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COST - PROJECT 64b

ANALYSIS OF ORGANIC MICROPOLLUTANTS IN WATER

MANAGEMENT COMMITTEE

A COMPREHENSIVE LIST OF POLLUTING SUBSTANCES WHICH  
HAVE BEEN IDENTIFIED IN VARIOUS FRESH WATERS, EFFLUENT DISCHARGES,  
AQUATIC ANIMALS AND PLANTS, AND BOTTOM SEDIMENTS

SECOND EDITION

1976

A comprehensive list of polluting substances which  
have been identified in various fresh waters, effluent discharges,  
aquatic animals and plants, and bottom sediments

compiled

by

Water Research Centre (Stevenage Laboratory)  
Elder Way  
Stevenage  
Hertfordshire SG1 1TH  
England

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INTRODUCTION

The following list of organic substances present in the environment has been compiled from data contributed by the Laboratories participating in the COST project 64b 'Micropollutants' and from the literature dating from 1960 onwards. However, some important data published prior to that date, have been included especially if there is a scarcity of information available after 1960. The list is not fully comprehensive in certain cases where there is a wealth of repetitive information e.g pesticides and PCBs. Here a representative selection of data has been taken.

The main sub-headings have been listed in order of general toxicity and compounds which could be assigned to several sub-groups have been usually classified in the one at the top of the list. Assignment has been made according to chemical structure, however, in two cases a physical property has been used instead, i.e optical brighteners and surfactants.

In many cases it has been possible to identify positively polluting compounds but not to estimate their concentration in the sample. Data have been recorded in this report even where concentrations have not been measured since identification of pollutants is of great value in itself. Concentrations have been invariably given in g/l for water samples and mg/kg for solid samples using factors of  $10^{-3}$  (mg/l,  $\mu\text{g}/\text{kg}$ ),  $10^{-6}$  ( $\mu\text{g}/\text{l}$ , ng/kg), etc. for lower concentrations. N.D. (not determined) signifies that the compound is present but a quantitative estimation is not possible using the method of analysis employed.

No attempt has been made to give the full systematic names of compounds in every case. The name as provided by the contributing laboratory or as abstracted from the literature has been used. Where trade names are more familiar these have been listed. In many cases trivial names or non-systematic names have been used because identification is incomplete. Data relating to groups of compounds rather than individual substances are also reported in several cases.

Where information is available the type of sample under investigation and the location of sampling has been stated by use of appropriate key letters and numbers, (see page vi). Examples include sewage effluent, E.D3, textile mill effluent, E.I14, lowland river waters, SF.RL, etc. An oblique stroke stands for 'receiving' e.g. SF.R/E.18 refers to a river water receiving a petroleum refinery effluent. A hyphen stands for 'in' e.g. S.SD-SF.L refers to a bottom sediment in a lake.

The various analytical techniques employed in the analysis have also been listed where data is available, (see page x). Where data has been abstracted from the literature the appropriate references are given in the bibliography (page 115) and where contributed by a participating laboratory indication has been given by use of key letters (see page v).

Data in the lists which have been collated since the previous edition was published (Oct. 1974) have been denoted by the insertion of an asterisk (\*) in the right hand column against each new entry.

KEYS

(iv)

Contributing Laboratories from COST Project, 64b

CEN Centre D'Etudes Nucleaire De Grenoble, France.  
EAWAG Eidgenössische Technische Hochschulen, Switzerland.  
EPA Environmental Protection Agency Laboratories, USA.  
KK Kernforschungszentrum Karlsruhe, German Federal Republic.  
RID Rijksinstituut voor Drinkwatervoorziening, The Netherlands.  
RIV Rijksinstituut voor de Volksgezondheid, The Netherlands.  
RVA Royal Veterinary and Agricultural College, Denmark.  
SETUDE Société D'Etudes Pour Le Traitement et L'Utilisation Des Eaux, France.  
SLEE Société Lyonnaise Des Eaux et De L'Eclairage, France.  
UNS University Novi Sad, Yugoslavia.  
WRC Water Research Centre, UK.



