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GROUNDWATER MONITORING REPORT

FOR

LONG-TERM MONITORING PROGRAM

Closure of Inactive Waste Sites
NYSDEC NOs 915018 A, B, C

Year 1, Round 1 - Spring 1995

Volume 1 of 2 - Report and Appendices A & B

prepared for:

DUNLOP TIRE CORPORATION
Tonawanda, New York

prepared by:

URS CONSULTANTS, INC.
282 Delaware Avenue
Buffalo, New York 14202

G2118

July 1995

URS
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August 4, 1995

Mr. Glenn May
New York State Department of
Environmental Conservation
Division of Solid/Hazardous Waste
270 Michigan Avenue
Buffalo, New York 14203-2999

RE: DUNLOP TIRE CORPORATION
CLOSURE OF INACTIVE WASTE SITE NOS. 915018 A, B, C

Dear Mr. May:

On behalf of Dunlop Tire Corporation, we are forwarding the enclosed Groundwater Monitoring Report, Volume 1 of 2, dated July 1995. The report presents the results of the first round of year 1 sampling and incudes as Appendix B an Analytical Data Assessment Report. Volume 2 of 2 contains only the raw analytical data (Appendix C) and was not forwarded because of its large volume. It is on file with both Dunlop and URS should you wish to review it.

Very truly yours,

URS CONSULTANTS, INC.

Robert E. Murphy

Robert E. Murphy, P.E.
Project Manager

Enc.

cc: Mr. D. Pyanowski - Dunlop Tire Corporation
File: 35246.07, C-1

J:35246.07\wp(bc)8-4-95L.GM

GROUNDWATER MONITORING REPORT FOR THE LONG-TERM MONITORING PROGRAM CLOSURE OF INACTIVE WASTE SITES NYSDEC SITE NOs. 915018 A, B AND C

YEAR 1 - ROUND 1

SPRING 1995

VOLUME 1 OF 2 - REPORT AND APPENDICES A & B

Prepared for:

DUNLOP TIRE CORPORATION

TONAWANDA, NEW YORK

JULY 1995

Prepared by:

URS CONSULTANTS, INC.

282 DELAWARE AVENUE

BUFFALO, NEW YORK 14202

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1.0 INTRODUCTION

This report has been prepared for Dunlop Tire Corporation in accordance with the NYSDEC-approved Long-Term Monitoring Plan, Closure of Inactive Waste Sites NYSDEC Nos. 915018 A,B,C, URS, July 1994 (LTMP). It presents the results of the first of two rounds of sampling required for year 1 of the LTMP.

As discussed in the approved plan, the purpose of year 1 sampling is to provide a comprehensive sample population for selection of site-specific parameters to be monitored in future years. Following the results of the second round of year 1 sampling, an additional report will be issued to evaluate the results of both rounds and to finalize the long-term analytical parameters.

2.0 FIELD PROCEDURES

Field procedures were conducted in accordance with the Field Sampling Plan presented in Appendix C of the LTMP. Well Purging Logs are included in Appendix A. Well locations are shown on Figure 1.

Prior to purging, the integrity of each well was inspected. All wells were observed to be capped and locked, indicating that they had not been tampered with. The seven monitoring wells were purged on April 27, 1995, and sampled on April 28, 1995.

Due to breakage of some sample bottles in transit, and due to the loss of a second shipment, two resampling events were required. Consequently, the data presented in this report are partially from the original April 27 and 28, 1995, sampling event, and partially from the second resample event, May 15 and 16, 1995. However, this in no way affects the representativeness of the results.

3.0 ANALYTICAL RESULTS

As required by the Quality Assurance Project Plan (QAPP) presented in Appendix B of the LTMP, all chemical analysis was performed in accordance with the NYSDEC Analytical Services Protocol (ASP) September 1989, 12/91 Revisions, which meets or exceeds USEPA Contract

Laboratory Program (CLP) protocol. All analytical procedures were performed in accordance with IEA Companies' Standard Operating Procedures (SOP) manual. Also, the laboratory-generated data was assessed independently by URS in accordance with the QAPP. URS' Analytical Data Assessment Report is presented in Appendix B.

The seven wells sampled during Round 1 were analyzed for parameters presented on Table 1. The analytical results are presented below on a well by well basis and a summary of detected analytes are presented on Table 2.

Areas A and B

OMW-A6 (Upgradient)

OMW-A6 is an upgradient well and as such will be used to indicate if downgradient detections might be attributed to onsite sources. There were no VOCs detected in this sample. The only SVOCs detected were phenols which were present at a concentration slightly above its groundwater Applicable or Relevant and Appropriate Requirements (ARAR).

Of the 20 metals on the analytical schedule 18 were detected. Chromium and lead, LTMP identified metals of concern, were detected at concentrations below their respective groundwater ARAR's. Consistent with the pre-closure 1991 analytical results, several other metals of low environmental impact were detected at elevated concentrations. These were iron, magnesium, sodium and calcium. Antimony was the only metal detected above its groundwater ARAR that was not detected in 1991. It is not one of the metals of concern identified in the LTMP. The detected concentrations of the remaining metals were not significant.

OMW-A4 (Downgradient)

There were no VOCs or SVOCs detected in this sample.

Sixteen of the 20 metals were detected. Chromium, a metal of concern, was detected at a concentration greater than OMW-A6, but well below its groundwater ARAR. Calcium, cobalt,

magnesium, manganese, nickel, potassium and sodium were detected at concentrations greater than OMW-A6, however, none of theses metals were determined to be metals of concern for the purposes of the LTMP. Antimony was detected above its ARAR, but less than OMW-A6, and the remaining metals were detected at levels below OMW-A6.

OMW-B3 (Downgradient)

There were no VOCs detected in this sample. Detected SVOCs include acenaphthene, dibenzofuran, fluorene, phenanthrene and anthracene. These compounds were detected at concentrations well below their respective groundwater ARAR's. Phenols were also detected, but were present at a concentration less than OMW-A6.

Eighteen of the 20 metals were detected. Arsenic, a metal of concern, was detected at a concentration greater than OMW-A6, but well below its groundwater ARAR. Chromium and lead, also metals of concern, were detected at concentrations less than OMW-A6. Barium, calcium, cobalt, iron, manganese, nickel, selenium and sodium were detected at concentrations greater than OMW-A6, however, none of these metals were determined to be metals of concern for the purposes of the LTMP. Antimony was detected above its ARAR, but less than OMW-A6, and the remaining metals were detected at levels below OMW-A6.

OMW-B4 (Downgradient)

There were no VOCs or SVOCs detected in this sample. Fourteen of the 20 metals were detected. Calcium, cobalt, magnesium, potassium and sodium were detected at concentrations greater than OMW-A6. None of these metals were determined to be metal of concern for the purposes of the LTMP. Antimony was detected above its ARAR, but less than OMW-A6, and the remaining metals were detected at levels below OMW-A6.

Area C

OMW-C1 (Upgradient)

OMW-C1 is an upgradient well and as such will be used to indicate if downgradient detections might be attributed to onsite sources. There were no VOCs detected in this sample. The only SVOC detected was dietnylphthalate (a common laboratory contaminant as discussed in Appendix B), at a concentration below its groundwater ARAR.

Sixteen of the 20 metals were detected. Chromium, a metal of concern, was detected at a concentration below its groundwater ARAR. Consistent with the pre-closure, 1991 analytical results several other metals of low environmental impact were detected above their respective groundwater ARAR values. These were iron, magnesium and sodium. Antimony was the only metal detected slightly above its groundwater ARAR that was not detected in 1991. It is not one of the metals of concern identified in the LTMP. The detected levels of the remaining metals were not significant.

OMW-C5 (Downgradient)

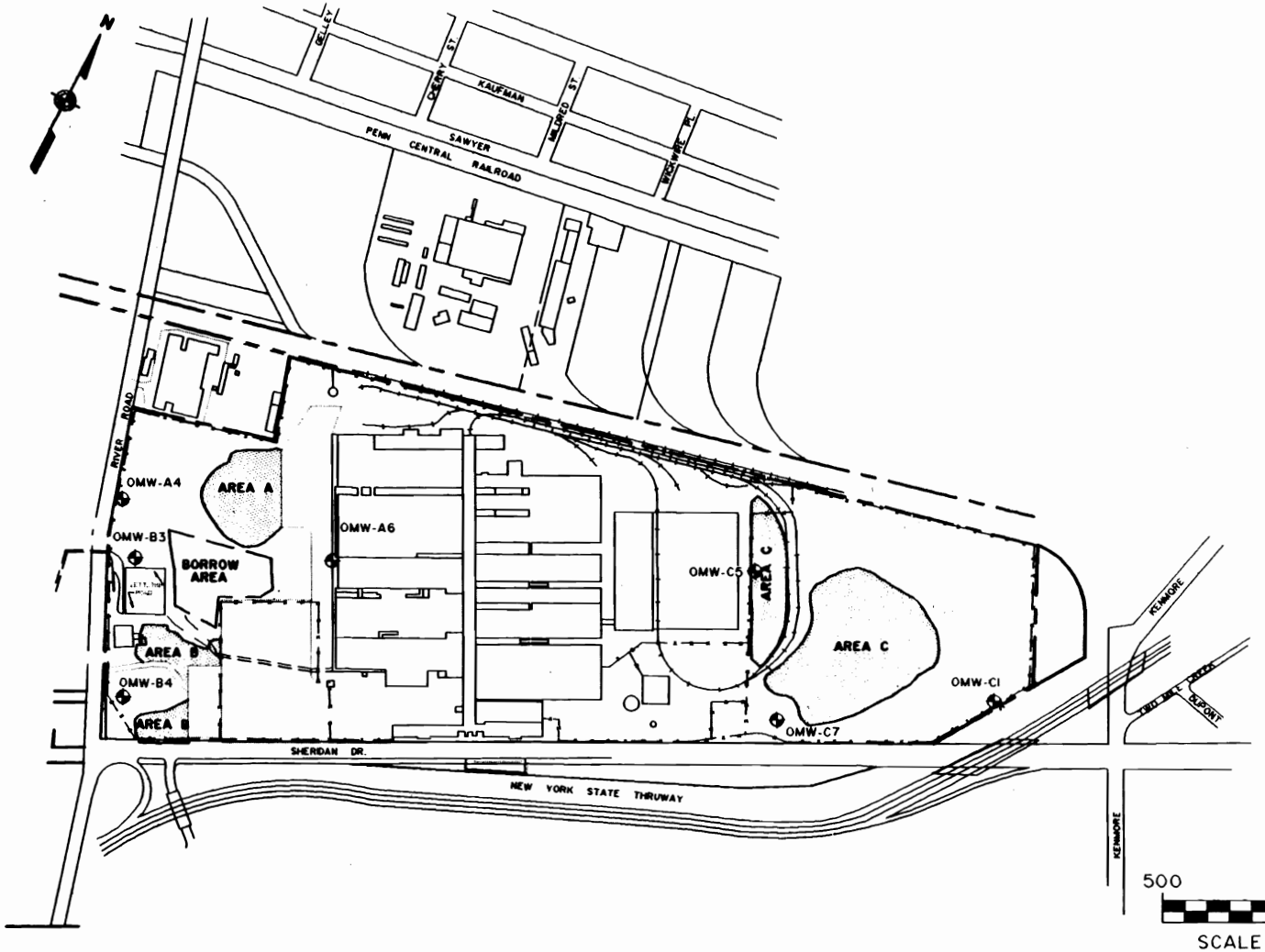
There were no VOCs detected in this sample. Two SVOCs were detected: phenols which were present at a concentration slightly greater than its groundwater ARAR; and diethylphthalate at a concentration equal to OMW-C1.

