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HAZARDOUS WASTE MANAGEMENT

October 8, 1993

Ms. Barbara Zellmer
Wisconsin Department of Natural Resources
P.O. Box 7921
Madison, WI 53707

Dear Ms. Zellmer:

The attached material shows the results of quarterly monitoring conducted in July 1993 at the HACCO site in Randolph, Wisconsin. The quarterly monitoring is part of the long-term groundwater monitoring program agreed to in the conditional approval of May 1992 by the Wisconsin Department of Natural Resources.

There were no detections of any parameters at the seven wells (MW-17AR, MW-19A, MW-19B, MW-11A, MW-11B, MW-12A, and MW-12B) monitored during the July sampling round. During the April sampling round, methoxychlor had been reported at just above the quantitation limit in MW-12B. Consequently, as discussed in the previous letter (June 29, 1993), monitoring wells MW-12A and MW-12B were analyzed for methoxychlor as part of the July program. Results showed no detectable levels of methoxychlor at either of these wells. These wells will again be monitored for methoxychlor in the October round.

If you have any questions, please call me.

Sincerely,

Richard D. Yabroff, P.E.
Project Manager

leo

Attachments
cc: Allen Wojtas (1)
Joe Brusca (1)
Dave Edwards (1)
Jim Hopkins (1)
Dennis Burchett (1)
Lee Schwalenberg (1)

RMT, INC. — MADISON
744 HEARTLAND TRAIL · MADISON, WI · 53717-1934
P.O. BOX 8923 · MADISON, WI · 53708-8923
608/831-4444 · 608/831-3334 FAX

1064.72:msg:zellmer.2

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-017
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/28/93
STATION ID: MW-11A

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark A. Mieritz 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-016
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/28/93
STATION ID: MW-11B

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark A. Merritt 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-018
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/28/93
STATION ID: MW-12A

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark S. Mentz 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-019
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/28/93
STATION ID: MW-12B

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0 W	ug/L
Xylene, total	<3.0 W	ug/L

Mark A. Mientz 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-013
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/27/93
STATION ID: MW-17AR

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark E. Meuth 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-015
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/27/93
STATION ID: MW-19A

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark A. Merritt 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-014
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/27/93
STATION ID: MW-19B

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark H. Mierzy 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-011
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/27/93
STATION ID: TB-1

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark A. Mieuli 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

CLIENT: HACCO
SAMPLE #: 1974-020
PROJECT #: 01064.72
WORK ORDER #: 1974
WI DNR LAB ID: 113138520

REPORT DATE: 08/12/93
COLLECTION DATE: 07/28/93
STATION ID: TB-2

VOLATILE ORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Ethylbenzene	<1.0	ug/L
Xylene, total	<3.0	ug/L

Mark H. Moentz 8/12/93
Approval Signature

744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923, Phone:(608) 831-4444

RMT INC.
LABORATORIES

Organic GC Data Qualifier Sheet

B(n)	Analyte present in the method blank. If the processes that were applied to the sample were applied to the method blank, the value of the analyte in the method blank would likely be "n".
C	Elevated detection limit (see Case Narrative).
E	Analyte concentration exceeds calibration range (see Case Narrative).
F	Repeated surrogate failure (see Case Narrative).
H(n)	Analysis performed "n" days past holding time.
NR	Not required.
P	Sample vial used for previous analysis.
R	Relative percent difference high (see Case Narrative).
T	Retention time variance; analyte identification not confirmed.
W	Sample received with headspace.