Type of sample

SF	Surface waters	
L	Lakes, fjords and reservoirs	
	1	Zurich
	2	Constance
	3	Superior
	4	Ukrainian reservoirs
	5	Russia
	6	Michigan
	7	Isefjord (Denmark)
	8	Clayton Lake (New Mexico)
	9	Grand Lake (Ohio)
	10	Japan
	11	New Zealand
	12	Ontario lakes
	13	France
	14	Great Lakes (USA & Canada)
	15	Sweden
	16	Ijssel (Netherlands)
LR	Land run-off	
	1	from crop spraying
	2	forest spraying
R	River water	
RL	Lowland rivers	
RU	Upland rivers	
	1	Danube (Novi Sad)
	2	Essex rivers (U.K.)
	3	Kent rivers "
	4	Lee "
	5	Rhine
	6	Thames (U.Y.)
	7	U.S. rivers
	8	Volga
	9	Seine
	10	Kanawha (W. Virginia)
	11	Escambia (Florida)
	12	Charles (Boston)
	13	Kennet (U.K.)
	14	Trent "
	15	Pskov region (USSR)
	16	Soviet rivers
	17	Waal (Netherlands)
	18	Japanese rivers
	19	Mississippi (USA)
	20	Sinake River (USA)
	21	Colorado River (USA)
	22	Red River (USA)
	23	Chattahoochee R. (Alabama)
	24	Savannah R. (USA)
	25	Merrimack R. (Mass)
	26	Yakima R. (Washington)
	27	Yellowstone R. (Montana)
	28	Hudson R. (USA)
	29	Missouri R. (USA)
	30	Brazos R. (Texas)

31	Rio Grande (Texas)
32	Sacramento R. (California)
33	Columbia R. (Oregon)
34	Connecticut R. (USA)
35	Allegheny R. (USA)
36	Ohio R. (USA)
37	Arkansas R. (USA)
38	Apalachicola R. (USA)
39	R. Meuse (The Netherlands)
40	R. Scheldt (The Netherlands)
41	Potomac R. (USA)
42	Susquehanna R. (USA)
43	Niagara R. (USA)
44	Mohawk R. (USA)
45	Tombigbee R. (Alabama)
46	Black Warrior R. (Alabama)
47	Don (Yorkshire, U.K.)
48	Aire (U.K.)
49	Calder (U.K.)
50	Bain (U.K.)
51	Witham (U.K.)
52	Gt. Ouse (U.K.)
53	Flit (U.K.)
54	Roding (U.K.)
55	Chelmer (U.K.)
56	Milwaukee R.
57	Italian rivers
58	Czechoslovakian rivers
59	USA rivers
60	Illinois rivers
61	Kansas rivers
62	R. Ruhr
63	R. Rhone
64	R. Göta (Sweden)
65	Wabash R. (Indiana)
66	Tamagawa (Japan)
67	Netherlands rivers
68	Maas (Netherlands)
69	Glatt (Switzerland)
70	German rivers
71	Delaware R. (USA)
72	San Francisco Bay streams

**Effluent discharges**

<b>D</b>	<b>Waste water from various stages of treatment of sewage and industrial wastes.</b>
1	crude sewage
2	settled sewage
3	effluent from a biological treatment plant
3a	" " an activated sludge plant
3b	" " a percolating filter
4	" " an oxidation pond
5	" " sludge conditioning
6	chlorinated biologically treated effluent
7	effluent from physico-chemical treatment
<b>S</b>	<b>Solid wastes from various stages of treatment of sewage and industrial wastes.</b>
1	digested sludge
2	activated sludge
3	humus solids
<b>I</b>	<b>Industrial effluent discharges</b>
1	from acrylamide manufacture
2	clay pits
3	coal washing
4	herbicide manufacture
5	paper mills
6	mothproofing of woollens
7	water works sludge conditioning
8	petroleum refining
9	wood preserving plant
10	pesticide manufacture
11	shale refining
12	coking works
13	kerosene and paraffin processing
14	textile finishing
15	paint manufacture
16	rubber industry
17	power station cooling water
18	nylon production
19	tar distillation
20	latex manufacture
21	dye manufacture
22	acrylic fibre manufacture
23	chemical production
24	explosives manufacture
25	carpet factory
26	glass manufacture
27	metal works
28	printing works
29	cement production
30	fibreglass manufacture
31	plastics manufacture
32	clothes production
33	foundries
34	die, moulding, stamping and casting
35	chipboard plant