Seventeen of the 20 metals were detected. Lead, a metal of concern, was detected at a concentration greater than OMW-C1, but well below its groundwater ARAR. Chromium, also a metal of concern, was detected at a concentration less than OMW-C1. Antimony, copper, nickel and silver were detected at concentrations greater than OMW-C1, however, none of these metals were determined to be metals of concern for the purposes of the LTMP. The detected levels of the remaining metals were not significant.

OMW-C7 (Downgradient)

There were no VOCs detected in this sample. Two SVOCs were detected: diethylphthalate, which was also present in OMW-C1 at approximately the same concentration; and bis(2-ethylhexyl)phthalate (a common laboratory contaminant as discussed in Appendix B).

Sixteen of the 20 metals were detected. Cadmium, a metal of concern, was detected at a concentration greater than OMW-C1, but below its groundwater ARAR. Chromium, also a metal of concern, was detected at a concentration less than OMW-C1. Several other metals were detected including antimony, copper, nickel and vanadium at concentrations greater than OMW-C1. None of these metals were determined to be metals of concern for the purposes of the LTMP. The detected levels of the remaining metals were not significant.



NO.	DATE	DESCRIPTION
2	7/11/94	ADDED OMW-A6
1	5/24/94	DELETED OMW-A5

SAMPLING LOCATION MAP

URS CONSULTANTS, INC.

FIGURE 1

TABLE 1

DUNLOP TIRE CORPORATION
LONG-TERM MONITORING PLAN
INACTIVE WASTE SITES 91508 A, B AND C

ANALYTICAL SCHEDULE A

Schedule A (Superfund Deliverable Data Package)

Parameter	Method Number	Reference
TCL Volatiles	91-1	1
TCL Semivolatiles	91-2	1
*TAL Metals (24)		
Aluminum	200.7 CLP-M	
Antimony	200.7 CLP-M	
Arsenic	206.2 CLP-M	
Barium	200.7 CLP-M	
Beryllium	200.7 CLP-M	
Cadmium	200.7 CLP-M	
Calcium	200.7 CLP-M	
Chromium	200.7 CLP-M	
Cobalt	200.7 CLP-M	
Copper	200.7 CLP-M	
Iron	200.7 CLP-M	
Lead	239.2 CLP-M	
Magnesium	200.7 CLP-M	
Manganese	200.7 CLP-M	
Mercury	245.1 CLP-M & 245.5 CLP-M	
Nickel	200.7 CLP-M	
Potassium	200.7 CLP-M	
Selenium	270.2 CLP-M	
Silver	200.7 CLP-M	
Sodium	200.7 CLP-M	
Thallium	279.2 CLP-M	
Vanadium	200.7 CLP-M	
Zinc	200.7 CLP-M	
Cyanide	335.2 CLP-M	
Total Phenols	9065	1
pH (Field)	150.2	1
Specific Conductance (Field)	150.2	1
Temperature (Field)	170.1	2
Static Water Levels	--	

TABLE 2

SUMMARY OF ANALYTICAL DETECTIONS
FOR THE
DUNLOP TIRE CORPORATION
LONG TERM MONITORING
NYSDEC NO'S 915018 A, B, C
YEAR 1 - ROUND 1 GROUNDWATER SAMPLES
SPRING 1995

Sample ID			DTC-OMW-A6	DTC-OMW-A4	DTC-OMW-B3	DTC-OMW-B4	DTC-OMW-C1	DTC-OMW-C5	DTC-OMW-C7
Monitor Type			Upgradient	Downgradient	Downgradient	Downgradient	Upgradient	Downgradient	Downgradient
Date Sampled			28-Apr-95	28-Apr-95	16-May-95	28-Apr-95	28-Apr-95	28-Apr-95	16-May-95
Date Extracted			08-May-95	02-May-95	24-May-95	02-May-95	08-May-95	08-May-95	24-May-95
Date Analyzed			09-May-95	02-May-95	24-May-95	02-May-95	09-May-95	09-May-95	24-May-95
Dilution		ARARs	1	1	1	1	1	1	1
Units		(µG/L)	µG/L	µG/L	µG/L	µG/L	µG/L	µG/L	µG/L
Parameters	Type	1							
Acenaphthene	SVOC	20			3 J				
Dibenzofuran	SVOC	50			1 J				
Fluorene	SVOC	50			2 J				
Phenanthrene	SVOC	50			3 J				
Anthracene	SVOC	50			0.7 J				
Diethylphthalate	SVOC	50					0.3 J	0.3 J	0.4 J
Bis (2-Ethylhexyl)phthalate	SVOC	N/A							11 B
Total Phenol	SVOC	1	6		5			5	
Aluminum	MET	N/A	253	163 B	160 B	152 B	754	183 B	173 B
Antimony	MET	3	7 B	6.4 B	5.8 B	6.8 B	5.7 B	6.2 B	7.9 B
Arsenic	MET	25			2.2 B				
Barium	MET	1000	67.1 B	7.2 B	204	11 B	14.5 B	13.8 B	10.3 B
Cadmium	MET	10							1.2 B
Calcium	MET	N/A	47600 J	241000 J	184000 J	83900 J	113000 J	94600 J	82800 J
Chromium	MET	50	2.3 B	4.1 B	1.6 B		6.6 B	2 B	1.6 B
Cobalt	MET	N/A	2.4 B	5.9 B	7.5 B	2.5 B	3 B	2.4 B	2.2 B
Copper	MET	200	10.4 B	9.9 B			2.6 B	3 B	3.7 B
Iron	MET	300	653 J	185 J	6250 J	128 J	927 J	147 J	141 J
Lead	MET	15	3.9		3.1			1.2 B	
Magnesium	MET	35000	94100	1070000	91900	328000	464000	242000	363000
Manganese	MET	300	116	389	506	58.1	218	93.9	45.9
Nickel	MET	N/A	44.2	46.3	91.3	9 B	10.8 B	16.4 B	11.3 B
Potassium	MET	N/A	4920 BJ	22400 J	5980 J	8800 J	9880 J	7780 J	9450 J
Selenium	MET	10			3.8 B				
Silver	MET	50	4 B	3.9 B	3.7 B	3.9 B	3.8 B	3.9 B	3.8 B
Sodium	MET	20000	28800	204000	43900	134000	127000	71900	114000
Vanadium	MET	N/A	3.9 B	3.8 B	3 B	3.4 B	2.4 B	2.3 B	3.3 B
Zinc	MET	300	82.7	62.7	45.8	43.7	55.1	52	40.1

NOTES:

1-NYSDEC Ambient Water Quality Standards and Guidance Valves. Oct. 1993.

2 - N/A - Not applicable, NYSDEC has not set a Groundwater Standard or Guidance Value for this substance.

3 - All compounds were analyzed for. A blank indicates a non-detect.

4 - [shaded] - Exceeds NYSDEC Ambient Water Quality Standard or Guidance Value.

Organic qualifiers

J - Indicates that the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value which is less than the Contract Required Detection Limit but is greater than zero.

B - Indicates that the compound was detected in the associated method blank, but the sample concentration is greater than 10 times the concentration of the associated blank. Therefore the data is reported.

Inorganic Qualifiers

J - Indicates an estimated concentration because quality control criteria was not met.

B - Indicates the sample result is less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

MADE BY DS DATE 8-3-95
CHKD BY SW DATE 8-3-95

APPENDIX A

WELL PURGING LOGS

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: April 27 1995 Purge START PURGE: 1455
April 28 1995 Sample END PURGE: 1525

WELL NO.: OMW-A4

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	25.60	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
		4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	P 6.76 / S 20.21	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	3.07	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 9.27 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3	6	9.5		Sample					
pH	7.6	7.4	7.1	7.1		7.2					
SPEC. COND. (µmhos)	10200	9800	10100	10800		10400					
TURBIDITY (NTU)	57	>200	>200	160		8					
TEMPERATURE (°C)	15	12	11	11		12					
PID (ppm)	ND					ND					
			DRY	DRY		Time 1225					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve
NO "J" Plug
Lock was Seized, Cut off & Replaced

Clear to Sl. Turbid, No odor

Sample - Clear to Sl. Turbid
NO Filtered metals
QC - None

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: April 27 1995 (Purge) START PURGE: 1615
April 28 1995 (Sample) END PURGE: 1640

WELL NO.: OMW-A6

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	23.50	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
	P S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	7.85/18.88	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.56	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 7.68 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2.5	5	7.7		Sample					
pH	7.4	7.4	7.4	7.4		7.5					
SPEC. COND. (µmhos)	1340	1180	1060	1130		1070					
TURBIDITY (NTU)	10	>200	>200	>200		7					
TEMPERATURE (°C)	18	16	15	11		9					
PID (ppm)	0.3					ND					
			DRY	DRY		Time 1430					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve
Flush mount intact. J-Plug & Lock INTACT

Sample - Clear to SL. Turbid
No Filtered metals
QC - None

Clear to turbid, no odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: April 27 1995 (purge) START PURGE: 1325
April 28 1995 (sample) END PURGE: 1340

WELL NO.: OMW-B3

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	17.06	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
		4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	P 4.59 / S 13.21	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.03	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 6.09 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2.5	4	6.5		Sample					
pH	6.6	6.7	6.7	6.6		6.9					
SPEC. COND. (µmhos)	1600	1500	1400	1000		1700					
TURBIDITY (NTU)	4	80	80	140		33					
TEMPERATURE (°C)	18	13	13	10		13					
PID (ppm)	ND					ND					
		DRY	DRY	DRY		Time 1050					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve
No Lock or J plug. Well continues to go DRY during sampling
New lock installed.