Effective 06/15/93

RMT, Inc., 744 Heartland Trail, P. O. Box 8923, Madison, WI 53708-8923, Phone: 608-831-4444, Fax: 608-831-7530

4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/27/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 17 AR
APPL Sample No: R14973-94459

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	54.9	40-160	

U = Undiluted
ND = None Detected

Tested by: _____

Checked by: _____

4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/28/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 11A
APPL Sample No: R14973-94463

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	67.2	40-160	

U = Undiluted
ND = None Detected

Tested by: Wayne Stymme

Checked by: Mike Roy

4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/28/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 11B
APPL Sample No: R14973-94462

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	58.2	40-160	

U = Undiluted
ND = None Detected

Tested by: _____

Checked by: _____

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/28/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 12A
APPL Sample No: R14973-94464

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	26.1	40-160	

U = Undiluted
ND = None Detected

Tested by: Wayne Hymore

Checked by: Mark Dy

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RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/28/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 12A
APPL Sample No: R14973-94464

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/04/93

Results of OCl Pesticides Water Analysis by EPA Method 8080

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Methoxychlor	µg/L	ND	0.05	U
Surrogate recovery	%	51.5	24-154	

ND = None Detected

Tested by: Steven Tallman

Checked by: Pamela Cooper

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/28/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 12B
APPL Sample No: R14973-94465

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	59.3	40-160	

U = Undiluted
ND = None Detected

Tested by: Wayne Stevenson

Checked by: [illegible]

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RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/28/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 12B
APPL Sample No: R14973-94465

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/04/93

Results of OCl Pesticides Water Analysis by EPA Method 8080

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Methoxychlor	µg/L	ND	0.05	U
Surrogate recovery	%	62.9	24-154	

ND = None Detected

Tested by: Steven Tallman

Checked by: Pamela Cooper

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RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/27/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 19A
APPL Sample No: R14973-94461

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	55.0	40-160	

U = Undiluted
ND = None Detected

Tested by: Wayne Stevenson

Checked by: [illegible]

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RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: 07/27/93
Report Date: 08/24/93

Sample I.D. No: 1064.60
MW 19B
APPL Sample No: R14973-94460

Date Received: 07/30/93
Date Extracted: 08/02/93
Date Analyzed: 08/09/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	56.4	40-160	

U = Undiluted
ND = None Detected

Tested by: Wayne Stevens

Checked by: [illegible]

4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: NA
Report Date: 08/24/93

Sample I.D. No: **BLANK** *Associated samples were taken: 07/27-28/93*
APPL Sample No: R14973-930802W

Date Received: NA
Date Extracted: 08/02/93
Date Analyzed: 08/04/93

Results of OCl Pesticides Water Analysis by EPA Method 8080

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Alachlor	µg/L	ND	0.05	U
Aldrin	µg/L	ND	0.05	U
Benefin	µg/L	ND	0.05	U
α-BHC	µg/L	ND	0.05	U
ß-BHC	µg/L	ND	0.05	U
δ-BHC	µg/L	ND	0.05	U
Captan	µg/L	ND	0.05	U
Carbophenothion	µg/L	ND	0.05	U
Chlordane	µg/L	ND	0.05	U
Dicofol	µg/L	ND	0.05	U
Dieldrin	µg/L	ND	0.05	U
DMPA	µg/L	ND	0.05	U
Endosulfan I	µg/L	ND	0.05	U
Endosulfan II	µg/L	ND	0.05	U
Endosulfan sulfate	µg/L	ND	0.05	U
Endrin	µg/L	ND	0.05	U
Endrin aldehyde	µg/L	ND	0.05	U
Endrin ketone	µg/L	ND	0.05	U
Heptachlor	µg/L	ND	0.05	U
Heptachlor epoxide	µg/L	ND	0.05	U
Lindane	µg/L	ND	0.05	U
2,4'-DDT	µg/L	ND	0.05	U
2,4'-TDE/DDD	µg/L	ND	0.05	U
4,4'-DDE	µg/L	ND	0.05	U
4,4'-DDT	µg/L	ND	0.05	U
4,4'-TDE/DDD	µg/L	ND	0.05	U
Methoxychlor	µg/L	ND	0.05	U
Nitrofen	µg/L	ND	0.05	U
PCNB	µg/L	ND	0.05	U
Toxaphene	µg/L	ND	1.00	U
Surrogate recovery	%	90.0	24-154	

