Dam
Project Number: 03347040001009801
RFW Contact: R Lewis Phone: 4265

No: 03663

SHEET NO.__OF__

011395

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	TAL Metals	BNA	Pest/PCB	VOA's
516	AD00641		W	1/11/95	2	HNO_3/4°C	X			
517	CD00641				2	4°C		X		
518	EF00641				2				X	
519	GHE00641				3					X
520	BC00645				2					

Special Instructions:

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time
All	[illegible]	1/12/95	Michael Van [illegible]	1/13/95	11:00

Items/Reason	Relinquished By	Date	Received By	Date	Time
1/metals	Michael Van [illegible]	1/13/95	Collen [illegible]	1/13/95	2:30
2/BNA, Pest/PCB	Michael Van [illegible]	1/13/95	[illegible]	1/13/95	14:10
2/VOA	Michael Van [illegible]	1/13/95	Linda Crescente	1/13/95	14:23

8/94

FORM #4

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Pier Drum
Project Number: D3347040001009801
RFW Contact: R Lewis Phone: 4261

No: 03670

SHEET NO.__OF__

01395

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	TAL Metals	BNA	PCB/Pest	VOA's
501	AB00635		W	1/11/95	2	HNO_3/4°C	X			
502	CD00635				2	4°C		X		
503	EF00635				2				X	
504	GHI00635				3					X
505	AB00639				2	HNO_3/4°C	X			
506	CD00639				2	4°C		X		
507	EF00639				2				X	
508	GHI00639				3					X
509	AD00640				2	4°C/HNO_3	X			
510	CD00640				2	4°C		X		
511	EF00640				2				X	
512	GHI00640				3					X

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:
*only 2 bottles I 00640 missing.

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	[illegible]	1/12/95	[illegible]	1/13/95	11:00

Items/Reason	Relinquished By	Date	Received By	Date	Time
3/metals	[illegible]	1/13/95	[illegible]	1/13/95	2:30
6/BNA/PCB	[illegible]	1/13/95	[illegible]	1/13/95	1410
3/VOA	[illegible]	1/13/95	[illegible]	1/13/95	1423

FORM #4

8/94

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Pier Dam
Project Number: 03347 040 001 0D98 01
RFW Contact: R Lewis Phone: 4269

No: 03671

SHEET NO.__OF__

01595 -

Sample Identification / Analyses Requested

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	Metals	BNA	Pest/PCB's	VOA's	
496	AB00636		W	1/4/95	2	HNO3 / 4°C	X				
497	CD00636				2	4°C		X			
498	EF00636				2				X		
499	GHI00636				3					X	
500	AB00638				2		X				
501	CD00638				2			X			
502	EF00638				2				X		
503	GHI00638				3					X	

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time
			Michael Van Off	1/13/95	11:40

Items/Reason	Relinquished By	Date	Received By	Date	Time
2/metals	Michael Van Off	1/13/95	Collen Ryan	1/13/95	2:30
4/BNA/pest/PCB's	Michael Van Off	1/13/95	[illegible]	1/13/95	1410
2/VOA	Michael Van Off	1/13/95	Dean Crevier	1/13/95	1423

FORM #4

8/94

REAC, Edison, NJ
(908) 321-4200
EPA Contract 68-C4-0022

CHAIN OF CUSTODY RECORD

Project Name: Pier Drum
Project Number: 03347 040 001009801
RFW Contact: R Lewis Phone: 4269

No: 03672

SHEET NO.__OF__

011395 — **Sample Identification** — **TAL Analyses Requested** — TCLP

REAC #	Sample No.	Sampling Location	Matrix	Date Collected	# of Bottles	Container/Preservative	Metals	Pest/PCB's	BNA's	VOA's	
533	AB00634		W	1/11/95	2	HNO_3/4°C	X				
534	CD00634				2	4°C		X	X		
535	EF00634				2	4°C		X			
536	GHI00634				3	4°C				X	
537	AB00637				2	HNO_3/4°C	X				
538	CD00637				2	4°C			X		
539	EF00637				2			X			
540	GHI00637				3					X	
541	A00642	+	S		1	4°C	X	X	X	X	X
542	CDE00642		S		3	4°C				X	
543	A00643	+			1		X	X	X	X	X
544	CDE00643				3					X	
545	A00644	+			1		X	X	X	X	X
546	CDE00644				3					X	

Matrix:

SD -	Sediment	PW -	Potable Water	S -	Soil
DS -	Drum Solids	GW -	Groundwater	W -	Water
DL -	Drum Liquids	SW -	Surface Water	O -	Oil
X -	Other	SL -	Sludge	A -	Air

Special Instructions:
For A00643, A00644, A00642 > sample gross to Brian Holderness

+ Aliquots removed for MVG various analyses. original bottle relinquished to B. Holderness

* not for WA analysis MK

FOR SUBCONTRACTING USE ONLY

FROM CHAIN OF CUSTODY #

Items/Reason	Relinquished By	Date	Received By	Date	Time	Items/Reason	Relinquished By	Date	Received By	Date	Time
All/Analysis	Ray Lewis	1/12/95	Michael Van Cly	1/13/95	11:00	2/metals	Michael Van Cly	1/13/95	Collenger	1/13/95	2:30
						4/BNA, Pest/PCB	Michael Van Cly	1/13/95	[illegible]	1/13/95	1410
						5/VOA	Michael Van Cly	1/13/95	Lina Cerrado	1/13/95	1423
						3/TCLP	Michael Van Cly	1/13/95			

FORM #4 8/94

'O 1994-383-015