Sample - Clear to turbid
NO FILTERED METALS

Oil Sheen on water SL. Turbid, NO odor

QC - MS/MSD (Sch A), DUP (Phenols)

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: May 15 1995 (Purge) START PURGE: 1440
May 16 1995 (Sample) END PURGE: 1450

WELL NO.: OMW-B3

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	17.06	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
	P / S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	7.31 / 13.92	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	1.59	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 4.77 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	1.5	3		Sample						
pH	6.53	6.47	6.50		6.76						
SPEC. COND. (µmhos)	1400	1500	1400		1400						
TURBIDITY (NTU)	13	32	78		54						
TEMPERATURE (°C)	16.3	12.7	12.3		15.7						
PID (ppm)	ND				ND						
			DRY		Time 1350						

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve

Sample - V. SL Turbid No odor
Metals Collected FIRST Followed By the organic FRACTION IN ORDER TO OBTAIN A Clear sample
QC-None 2ND RESample - Phenols

Clear w/moderate S = odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: April 27, 1995 (Purge) START PURGE: 1405
April 28 1995 (Sample) END PURGE: 1430

WELL NO.: OMW-B4

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	22.40	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
	P S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	6.93/18.60	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.52	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 7.56 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2.5	5	7.6		Sample					
pH	7.4	7.5	7.2	7.2		7.4					
SPEC. COND. (µmhos)	2400	3000	3100	3400		3500					
TURBIDITY (NTU)	7	100	100	32		8					
TEMPERATURE (°C)	18	12	11	12		11					
PID (ppm)	ND					ND					
			DRY	DRY		Time 1345					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve Lock was seized, cut off & replaced. No "J" plug. Well continues to Go dry during sampling

Sample - clear
No Filtered metals
QC MS/MSD (CN) Dup (phenols)

Clear to SL. turbid No odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: april 28 1995 (purge) START PURGE: 0935
april 28 1995 (sample) END PURGE: 1000

WELL NO.: OMW-C1

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	19.62	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
	P / S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	2.94 / DNT	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.74	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 8.22 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3	6	8.5		Sample					
pH	7.4	7.4	7.4	7.4		7.6					
SPEC. COND. (µmhos)	4700	4900	4100	4400		4000					
TURBIDITY (NTU)	4.5	>200	>200	>200		26					
TEMPERATURE (°C)	10	9	10	9		7					
PID (ppm)	ND					ND					
			DRY	DRY		Time 1645					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve
Well continues to go DRY during sampling
NO Lock, J-PLUG INTACT. New lock installed.
Sample - Clear to V.Sl. turbid
NO FILTERED METALS
Q.C. NONE
Clear to turbid NO odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: April 27 1995 (purge) START PURGE: 1710
April 28 1995 (Sample) END PURGE: 1730

WELL NO.: OMW-C5

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	26.00	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
	P S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	7.33/23.16	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	3.04	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 9.12 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3	6	9.2		Sample					
pH	7.4	7.4	7.3	7.2		7.5					
SPEC. COND. (µmhos)	2000	2000	2100	2100		2000					
TURBIDITY (NTU)	5	120	>200	>200		7					
TEMPERATURE (°C)	7	6	5	6		9					
PID (ppm)	ND					ND					
			DRY	DRY		Time 1515					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve
Lock Seized - Cut off & Replaced
J Plug Intact

Sample - Clear to V. Sl. Turbid
NO Filtered metals
QC - None

Clear to Turbid NO odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: april 27 1995 (Purge) START PURGE: 1750
april 28 1995 (Sample) END PURGE: 1810

WELL NO.: OMW-C7

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	23.40	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
	P S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	5.15/18.17	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.98	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 8.94 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3	5	6		Sample					
pH	7.6	7.6	7.6	7.6		7.6					
SPEC. COND. (µmhos)	3100	3100	3500	3400		3500					
TURBIDITY (NTU)	10	>200	>200	>200		6					
TEMPERATURE (°C)	11	9	9	10		9					
PID (ppm)						ND					
			DRY	DRY		Time 1606					

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve
Lock Seized, cut off & Replaced

Sample - clear
No Filtered metals
QC None

Clear to turbid No odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: Dunlop Long Term Monitoring
PROJECT NO.: 35246.07 Year 1 - Round 1
STAFF: D. Sheppard
DATE: 5-15-95 (purge) START PURGE: 1515
5-16-95 (sample) END PURGE: 1525

WELL NO.: OMW-C7

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	23.40	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2"	3"	0.38
		4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	18.17 P / NT S	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	0.85	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 2.55 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	1.5		Sample							
pH	7.34	7.37		7.28							
SPEC. COND. (µmhos)	3600	3100		3600							
TURBIDITY (NTU)	5.1	19		23							
TEMPERATURE (°C)	19	14.1		15.3							
PID (ppm)	ND			ND							
		DRY		Time 1415							

COMMENTS: Well purged with New Dedicated HDPE Tubing & Foot Valve

Sample - Clear NO odor
QC - NONE. 2ND Resample FOR BNA & Phenol

Clear NO odor

APPENDIX B

ANALYTICAL DATA ASSESSMENT REPORT

ANALYTICAL DATA ASSESSMENT REPORT

FOR

DUNLOP TIRE CORPORATION

CLOSURE OF INACTIVE WASTE SITES

NYSDEC NOs 915018 A, B, C

LONG-TERM GROUNDWATER MONITORING PROGRAM

YEAR 1, ROUND 1 - SPRING 1995

Prepared by:

URS CONSULTANTS, INC.

JULY 1995

INTRODUCTION: This analytical data assessment report was prepared by URS Consultants, Inc. (URS), concerning the usability of analytical data produced by IEA, Inc., subcontractor to URS, as part of the Dunlop Tire Corporation Long-Term Monitoring Plan--Closure of Inactive Waste Sites (NYSDEC No's 915018 A, B, C). Seven groundwater monitoring wells (DTC-OMW-A4, OMW-A6, OMW-B3, OMW-B4, OMW-C1, OMW-C5 and OMW-C7) were sampled for Target Compound List (TCL) volatile organic compounds (VOC), TCL semivolatile organic compounds (SVOC), metals (plus cyanide), and total phenols (Table B-1).

All analyses performed by IEA were reviewed for compliance with the methods approved by the NYSDEC Analytical Services Protocol, 9/89, Revision 12/91. URS audited the data deliverable packages for completeness, holding times, laboratory and field quality control (QC), instrument detection limits, instrument calibration, and overall conformance with method and laboratory protocols. Data validation and determination of usability were performed following the general guidelines in USEPA SOP No. HW-6 Revision #8 CLP Organic Data Review, January 1992 and USEPA SOP HW-2 Evaluation of Metals Data for the Contract Laboratory Program, Revision #11, January 1992. Two laboratory reports (3095-0529 and 3095-0611) were submitted to URS from IEA. Laboratory report 3095 - 0529 contains the analytical data from the initial

samples, (April 27 and 28, 1995) and report 3095-0611 contains the analytical data from the resamples (May 15 and 16, 1995). Both laboratory reports are found in Appendix C, Volume 2 of 2.

CATEGORIES: The following table summarizes our assessment of data usability on a sample-by-sample and fraction-by-fraction basis. In evaluating these data, we have established four categories which are defined as follows.

Category 1a - Fully Usable Data - Fully usable, despite possible minor deviations from ASP criteria.

Category 1b - Data Usable But Qualified as Estimated - Usable with caution; cumulative deviations from ASP criteria are greater than Category 1a, although not considered so significant as to jeopardize the chemical representativeness of the sample results.

Category 2a - Rejected Fraction(s)/Compound(s) Due to Holding Time Violations - Did not comply with ASP holding time.

Category 2b - Rejected Fraction(s)/Compounds(s) Due to Various ASP Deviations - In a sample fraction, some compounds may be usable while other compounds may be rejected, or the whole sample fraction (i.e., metals, VOCs, etc.) may be rejected due to various deviations from ASP.

ASSESSMENT SUMMARY - Based on the results of the data validation, analytical results for volatile organic compounds, semivolatile organic compounds, cyanide and phenols were assigned to Category 1a. The analytical results for these compounds are fully usable. Metals data were assigned Category 1a and 1b. This indicates that while most of the analytes within this fraction are fully usable (1a), others are usable with caution (1b) due to the presence of some estimated values. A summary of detections is presented on Table B-2.

Organic Compounds

It should be noted that acetone and phthalate esters were detected in the method blank as well as in some of the samples. In accordance with the referenced guidance documents, if the concentration of a compound (acetone or phthalates) in a sample is less than the contract-required quantitation limit (CRQL) and less than ten times the concentration of the compound in the associated QC blanks, then the compound concentration is negated and qualified as non-detect at the CRQL. If the concentration of a compound in a sample is greater than the CRQL, but still less than the concentration of the associated QC blanks, then the compound concentration is negated and qualifies as non-detect at the sample result level.

Acetone was detected in two samples at concentrations greater than the CRQL and less than the associated QC blanks. The detections were therefore negated, making the reported values non-detects at the sample result level. Acetone is a common laboratory contaminant. It is an organic solvent used for the extraction of organic samples as well as for decontamination of laboratory glassware.

The phthalate esters di-n-butylphthalate and butylbenzylphthalate were detected in all seven samples at concentrations less than the CRQL and less than the referenced guidelines. The detections were therefore negated, making made the reported values non-detects at the CRQL. Phthalate esters also are common laboratory/field contaminants found in plastic-ware. The phthalate esters may have originated from the polyethylene construction of the bailer used to collect the samples, or the latex sampling/lab gloves.