ND = None Detected

Checked by: Pamela Cooper

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Report Date: 08/24/93

Project I.D. No: 1064.60

APPL Spike I.D.: R14973 94449W-94465W 94453A

Concentration Units: µg/L

SPIKES

Method	Analysis	Date	Amt in Sample	Amt Spiked	Results	Percent Recovery	RPD
8080	Lindane	08/02/93	0.00	0.20	0.294	147	25.0
8080	Heptachlor	08/02/93	0.00	0.20	0.205	102	23.4
8080	Aldrin	08/02/93	0.00	0.20	0.202	101	20.2
8080	Dieldrin	08/02/93	0.00	1.6	1.32	82.5	0.76
8080	Endrin	08/02/93	0.00	1.6	1.45	90.6	2.1
8080	4,4'-DDT	08/02/93	0.00	1.6	1.24	77.5	1.6

Surrogate recovery 88.7%

APPL Spike I.D.: R14973 94449W-94465W 94453B

Method	Analysis	Date	Amt in Sample	Amt Spiked	Results	Percent Recovery	RPD
8080	Lindane	08/02/93	0.00	0.20	0.229	114	25.0
8080	Heptachlor	08/02/93	0.00	0.20	0.162	81.0	23.4
8080	Aldrin	08/02/93	0.00	0.20	0.165	82.5	20.2
8080	Dieldrin	08/02/93	0.00	1.6	1.31	81.9	0.76
8080	Endrin	08/02/93	0.00	1.6	1.42	88.7	2.1
8080	4,4'-DDT	08/02/93	0.00	1.6	1.26	78.7	1.6

Surrogate recovery 89.5%

Comments:

Checked By Pamela Cooper

4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Sample Date: NA
Report Date: 08/24/93

Sample I.D. No: **BLANK** *Associated samples were taken: 07/27-28/93*
APPL Sample No: R14973-930802W

Date Received: NA
Date Extracted: 08/02/93
Date Analyzed: 08/22/93

Results of Carbamate Pesticides Water Analysis by EPA Method 632

Compound	Units	Concentration	Quantitation Limit	Dilution Factor
Bromacil	µg/L	ND	1.00	U
Fenuron	µg/L	ND	1.00	U
Monuron	µg/L	ND	1.00	U
Tebuthiuron	µg/L	ND	1.00	U
Surrogate Recovery	%	52.1	40-160	

U = Undiluted
ND = None Detected

Checked by: Pamela Cooper

RMT, Inc.
744 Heartland Trail
Madison, WI 53708-8923
Attn: Kathleen Walker

Report Date: 08/24/93

Project I.D. No: 1064.60

APPL Spike I.D.: R14973 94449W-94465W LL809A

Concentration Units: µg/L

SPIKES

Method	Analysis	Date	Amt in Sample	Amt Spiked	Results	Percent Recovery	RPD
632	Fenuron	08/02/93	0.00	4.00	2.72	68.0	10.8
632	Monuron	08/02/93	0.00	4.00	3.96	99.0	0.8
632	Bromacil	08/02/93	0.00	4.00	3.55	88.8	7.8
632	Tebuthiuron	08/02/93	0.00	4.00	3.38	84.5	8.6

Surrogate recovery 66.5%

APPL Spike I.D.: R14973 94449W-94465W LM809B

Method	Analysis	Date	Amt in Sample	Amt Spiked	Results	Percent Recovery	RPD
632	Fenuron	08/02/93	0.00	4.00	2.44	61.0	10.8
632	Monuron	08/02/93	0.00	4.00	3.93	98.2	0.8
632	Bromacil	08/02/93	0.00	4.00	3.84	96.0	7.8
632	Tebuthiuron	08/02/93	0.00	4.00	3.10	77.5	8.6

Surrogate recovery 67.0%

Comments:

Checked By Pamela Cooper