An additional phthalate ester, bis(2-ethylhexyl)phthalate, was detected in OMW-C7 at a concentration that exceeded the referenced guidelines. It was therefore reported as a detection.

Inorganic Analytes

Analytical results for metals showed calcium, iron, and potassium detected at concentrations $\geq$ 10 times the instrument detection limit (IDL) for all seven samples. It was therefore necessary to perform serial dilutions. However, the results of the serial dilution reanalysis for calcium, iron, and potassium did not meet the validation guideline criteria because the relative percent difference was greater than 10% but less than 100% of the original sample. The results for these analytes are therefore reported as estimated.

The Laboratory Reports identified above are in compliance with the terms and conditions of the laboratory subcontract agreement. Release of the data for this investigation has been authorized by the Project QA/QC Officer and the Project Manager by the following signatures.

Robert C. Najjar, Ph.D.
Project QA/QC Officer

Robert E. Murphy, P.E.
Project Manager

TABLE B-1

DUNLOP TIRE CORPORATION
LONG-TERM MONITORING PLAN
INACTIVE WASTE SITES 91508 A, B AND C

ANALYTICAL SCHEDULE A

Schedule A (Superfund Deliverable Data Package)

Parameter	Method Number	Reference
TCL Volatiles	91-1	1
TCL Semivolatiles	91-2	1
*TAL Metals (24)		
Aluminum	200.7 CLP-M	
Antimony	200.7 CLP-M	
Arsenic	206.2 CLP-M	
Barium	200.7 CLP-M	
Beryllium	200.7 CLP-M	
Cadmium	200.7 CLP-M	
Calcium	200.7 CLP-M	
Chromium	200.7 CLP-M	
Cobalt	200.7 CLP-M	
Copper	200.7 CLP-M	
Iron	200.7 CLP-M	
Lead	239.2 CLP-M	
Magnesium	200.7 CLP-M	
Manganese	200.7 CLP-M	
Mercury	245.1 CLP-M & 245.5 CLP-M	
Nickel	200.7 CLP-M	
Potassium	200.7 CLP-M	
Selenium	270.2 CLP-M	
Silver	200.7 CLP-M	
Sodium	200.7 CLP-M	
Thallium	279.2 CLP-M	
Vanadium	200.7 CLP-M	
Zinc	200.7 CLP-M	
Cyanide	335.2 CLP-M	
Total Phenols	9065	1
pH (Field)	150.2	1
Specific Conductance (Field)	150.2	1
Temperature (Field)	170.1	2
Static Water Levels	--	

TABLE B-2

SUMMARY OF ANALYTICAL DETECTIONS
FOR THE
DUNLOP TIRE CORPORATION
LONG TERM MONITORING
NYSDEC NO'S 915018 A, B, C
YEAR 1 - ROUND 1 GROUNDWATER SAMPLES
SPRING 1995

Sample ID		DTC-OMW-A6	DTC-OMW-A4	DTC-OMW-B3	DTC-OMW-B4	DTC-OMW-C1	DTC-OMW-C5	DTC-OMW-C7
Monitor Type		Upgradient	Downgradient	Downgradient	Downgradient	Upgradient	Downgradient	Downgradient
Date Sampled		28-Apr-95	28-Apr-95	16-May-95	28-Apr-95	28-Apr-95	28-Apr-95	16-May-95
Date Extracted		08-May-95	02-May-95	24-May-95	02-May-95	08-May-95	08-May-95	24-May-95
Date Analyzed		09-May-95	02-May-95	24-May-95	02-May-95	09-May-95	09-May-95	24-May-95
Dilution		1	1	1	1	1	1	1
Units		µG/L	µG/L	µG/L	µG/L	µG/L	µG/L	µG/L
Parameters	Type							
Acenaphthene	SVOC			3 J				
Dibenzofuran	SVOC			1 J				
Fluorene	SVOC			2 J				
Phenanthrene	SVOC			3 J				
Anthracene	SVOC			0.7 J				
Diethylphthalate	SVOC					0.3 J	0.3 J	0.4 J
Bis (2-Ethylhexyl)phthalate	SVOC							11 B
Total Phenol	SVOC	8		5			5	
Aluminum	MET	253	163 B	160 B	152 B	754	183 B	173 B
Antimony	MET	7 B	6.4 B	5.8 B	6.8 B	5.7 B	6.2 B	7.9 B
Arsenic	MET			2.2 B				
Barium	MET	67.1 B	7.2 B	204	11 B	14.5 B	13.8 B	10.3 B
Cadmium	MET							1.2 B
Calcium	MET	47600 J	241000 J	184000 J	83900 J	113000 J	94600 J	82800 J
Chromium	MET	2.3 B	4.1 B	1.6 B		6.6 B	2 B	1.6 B
Cobalt	MET	2.4 B	5.9 B	7.5 B	2.5 B	3 B	2.4 B	2.2 B
Copper	MET	10.4 B	9.9 B			2.6 B	3 B	3.7 B
Iron	MET	653 J	185 J	6250 J	128 J	927 J	147 J	141 J
Lead	MET	3.9		3.1			1.2 B	
Magnesium	MET	94100	1070000	91900	326000	464000	242000	363000
Manganese	MET	116	389	506	58.1	218	93.9	45.9
Nickel	MET	44.2	46.3	91.3	9 B	10.8 B	16.4 B	11.3 B
Potassium	MET	4920 BJ	22400 J	5980 J	8800 J	9880 J	7780 J	9450 J
Selenium	MET			3.8 B				
Silver	MET	4 B	3.9 B	3.7 B	3.9 B	3.8 B	3.9 B	3.8 B
Sodium	MET	28800	204000	43900	134000	127000	71900	114000
Vanadium	MET	3.9 B	3.8 B	3 B	3.4 B	2.4 B	2.3 B	3.3 B
Zinc	MET	82.7	62.7	45.8	43.7	55.1	52	40.1

NOTES:

All compounds were analyzed for. A blank indicates a non-detect.

Organic qualifiers

J - Indicates that the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value which is less than the Contract Required Detection Limit but is greater than zero.

B - Indicates that the compound was detected in the associated method blank, but the sample concentration is greater than 10 times the concentration of the associated blank. Therefore the data is reported.

Inorganic Qualifiers

J - Indicates an estimated concentration because quality control criteria was not met.

B - Indicates the sample result is less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

MADE BY DS DATE 8-3-95
CHKD BY SW DATE 8-7-95

TABLE 2

SUMMARY OF ANALYTICAL DETECTIONS
FOR THE
DUNLOP TIRE CORPORATION
LONG TERM MONITORING
NYSDEC NO'S 915018 A, B, C
YEAR 1 - ROUND 1 GROUNDWATER SAMPLES
SPRING 1995

Sample ID			DTC-OMW-A6	DTC-OMW-A4	DTC-OMW-B3	DTC-OMW-B4	DTC-OMW-C1	DTC-OMW-C5	DTC-OMW-C7
Monitor Type			Upgradient	Downgradient	Downgradient	Downgradient	Upgradient	Downgradient	Downgradient
Date Sampled			28-Apr-95	28-Apr-95	16-May-95	28-Apr-95	28-Apr-95	28-Apr-95	16-May-95
Date Extracted			08-May-95	02-May-95	24-May-95	02-May-95	08-May-95	08-May-95	24-May-95
Date Analyzed			09-May-95	02-May-95	24-May-95	02-May-95	09-May-95	09-May-95	24-May-95
Dilution		ARARs	1	1	1	1	1	1	1
Units		(µG/L)	µG/L	µG/L	µG/L	µG/L	µG/L	µG/L	µG/L
Parameters	Type	1							
Acenaphthene	SVOC	20			3 J				
Dibenzofuran	SVOC	50			1 J				
Fluorene	SVOC	50			2 J				
Phenanthrene	SVOC	50			3 J				
Anthracene	SVOC	50			0.7 J				
Diethylphthalate	SVOC	50					0.3 J	0.3 J	0.4 J
Bis (2-Ethylhexyl)phthalate	SVOC	N/A							11 B
Total Phenol	SVOC	1	8		5			5	
Aluminum	MET	N/A	253	163 B	160 B	152 B	754	183 B	173 B
Antimony	MET	3	7 B	6.4 B	5.8 B	6.8 B	5.7 B	6.2 B	7.9 B
Arsenic	MET	25			2.2 B				
Barium	MET	1000	67.1 B	7.2 B	204	11 B	14.5 B	13.8 B	10.3 B
Cadmium	MET	10							1.2 B
Calcium	MET	N/A	47600 J	241000 J	184000 J	83900 J	113000 J	94600 J	82800 J
Chromium	MET	50	2.3 B	4.1 B	1.6 B		6.6 B	2 B	1.6 B
Cobalt	MET	N/A	2.4 B	5.9 B	7.5 B	2.5 B	3 B	2.4 B	2.2 B
Copper	MET	200	10.4 B	9.9 B			2.6 B	3 B	3.7 B
Iron	MET	300	653 J	185 J	6250 J	128 J	927 J	147 J	141 J
Lead	MET	15	3.9		3.1			1.2 B	
Magnesium	MET	35000	94100	1070000	91900	328000	464000	242000	363000
Manganese	MET	300	116	369	506	58.1	218	93.9	45.9
Nickel	MET	N/A	44.2	46.3	91.3	9 B	10.8 B	16.4 B	11.3 B
Potassium	MET	N/A	4920 BJ	22400 J	5980 J	8800 J	9880 J	7780 J	9450 J
Selenium	MET	10			3.8 B				
Silver	MET	50	4 B	3.9 B	3.7 B	3.9 B	3.8 B	3.9 B	3.8 B
Sodium	MET	20000	28800	204000	43900	134000	127000	71900	114000
Vanadium	MET	N/A	3.9 B	3.8 B	3 B	3.4 B	2.4 B	2.3 B	3.3 B
Zinc	MET	300	82.7	62.7	45.8	43.7	55.1	52	40.1

NOTES:

1-NYSDEC Ambient Water Quality Standards and Guidance Valves. Oct. 1993.

2 - N/A - Not applicable, NYSDEC has not set a Groundwater Standard or Guidance Value for this substance.

3 - All compounds were analyzed for. A blank indicates a non-detect.

4 - [shaded] - Exceeds NYSDEC Ambient Water Quality Standard or Guidance Value.

Organic qualifiers

J - Indicates that the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value which is less than the Contract Required Detection Limit but is greater than zero.

B - Indicates that the compound was detected in the associated method blank, but the sample concentration is greater than 10 times the concentration of the associated blank. Therefore the data is reported.

Inorganic Qualifiers

J - Indicates an estimated concentration because quality control criteria was not met.

B - Indicates the sample result is less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

MADE BY DS DATE 8-3-95
CHKD BY SAJ DATE 8-3-95

TABLE 2

SUMMARY OF ANALYTICAL DETECTIONS
FOR THE
DUNLOP TIRE CORPORATION
LONG TERM MONITORING
NYSDEC NO'S 915018 A, B, C
YEAR 1 - ROUND 2 GROUNDWATER SAMPLES
FALL 1995

Sample ID			DTC-OMW-A6	DTC-OMW-A4	DTC-OMW-B3	DTC-OMW-B4	DTC-OMW-C1	DTC-OMW-C5	DTC-OMW-C7
Monitor Type			Upgradient	Downgradient	Downgradient	Downgradient	Upgradient	Downgradient	Downgradient
Date Sampled			10/04/95	10/04/95	10/04/95	10/04/95	10/04/95	10/04/95	10/04/95
Date Extracted			10/09/95	10/09/95	10/09/95	10/09/95	10/09/95	10/09/95	10/09/95
Date Analyzed			10/24/95	10/24/95	10/24/95	10/25/95	10/27/95	10/24/95	10/24/95
Dilution		ARARs	1	1	1	1	1	1	1
Units		(µG/L)	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Parameters	Type								
Acenaphthene	SVOC	20			2 J				
Dibenzofuran	SVOC	50			0.6 J				
Fluorene	SVOC	50			1 J				
Phenanthrene	SVOC	50			0.3 J				
Anthracene	SVOC	50			0.2 J				
Diethylphthalate	SVOC	50	0.4 J	0.5 J	0.3 J	0.3 J	0.4 J	0.4 J	0.4 J
Total Phenol	SVOC	1	12	19	17	8	15	16	18
Aluminum	MET	N/A	129 B	86.6 B	161 B	153 B	170 B	110 B	173 B
Antimony	MET	3			6.6 B				3.8 B
Arsenic	MET	25			8.1 B				
Barium	MET	1000	86.7 B	7.2 B	333	13.2 B	11.1 B	13.6 B	13.2 B
Calcium	MET	N/A	54100	327000	188000	106000	125000	104000	107000
Chromium	MET	50	1.4 B		5 B	1.1 B	2.1 B	2.8 B	1.3 B
Cobalt	MET	N/A		5.1 B	3.8 B			1.5 B	2 B
Copper	MET	200	23.6 B	2.7 B				6.1 B	
Iron	MET	300	67.7 B	262	34500	110	112	163	96.2 B
Lead	MET	15	4.4 J		15.3 J			60.8 J	
Magnesium	MET	35000	110000	1230000	132000	403000	511000	275000	443000
Manganese	MET	300	86	414	494	58.9	19.7	242	205
Nickel	MET	N/A	14.8 B	27.8 B	10 B	5 B	5.4 B	14 B	10.9 B
Potassium	MET	N/A	5670 J	32100 J	9210 J	12800 J	13100 J	9610 J	13400 J
Selenium	MET	10			4.3 B				
Sodium	MET	20000	33700	253000	59200	165000	149000	83900	143000
Vanadium	MET	N/A			1.3 B				
Zinc	MET	300	92.7 J	35.8 J	102 J	60.6 J	52.9 J	62.6 J	41.9 J

NOTES:

1-NYSDEC Ambient Water Quality Standards and Guidance Valves. Oct. 1993.

2 - N/A - Not applicable, NYSDEC has not set a Groundwater Standard or Guidance Value for this substance.

3 - All compounds were analyzed for. A blank indicates a non-detect.

4 - [shaded] - Exceeds NYSDEC Ambient Water Quality Standard or Guidance Value.

Organic qualifiers

J - Indicates that the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value which is less than the Contract Required Detection Limit but is greater than zero.

Inorganic Qualifiers

J - Indicates an estimated concentration because quality control criteria was not met.

B - Indicates the sample result is less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

MADE BY SN DATE 12/4/95
CHKD BY [illegible] DATE 12-4-95

J:\35246\OPRO\GW1005.WB1/sn
12/04/9511:18

GROUNDWATER MONITORING REPORT

FOR

LONG-TERM MONITORING PROGRAM

Closure of Inactive Waste Sites
NYSDEC NOs 915018 A, B, C

Year 1, Round 2 - Fall 1995

Volume 1 of 2 - Report and Appendices A & B

prepared for:

DUNLOP TIRE CORPORATION
Tonawanda, New York

prepared by:

URS CONSULTANTS, INC.
282 Delaware Avenue
Buffalo, New York 14202

G2118

December 1995

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS, INC.
282 DELAWARE AVENUE
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NEW ORLEANS
SAN FRANCISCO
SAN MATEO
SEATTLE
VIRGINIA BEACH
WASHINGTON, D.C.

December 14, 1995

Mr. Glenn May
New York State Department of Environmental Conservation
Division of Solid/Hazardous Waste
270 Michigan Avenue
Buffalo, New York 14203-2999

RE: DUNLOP TIRE CORPORATION
CLOSURE OF INACTIVE WASTE SITE NOS. 915018 A, B, C

Dear Mr. May:

On behalf of Dunlop Tire Corporation, we are forwarding the enclosed Groundwater Monitoring Report, Volume 1 of 2, dated November 1995. The report presents the results of the second round of year 1 sampling and includes as Appendix B an Analytical Data Assessment Report. Volume 2 of 2 contains only the raw analytical data (Appendix C) and was not forwarded because of its large volume. It is on file with both Dunlop and URS should you wish to review it.

Very truly yours,

URS CONSULTANTS, INC.

Robert E. Murphy, P.E.
Project Manager

Enc.

cc: Daniel Pyanowski - Dunlop Tire Corporation
File: 35246.07, C-1

J:\35246.07\wp\12-14-95.gm

GROUNDWATER MONITORING REPORT FOR THE LONG-TERM MONITORING PROGRAM CLOSURE OF INACTIVE WASTE SITES NYSDEC SITE NOs. 915018 A, B AND C

YEAR 1 - ROUND 2

FALL 1995

VOLUME 1 OF 2 - REPORT AND APPENDICES A & B

Prepared for:

DUNLOP TIRE CORPORATION

TONAWANDA, NEW YORK

DECEMBER 1995

Prepared by:

URS CONSULTANTS, INC.

282 DELAWARE AVENUE

BUFFALO, NEW YORK 14202

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1.0 INTRODUCTION

This report has been prepared for Dunlop Tire Corporation in accordance with the NYSDEC- approved Long-Term Monitoring Plan, Closure of Inactive Waste Sites NYSDEC Nos. 915018 A,B,C, URS, July 1994 (LTMP). It presents the results of the second round of sampling required for year 1 of the LTMP.

As discussed in the approved plan, the purpose of year 1 sampling is to provide a comprehensive sample population for selection of site-specific parameters to be monitored in future years. An additional report will be issued to evaluate the results of both rounds and to finalize the long-term analytical parameters.

2.0 FIELD PROCEDURES

Field procedures were conducted in accordance with the Field Sampling Plan presented in Appendix C of the LTMP. Well Purging Logs are included in Appendix A. Well locations are shown on Figure 1.

Prior to purging, the integrity of each well was inspected. All wells were observed to be capped and locked, indicating that they had not been tampered with. The seven monitoring wells were purged on October 3, 1995, and sampled on October 4, 1995.

3.0 ANALYTICAL RESULTS

As required by the Quality Assurance Project Plan (QAPP) presented in Appendix B of the LTMP, all chemical analysis was performed in accordance with the NYSDEC Analytical Services Protocol (ASP) September 1989, 12/91 Revisions, which meets or exceeds USEPA Contract Laboratory Program (CLP) protocol. All analytical procedures were performed in accordance with IEA Companies' Standard Operating Procedures (SOP) manual. Also, the laboratory-generated data was assessed independently by URS in accordance with the QAPP. URS' Analytical Data Assessment Report is presented in Appendix B.

The seven wells sampled during Round 2 were analyzed for parameters presented on Table 1. The analytical results are presented below on a well by well basis and a summary of detected analytes is presented on Table 2.

Areas A and B

OMW-A6 (Upgradient)

OMW-A6 is an upgradient well and as such will be used to indicate if downgradient detections might be attributed to onsite sources. There were no VOCs detected in this sample. The only SVOCs detected were phenols, which were present at a concentration slightly above its groundwater Applicable or Relevant and Appropriate Requirements (ARAR), and diethylphthalate (a common laboratory contaminant as discussed in Appendix B), at a concentration well below its groundwater ARAR.

Of the 24 metals on the analytical schedule, 13 were detected. Chromium and lead, LTMP identified metals of concern, were detected at concentrations below their respective groundwater ARARs. Consistent with the pre-closure 1991 analytical results, several other metals of low environmental impact were detected at concentrations greater than their respective groundwater ARAR values. These were magnesium and sodium. The detected concentrations of the remaining metals were not significant.

OMW-A4 (Downgradient)

There were no VOCs detected in this sample. The only SVOCs detected were phenols, which were present at a concentration slightly higher than OMW-A6 and its groundwater ARAR, and diethylphthalate, at a concentration well below its groundwater ARAR.

Twelve of the 24 metals were detected. Calcium, cobalt, iron, magnesium, manganese, nickel, potassium and sodium were detected at concentrations greater than OMW-A6, however, none of theses metals were determined to be metals of concern as specified in the LTMP. The remaining metals were detected at levels below OMW-A6.

OMW-B3 (Downgradient)

There were no VOCs detected in this sample. Detected SVOCs include acenaphthene, dibenzofuran, fluorene, phenanthrene, anthracene and diethylphthalate. These compounds were detected at concentrations well below their respective groundwater ARAR's. Phenols were also detected at a concentration slightly higher than OMW-A6 and the respective groundwater ARAR.

Seventeen of the 24 metals were detected. Lead, a LTMP metal of concern, was detected at a concentration greater than OMW-A6, and slightly greater than its groundwater ARAR. Arsenic and chromium, also LTMP metals of concern, were detected at concentrations greater than OMW-A6, but well below their respective groundwater ARARs. Aluminum, barium, calcium, cobalt, iron, magnesium, manganese, potassium, selenium, sodium, vanadium and zinc were detected at concentrations greater than OMW-A6, however, none of these metals were determined to be metals of concern as specified in the LTMP. Antimony was detected at a concentration slightly above its ARAR, and was not detected in OMW-A6. The remaining metal, nickel, was detected at levels below OMW-A6.

OMW-B4 (Downgradient)

There were no VOCs detected in this sample. The only SVOCs detected were phenols, which were present at a concentration less than OMW-A6, and diethylphthalate, at a concentration well below its groundwater ARAR.

Eleven of the 24 metals were detected. Chromium, a metal of concern, was detected at a concentration less than OMW-A6. Aluminum, calcium, iron, magnesium, potassium and sodium were detected at concentrations greater than OMW-A6. None of these metals were determined to be metal of concern as specified in the LTMP. The remaining metals were detected at levels below OMW-A6.

Area C

OMW-C1 (Upgradient)

OMW-C1 is an upgradient well and as such will be used to indicate if downgradient detections might be attributed to onsite sources. There were no VOCs detected in this sample. The only SVOCs detected were phenols, which were present at a concentration slightly above the respective groundwater ARAR; and, diethylphthalate (a common laboratory contaminant as discussed in Appendix B), at a concentration well below its groundwater ARAR.

Eleven of the 24 metals were detected. Chromium, a metal of concern, was detected at a concentration below its groundwater ARAR. Consistent with the pre-closure, 1991 analytical results, magnesium and sodium, metals of low environmental impact, were detected above their respective groundwater ARAR values. The detected levels of the remaining metals were not significant.

OMW-C5 (Downgradient)

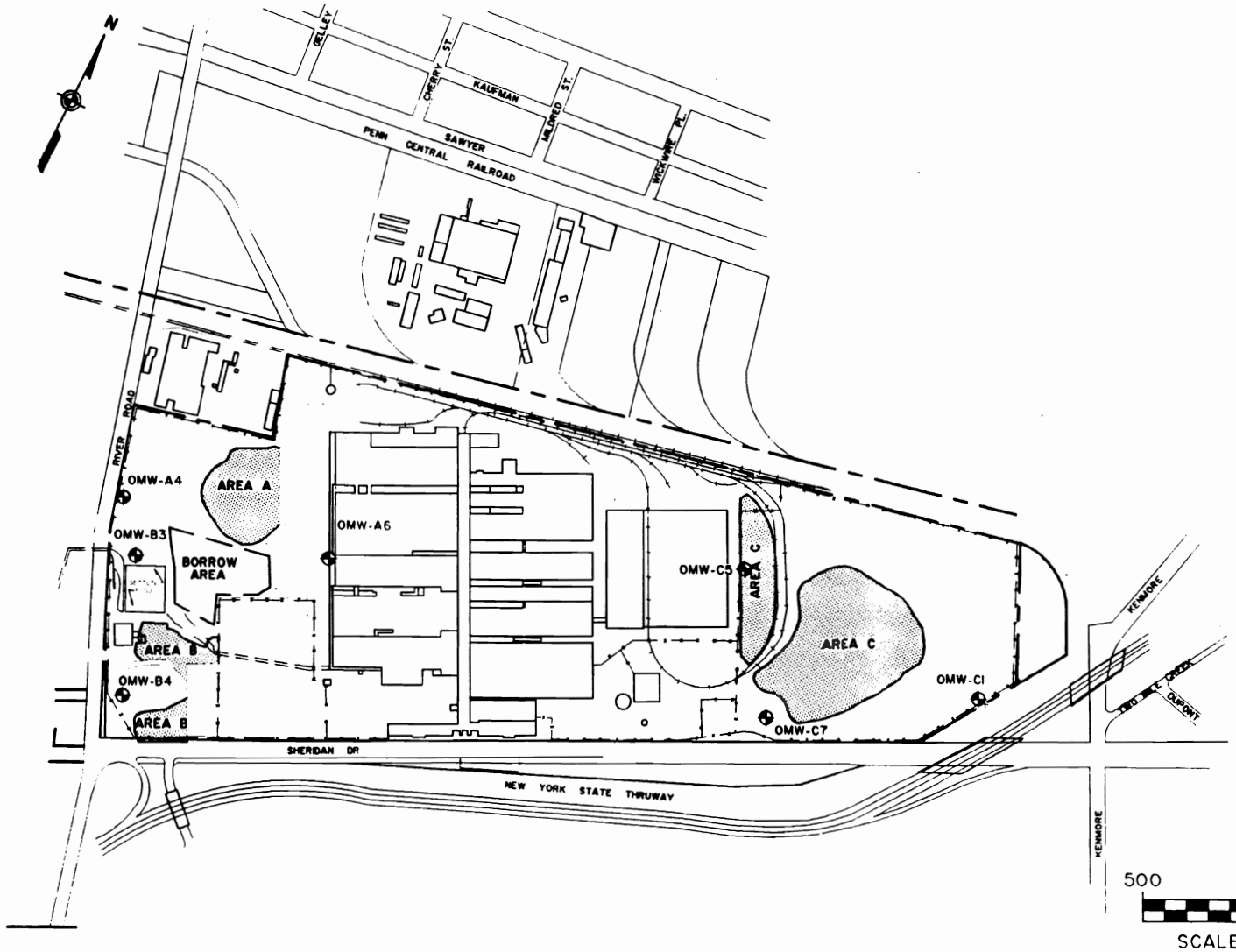
There were no VOCs detected in this sample. Two SVOCs were detected: phenols, which were present at a concentration slightly higher than OMW-C1 and the associated groundwater ARAR; and, diethylphthalate, at a concentration equal to OMW-C1.

Fourteen of the 24 metals were detected. Lead, a metal of concern, was detected at a concentration 4 times greater than its groundwater ARAR and was not detected in OMW-C1. Chromium, also a metal of concern, was detected at a concentration slightly greater than OMW-C1, but well below its groundwater ARAR. Barium, cobalt, copper, iron, manganese, nickel and zinc were detected at concentrations greater than OMW-C1, however, none of these metals were determined to be metals of concern as specified in the LTMP. The detected levels of the remaining metals were well below any established ARARs.

OMW-C7 (Downgradient)

There were no VOCs detected in this sample. Two SVOCs were detected: phenols, which were present at a concentration slightly higher than OMW-C1 and the associated groundwater ARAR; and, diethylphthalate, which was also present in OMW-C1 at the same concentration.

Thirteen of the 24 metals were detected. Chromium, a metal of concern, was detected at a concentration less than OMW-C1. Several other metals were detected including aluminum, barium, cobalt, manganese, nickel and potassium at concentrations greater than OMW-C1. None of these metals were determined to be metals of concern as specified in the LTMP. Antimony was detected at a concentration slightly above its ARAR and was not detected in OMW-C1. The detected levels of the remaining metals were well below any established ARARs.



NO	DATE	DESCRIPTION
2	7/11/94	ADDED OMW-A6
1	5/24/94	DELETED OMW-A5

SAMPLING LOCATION MAP

URS CONSULTANTS, INC.

FIGURE 1

J:\35246.07\CADD\ 1:500 8/1/95-4 ELB

CC-2763A

TABLE 1

DUNLOP TIRE CORPORATION
LONG-TERM MONITORING PLAN
INACTIVE WASTE SITES 91508 A, B AND C

ANALYTICAL SCHEDULE A

Schedule A (Superfund Deliverable Data Package)

Parameter	Method Number	Reference
TCL Volatiles	91-1	1
TCL Semivolatiles	91-2	1
*TAL Metals (24)		
Aluminum	200.7 CLP-M	
Antimony	200.7 CLP-M	
Arsenic	206.2 CLP-M	
Barium	200.7 CLP-M	
Beryllium	200.7 CLP-M	
Cadmium	200.7 CLP-M	
Calcium	200.7 CLP-M	
Chromium	200.7 CLP-M	
Cobalt	200.7 CLP-M	
Copper	200.7 CLP-M	
Iron	200.7 CLP-M	
Lead	239.2 CLP-M	
Magnesium	200.7 CLP-M	
Manganese	200.7 CLP-M	
Mercury	245.1 CLP-M & 245.5 CLP-M	
Nickel	200.7 CLP-M	
Potassium	200.7 CLP-M	
Selenium	270.2 CLP-M	
Silver	200.7 CLP-M	
Sodium	200.7 CLP-M	
Thallium	279.2 CLP-M	
Vanadium	200.7 CLP-M	
Zinc	200.7 CLP-M	
Cyanide	335.2 CLP-M	
Total Phenols	9065	1
pH (Field)	150.2	1
Specific Conductance (Field)	150.2	1
Temperature (Field)	170.1	2
Static Water Levels	--	

TABLE 2

SUMMARY OF ANALYTICAL DETECTIONS
FOR THE
DUNLOP TIRE CORPORATION
LONG TERM MONITORING
NYSDEC NO'S 915018 A, B, C
YEAR 1 - ROUND 2 GROUNDWATER SAMPLES
FALL 1995

Sample ID			DTC-OMW-A6	DTC-OMW-A4	DTC-OMW-B3	DTC-OMW-B4	DTC-OMW-C1	DTC-OMW-C5	DTC-OMW-C7
Monitor Type			Upgradient	Downgradient	Downgradient	Downgradient	Upgradient	Downgradient	Downgradient
Date Sampled			10/04/95	10/04/95	10/04/95	10/04/95	10/04/95	10/04/95	10/04/95
Date Extracted			10/09/95	10/09/95	10/09/95	10/09/95	10/09/95	10/09/95	10/09/95
Date Analyzed			10/24/95	10/24/95	10/24/95	10/25/95	10/27/95	10/24/95	10/24/95
Dilution		ARARs	1	1	1	1	1	1	1
Units		(µG/L)	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Parameters	Type								
Acenaphthene	SVOC	20			2 J				
Dibenzofuran	SVOC	50			0.6 J				
Fluorene	SVOC	50			1 J				
Phenanthrene	SVOC	50			0.3 J				
Anthracene	SVOC	50			0.2 J				
Diethylphthalate	SVOC	50	0.4 J	0.5 J	0.3 J	0.3 J	0.4 J	0.4 J	0.4 J
Total Phenol	SVOC	1	12	19	17	8	15	16	18
Aluminum	MET	N/A	129 B	86.6 B	161 B	153 B	170 B	110 B	173 B
Antimony	MET	3			6.6 B				3.8 B
Arsenic	MET	25			8.1 B				
Barium	MET	1000	86.7 B	7.2 B	333	13.2 B	11.1 B	13.6 B	13.2 B
Calcium	MET	N/A	54100	327000	188000	106000	125000	104000	107000
Chromium	MET	50	1.4 B		5 B	1.1 B	2.1 B	2.8 B	1.3 B
Cobalt	MET	N/A		5.1 B	3.8 B			1.5 B	2 B
Copper	MET	200	23.6 B	2.7 B				6.1 B	
Iron	MET	300	67.7 B	262	34500	110	112	163	96.2 B
Lead	MET	15	4.4 J		15.3 J			60.8 J	
Magnesium	MET	35000	110000	1230000	132000	403000	511000	275000	443000
Manganese	MET	300	86	414	494	58.9	19.7	242	205
Nickel	MET	N/A	14.8 B	27.8 B	10 B	5 B	5.4 B	14 B	10.9 B
Potassium	MET	N/A	5670 J	32100 J	9210 J	12800 J	13100 J	9610 J	13400 J
Selenium	MET	10			4.3 B				
Sodium	MET	20000	33700	253000	59200	165000	149000	83900	143000
Vanadium	MET	N/A			1.3 B				
Zinc	MET	300	92.7 J	35.8 J	102 J	60.6 J	52.9 J	62.6 J	41.9 J

NOTES:

1-NYSDEC Ambient Water Quality Standards and Guidance Valves. Oct. 1993.

2 - N/A - Not applicable, NYSDEC has not set a Groundwater Standard or Guidance Value for this substance.

3 - All compounds were analyzed for. A blank indicates a non-detect.

4 - [shaded] - Exceeds NYSDEC Ambient Water Quality Standard or Guidance Value.

Organic qualifiers

J - Indicates that the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value which is less than the Contract Required Detection Limit but is greater than zero.

Inorganic Qualifiers

J - Indicates an estimated concentration because quality control criteria was not met.

B - Indicates the sample result is less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

MADE BY SN DATE 12/4/95
CHKD BY [illegible] DATE 12-4-95

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12/04/9511:18

APPENDIX A

WELL PURGING LOGS

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING
PROJECT NO.: 35246.07 YEAR 1 ROUND 2
STAFF: D. SHEPPARD
DATE: OCTOBER 3, 1995 PURGE START PURGE: 1345
OCTOBER 4, 1995 SAMPLE END PURGE: 1355

WELL NO.: OMW-A4

1. TOTAL CASING AND SCREEN LENGTH (FT.): 25.60
2. CASING INTERNAL DIAMETER (IN.): 2
3. WATER LEVEL BELOW TOP OF CASING (FT.): P 10.68 / S 19.21
4. VOLUME OF WATER IN CASING (GAL.): 2.54
   #1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 7.62 GAL.

WELL ID.	VOL. (GAL./FT.)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2.5	5		SAMPLE						
pH	7.20	6.97	6.94		7.15						
SPEC. COND. (µmhos)	2680	2700	2690		4200						
TURBIDITY (NTU)	8	>100	>100		4.5						
TEMPERATURE (°C)	15.6	13.2	13.6		14.4						
DISSOLVED OXYGEN (mg/L)											
PID (ppm)	ND		DRY								

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA
Dryed 5 gallons
Clear to sl. turbid, no odor

SAMPLE DATA
TIME: 1050
Clear, no odor.

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING
PROJECT NO.: 35246.07 YEAR 1 ROUND 2
STAFF: D. SHEPPARD
DATE: OCTOBER 3, 1995 PURGE START PURGE: 1445
OCTOBER 4, 1995 SAMPLE END PURGE: 1505

WELL NO.: OMW-A6

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	23.50	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2	3"	0.38
	P / S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	6.30 / 18.78	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.92	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 8.76 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3	6	8		SAMPLE					
pH	9.15	7.73	7.72	7.51		7.78					
SPEC. COND. (µmhos)	680	100	580	650		820					
TURBIDITY (NTU)	7	73	87	>100		24					
TEMPERATURE (°C)	21.2	19.7	19.9	19.9		23.9					
DISSOLVED OXYGEN (mg/L)											
PID (ppm)	N/D			DRY							

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA

SAMPLE DATA
Time: 1210

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING
PROJECT NO.: 35246.07 YEAR 1 ROUND 2
STAFF: D. SHEPPARD
DATE: OCTOBER 3, 1995 PURGE START PURGE: 1330
OCTOBER 4, 1995 SAMPLE END PURGE: 1338

WELL NO.: OMW-B3

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	17.06	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2	3"	0.38
	P / S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	10.71 / 13.97	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	1.08	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 3.24 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	1	2	3.5		SAMPLE					
pH	6.70	6.57	6.61	6.62		6.76					
SPEC. COND. (µmhos)	1700	1340	1180	1370		1290					
TURBIDITY (NTU)	23	43	36	33		49					
TEMPERATURE (°C)	16.7	15.4	15.5	15.5		15.8					
DISSOLVED OXYGEN (mg/L)											
PID (ppm)	ND										

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA

Clear to v. sl. turbid, Sl. odor.

SAMPLE DATA

TIME: 1030

Clear w/sl yellow tint, no odor.

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING
PROJECT NO.: 35246.07 YEAR 1 ROUND 2
STAFF: D. SHEPPARD
DATE: OCTOBER 3, 1995 PURGE START PURGE: 1405
OCTOBER 4, 1995 SAMPLE END PURGE: 1425

WELL NO.: OMW-B4

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	22.40	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2	3"	0.38
	P / S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	9.25 / 18.01	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	2.24	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 6.72 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2.5	5		SAMPLE						
pH	7.64	7.45	7.41		7.72						
SPEC. COND. (µmhos)	1340	1330	1370		2130						
TURBIDITY (NTU)	12	70	>100		6.5						
TEMPERATURE (°C)	15.9	13.2	13.6		14.1						
DISSOLVED OXYGEN (mg/L)											
PID (ppm)	ND		DRY								

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA

Clear to sl. turbid, no odor.

SAMPLE DATA

Time: 1130

Clear, no odor.

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING
PROJECT NO.: 35246.07 YEAR 1 ROUND 2
STAFF: D. SHEPPARD
DATE: OCTOBER 3, 1995 PURGE START PURGE: 1525
OCTOBER 4, 1995 SAMPLE END PURGE: 1645

WELL NO.: OMW-C1

		WELL ID.	VOL. (GAL./FT.)
1. TOTAL CASING AND SCREEN LENGTH (FT.):	19.62	1"	0.04
		2"	0.17
2. CASING INTERNAL DIAMETER (IN.):	2	3"	0.38
	P / S	4"	0.66
3. WATER LEVEL BELOW TOP OF CASING (FT.):	8.41 / 11.78	5"	1.04
		6"	1.50
4. VOLUME OF WATER IN CASING (GAL.):	1.91	8"	2.60

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 5.73 GAL.

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2	4		SAMPLE						
pH	7.73	7.60	7.53		7.67						
SPEC. COND. (µmhos)	2080	1920	1400		890						
TURBIDITY (NTU)	2.7 LB	>100	>100		8.3						
TEMPERATURE (°C)	14.7	12.6	12.4		14.6						
DISSOLVED OXYGEN (mg/L)											
PID (ppm	ND										

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA

Clear to sl. turbid, no odor.

SAMPLE DATA

TIME: 1440
Clear, no odor

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING
PROJECT NO.: 35246.07 YEAR 1 ROUND 2
STAFF: D. SHEPPARD
DATE: OCTOBER 3, 1995 PURGE START PURGE: 1525
OCTOBER 4, 1995 SAMPLE END PURGE: 1550

WELL NO.: OMW-C5

1. TOTAL CASING AND SCREEN LENGTH (FT.): 26.00
2. CASING INTERNAL DIAMETER (IN.): 2
3. WATER LEVEL BELOW TOP OF CASING (FT.): P 8.22 / S 22.65
4. VOLUME OF WATER IN CASING (GAL.): 3.02
   #1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 9.06 GAL.

WELL ID.	VOL. (GAL./FT.)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	3	6	9.5		SAMPLE					
pH	7.28	7.13	7.33	7.39		7.43					
SPEC. COND. (µmhos)	950	990	990	930		1440					
TURBIDITY (NTU)	1.8	32	58	75		11					
TEMPERATURE (°C)	16.9	14.0	13.7	13.5		13.6					
DISSOLVED OXYGEN (mg/L)											
PID (ppm)	ND										

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA

Clear to sl turbid, no odor.

SAMPLE DATA

TIME: 1300

Clear, no odor MS/MSD

WELL PURGING LOG

URS CONSULTANTS, INC.

PROJECT TITLE: DUNLOP LONG TERM MONITORING

PROJECT NO.: 35246.07 YEAR 1 ROUND 2

STAFF: D. SHEPPARD

DATE: OCTOBER 3, 1995 PURGE START PURGE: 1600

OCTOBER 4, 1995 SAMPLE END PURGE: 1615

WELL NO.: OMW-C7

1. TOTAL CASING AND SCREEN LENGTH (FT.): 23.40

2. CASING INTERNAL DIAMETER (IN.): 2

3. WATER LEVEL BELOW TOP OF CASING (FT.): P 8.26 / S 16.80

4. VOLUME OF WATER IN CASING (GAL.): 2.57

#1-#3 x #2 (Gal./Ft.)

VOLUME OF 3 CASINGS: 7.71 GAL.

WELL ID.	VOL. (GAL./FT.)
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)										
	0	2.5	5		SAMPLE						
pH	7.85	7.72	7.55		7.85						
SPEC. COND. (µmhos)	1050	270	340		1690						
TURBIDITY (NTU)	7.9	72	>100		4.3						
TEMPERATURE (°C)	16.6	15.2	16.8		14.5						
DISSOLVED OXYGEN (mg/L)											
PID (ppm)	ND		DRY								

COMMENTS: WELL PURGED WITH NEW DEDICATED HDPE TUBING AND FOOT VALVE.

PURGE DATA

Clear to sl. turbid, no odor.

SAMPLE DATA

TIME: 1460

Clear, no odor.

APPENDIX B

ANALYTICAL DATA ASSESSMENT REPORT

ANALYTICAL DATA ASSESSMENT REPORT

FOR

DUNLOP TIRE CORPORATION

CLOSURE OF INACTIVE WASTE SITES

NYSDEC NOs 915018 A, B, C

LONG-TERM GROUNDWATER MONITORING PROGRAM

YEAR 1, ROUND 2 - FALL 1995

Prepared by:

URS CONSULTANTS, INC.

DECEMBER, 1995

INTRODUCTION: This analytical data assessment report was prepared by URS Consultants, Inc. (URS), concerning the usability of analytical data produced by IEA, Inc., subcontractor to URS, as part of the Dunlop Tire Corporation Long-Term Monitoring Plan--Closure of Inactive Waste Sites (NYSDEC No's 915018 A, B, C). Seven groundwater monitoring wells (DTC-OMW-A4, OMW-A6, OMW-B3, OMW-B4, OMW-C1, OMW-C5 and OMW-C7) were sampled for Target Compound List (TCL) volatile organic compounds (VOC), TCL semivolatile organic compounds (SVOC), Target Analyte List (TAL) metals (plus cyanide), and total phenols (Table B-1).

All analyses performed by IEA were reviewed for compliance with the methods approved by the NYSDEC Analytical Services Protocol, 9/89, Revision 12/91. URS audited the data deliverable packages for completeness, holding times, laboratory and field quality control (QC), instrument detection limits, instrument calibration, and overall conformance with method and laboratory protocols. Data validation and determination of usability were performed following the general guidelines in USEPA SOP No. HW-6 Revision #8 CLP Organic Data Review, January 1992 and USEPA SOP HW-2 Evaluation of Metals Data for the Contract Laboratory Program, Revision #11, January 1992. One laboratory report (3095-1464) was submitted to URS from IEA which contains the analytical data from the samples. The laboratory report is found in Appendix C, Volume 2 of 2.

CATEGORIES: The following table summarizes our assessment of data usability on a sample-by-sample and fraction-by-fraction basis. In evaluating these data, we have established four categories which are defined as follows.

Category 1a - Fully Usable Data - Fully usable, despite possible minor deviations from ASP criteria.

Category 1b - Data Usable But Qualified as Estimated - Usable with caution; cumulative deviations from ASP criteria are greater than Category 1a, although not considered so significant as to jeopardize the chemical representativeness of the sample results.

Category 2a - Rejected Fraction(s)/Compound(s) Due to Holding Time Violations - Did not comply with ASP holding time.

Category 2b - Rejected Fraction(s)/Compounds(s) Due to Various ASP Deviations - In a sample fraction, some compounds may be usable while other compounds may be rejected, or the whole sample fraction (i.e., metals, VOCs, etc.) may be rejected due to various deviations from ASP.

ASSESSMENT SUMMARY - Based on the results of the data validation, analytical results for volatile organic compounds, semivolatile organic compounds, cyanide and phenols were assigned

to Category 1a. The analytical results for these compounds are fully usable. Metals data were assigned Category 1a and 1b. This indicates that while most of the analytes within this fraction are fully usable (1a), others are usable with caution (1b) due to the presence of some estimated values. A summary of detections is presented on Table B-2.

Organic Compounds

It should be noted that phthalate esters were detected in the method blank as well as in some of the samples. In accordance with the referenced guidance documents, if the concentration of a compound (phthalates) in a sample is less than the contract-required quantitation limit (CRQL) and less than ten times the concentration of the compound in the associated QC blanks, then the compound concentration is negated and qualified as non-detect at the CRQL. If the concentration of a compound in a sample is greater than the CRQL, but still less than the concentration of the associated QC blanks, then the compound concentration is negated and qualified as non-detect at the sample result level.

The phthalate esters di-n-butylphthalate and bis(2-ethylhexyl)phthalate were detected in six of the seven samples at concentrations less than the CRQL and less than the referenced guidelines. Bis(2-ethylhexyl)phthalate was detected in every sample at a concentration less than the CRQL and referenced guidelines. The detections were therefore negated, making the reported values non-detects at the CRQL. Phthalate esters also are common laboratory/field contaminants found in plastic-ware. The phthalate esters may have originated from the polyethylene construction of the bailer used to collect the samples, or the latex sampling/lab gloves.

Inorganic Analytes

Analytical results for metals showed aluminum, calcium, iron, lead, magnesium, manganese, nickel, potassium, sodium and zinc detected at concentrations $\geq$ 10 times the instrument detection limit (IDL) for some of the samples. It was therefore necessary to perform a serial dilution. However, the results of the serial dilution reanalysis for potassium and zinc did not meet the validation guideline criteria because the relative percent difference was greater than 10% but

The Laboratory Reports identified above are in compliance with the terms and conditions of the laboratory subcontract agreement. Release of the data for this investigation has been authorized by the Project QA/QC Officer and the Project Manager by the following signatures.

Robert C. Najjar, Ph.D.
Project QA/QC Officer

Robert E. Murphy, P.E.
Project Manager

TABLE B-1

DUNLOP TIRE CORPORATION
LONG-TERM MONITORING PLAN
INACTIVE WASTE SITES 91508 A, B AND C

ANALYTICAL SCHEDULE A

Schedule A (Superfund Deliverable Data Package)

Parameter	Method Number	Reference
TCL Volatiles	91-1	1
TCL Semivolatiles	91-2	1
*TAL Metals (24)		
Aluminum	200.7 CLP-M	
Antimony	200.7 CLP-M	
Arsenic	206.2 CLP-M	
Barium	200.7 CLP-M	
Beryllium	200.7 CLP-M	
Cadmium	200.7 CLP-M	
Calcium	200.7 CLP-M	
Chromium	200.7 CLP-M	
Cobalt	200.7 CLP-M	
Copper	200.7 CLP-M	
Iron	200.7 CLP-M	
Lead	239.2 CLP-M	
Magnesium	200.7 CLP-M	
Manganese	200.7 CLP-M	
Mercury	245.1 CLP-M & 245.5 CLP-M	
Nickel	200.7 CLP-M	
Potassium	200.7 CLP-M	
Selenium	270.2 CLP-M	
Silver	200.7 CLP-M	
Sodium	200.7 CLP-M	
Thallium	279.2 CLP-M	
Vanadium	200.7 CLP-M	
Zinc	200.7 CLP-M	
Cyanide	335.2 CLP-M	
Total Phenols	9065	1
pH (Field)	150.2	1
Specific Conductance (Field)	150.2	1
Temperature (Field)	170.1	2
Static Water Levels	--	

TABLE B-2

SUMMARY OF ANALYTICAL DETECTIONS
FOR THE
DUNLOP TIRE CORPORATION
LONG TERM MONITORING
NYSDEC NO'S 915018 A, B, C
YEAR 1 - ROUND 2 GROUNDWATER SAMPLES
FALL 1995

Sample ID		DTC-OMW-A6	DTC-OMW-A4	DTC-OMW-B3	DTC-OMW-B4	DTC-OMW-C1	DTC-OMW-C5	DTC-OMW-C7
Monitor Type		Upgradient	Downgradient	Downgradient	Downgradient	Upgradient	Downgradient	Downgradient
Date Sampled		10/04/95	10/04/95	10/04/95	10/04/95	10/04/95	10/04/95	10/04/95
Date Extracted		10/09/95	10/09/95	10/09/95	10/09/95	10/09/95	10/09/95	10/09/95
Date Analyzed		10/24/95	10/24/95	10/24/95	10/25/95	10/27/95	10/24/95	10/24/95
Dilution		1	1	1	1	1	1	1
Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Parameters	Type							
Acenaphthene	SVOC			2 J				
Dibenzofuran	SVOC			0.6 J				
Fluorene	SVOC			1 J				
Phenanthrene	SVOC			0.3 J				
Anthracene	SVOC			0.2 J				
Diethylphthalate	SVOC	0.4 J	0.5 J	0.3 J	0.3 J	0.4 J	0.4 J	0.4 J
Total Phenol	SVOC	12	19	17	8	15	16	18
Aluminum	MET	129 B	86.6 B	161 B	153 B	170 B	110 B	173 B
Antimony	MET			6.6 B				3.8 B
Arsenic	MET			8.1 B				
Barium	MET	86.7 B	7.2 B	333	13.2 B	11.1 B	13.6 B	13.2 B
Calcium	MET	54100	327000	188000	106000	125000	104000	107000
Chromium	MET	1.4 B		5 B	1.1 B	2.1 B	2.8 B	1.3 B
Cobalt	MET		5.1 B	3.8 B			1.5 B	2 B
Copper	MET	23.6 B	2.7 B				6.1 B	
Iron	MET	67.7 B	262	34500	110	112	163	96.2 B
Lead	MET	4.4 J		15.3 J			60.8 J	
Magnesium	MET	110000	1230000	132000	403000	511000	275000	443000
Manganese	MET	86	414	494	58.9	19.7	242	205
Nickel	MET	14.8 B	27.8 B	10 B	5 B	5.4 B	14 B	10.9 B
Potassium	MET	5670 J	32100 J	9210 J	12800 J	13100 J	9610 J	13400 J
Selenium	MET			4.3 B				
Sodium	MET	33700	253000	59200	165000	149000	83900	143000
Vanadium	MET			1.3 B				
Zinc	MET	92.7 J	35.8 J	102 J	60.6 J	52.9 J	62.6 J	41.9 J

NOTES:

All compounds were analyzed for. A blank indicates a non-detect.

Organic qualifiers

J - Indicates that the compound was analyzed for and determined to be present in the sample. The concentration listed is an estimated value which is less than the Contract Required Detection Limit but is greater than zero.

Inorganic Qualifiers

J - Indicates an estimated concentration because quality control criteria was not met.

B - Indicates the sample result is less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit.

MADE BY SN DATE 11-16-95
CHKD BY DM DATE 12-4-95