LF	Landfill leachate	
SB	Subterranean waters	
		1 Iowa, USA
		2 Germany
		3 U.K.
		4 Wisconsin wells
		5 Michigan wells
		6 Switzerland
T	Tap water	
		1 New Orleans, USA
		2 Czechoslovakia
		3 Zurich
		4 Germany
		5 U.K.
		6 The Netherlands
		7 USA
		8 New Jersey, USA
		9 Rome
		10 District of Columbia, USA
		11 Waterloo, Iowa, USA
		12 Cincinnati, USA
RF	Rainfall	
S	Solid samples	
	SD	sediments
	F	fish
	A	algae
	P	plankton
	WP	water plants
	PC	polychaetes
	C	crustaceans
	P & B	prosobranchs and bivalves

Analysis and/or estimation:

c	Colorimetric analysis
fp	Fluorescence photometry
glc	Gas liquid chromatography
hplc	High pressure liquid chromatography
ir	Infrared spectroscopy
lc	Liquid chromatography
ms	Mass spectrometry
nmr	Nuclear magnetic resonance
pc	Paper chromatography
sf	Spectrofluorimetry
ssms	Spark source mass spectrometry
tlc	Thin layer chromatography
uv	Ultraviolet spectroscopy
v:f366	'Vitatron' plate scanner: fluorescence detection method at 366 nm.

DATA LIST

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<b><u>POLYNUCLEAR AROMATIC HYDROCARBONS AND BENZENE</u></b>						
Acenaphthene	$1.7 \times 10^{-6}$	EPA	SB1 E.I8	1973	gle ms uv	1
	$0.2 \times 10^{-3}$	"	E.I9		glo ms	2
	* $0.3 \times 10^{-6}(\text{max})$	"	E.I0 SF.L1 & T3 SF.R5		"	"
Acenaphthylene	$19.3 \times 10^{-6}$	EPA	SB1 E.I8		glo ms uv nmr glo ms	1 2
Alkyl naphthalenes	$<5 \times 10^{-6}$		SB1		ms	1
Anthracene	$1.6-7.0 \times 10^{-6}$	EAWAG	E.I12 E.D3 SF.R17	Apr. '74 1972	lc uv glo ms	3 124
	* $1.1-59.7 \times 10^{-9}$	EAWAG	T9 T3, SB6, SF. R69		1972-73	" tlc
	* $1.0 \times 10^{-6}(\text{max})$	RID	SF.R5		glo ms	136
	* $<0.1 \times 10^{-6}$	"	T.6			
Anthracene and phenanthrene	$0.7 \times 10^{-6}$	GEN KK	SF.R SF.R5 SF.R12	Oct. 1971 1970/71 1971	glo ms " "	4 5
1,2-Benzanthracene	$0.07-31.4 \times 10^{-6}$		E.D1	1965-66	lc tlc	143
	$0.23-6.0 \times 10^{-6}$		E.D2	"	"	"
	$0.05-0.11 \times 10^{-6}$		E.D3	"	"	"
	0.75 & 1.76		E.S1	"	"	"
	0.23 & 0.67		E.S2 SF.R5	"	"	"
	$0.4-10.7 \times 10^{-9}$		T.9	1972-73	pe uv tlc	6,7 132
3,4-Benzanthracene	$27 \times 10^{-3}$		E.I19			8
	$0.6 \times 10^{-3}$		E.D3/E.I19			"





Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
11,12-Benzfluoranthene	(contd)					
	4-12 x 10 <sup>-9</sup>	WRC	SF.R6	1973	tlc	
	<5-15 x 10 <sup>-9</sup>	"	SF.R4	"	"	
	2-8 x 10 <sup>-9</sup>	"	T5	"	"	
	1 x 10 <sup>-9</sup>	"	SB3	"	"	
	* <2.5&15x10 <sup>-6</sup>	"	E.D3b	"	"	
	* 0.11-8.1x10 <sup>-6</sup>	"	E.D1	1965-66	lc tlc	143
	* 0.04-2.2x10 <sup>-6</sup>	"	E.D2	"	"	"
	* 4-70 x 10 <sup>-9</sup>	"	E.D3	"	"	"
	* 0.36 & 0.67	"	E.S1	"	"	"
	* 0.15 & 1.27	"	E.S2	"	"	"
	4-5 x 10 <sup>-9</sup>	WRC	SF.R13	Nov. '73	tlc	
	15-30 x 10 <sup>-9</sup>	"	SF.R14	1973	"	
	10 x 10 <sup>-9</sup>	"	E.D3b	Nov. '73	"	
	* 0.34x10 <sup>-6</sup> (max)	RID	E.D3			
	* 59 x 10 <sup>-9</sup> }	"	E.I23			
	* 0.23x10 <sup>-6</sup> }	"	SF.R5			
	* 0.22x10 <sup>-6</sup> }	"	SF.R39			
	* <5 x 10 <sup>-9</sup> }	"	T6			
	1,12-Benzperylene	* 0.81x10 <sup>-6</sup> (max)	RID	E.D3		
* 0.17x10 <sup>-6</sup> }		"	E.I23			
* 0.22x10 <sup>-6</sup> }		"	SF.R5			
* 0.39x10 <sup>-6</sup> }		"	SF.R39			
* 0.13x10 <sup>-6</sup> }		"	T6			
0.14-0.4x10 <sup>-6</sup>		"	E.I12		lc uv	3
			SF.R5		pe uv	6,7
0.8-7.1x10 <sup>-9</sup>			T4		tlc	11
0.7-5x10 <sup>-9</sup>			SB2		"	"
20-60 x 10 <sup>-9</sup>		WRC	SF.R6	1973	"	
15-50 x 10 <sup>-9</sup>		"	SF.R4	"	"	
3-12 x 10 <sup>-9</sup>		"	T5	"	"	
2 x 10 <sup>-9</sup>		"	SB3	"	"	
7.5-10 x 10 <sup>-9</sup>		"	SF.R13	Nov. '73	"	
20-50 x 10 <sup>-9</sup>		"	SF.R14	1973	"	
20 x 10 <sup>-9</sup>		"	E.D3b	Nov. '73	"	
* 0.19-8.7x10 <sup>-6</sup>		"	E.D1	1965-66	lc tlc	143
* 0.07-1.2x10 <sup>-6</sup>		"	E.D2	"	"	"
* 0.02-0.12x10 <sup>-6</sup>		"	E.D3	"	"	"
* 0.52 & 0.69		"	E.S1	"	"	"
* 0.20 & 1.22	"	E.S2	"	"	"	
* 5 & 40 x 10 <sup>-6</sup>	"	E.D3b	1973	tlc	"	
3,4-Benzpyrene	* 0.7-8.8x10 <sup>-6</sup>		P-SF.L5			140
	* 44-500x10 <sup>-6</sup>		SD-SF.L5			"
	* 0.6-37.8x10 <sup>-6</sup>		WP-SF.L5			"

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	
3,4-Benzopyrene (contd.)					
*	up to $19.0 \times 10^{-6}$		SD-SF.R16		19
*	$1.8-5.0 \times 10^{-6}$		SD-SF.L5		139
*	$5 \times 10^{-6}$		A-SF.R15		13
*	$1-2 \times 10^{-6}$		SD-SF.R15		"
	$10 \times 10^{-9}$		T		7, 12
	$0.1 \times 10^{-9}$		SF.R5		6
	$0.01-0.1 \times 10^{-9}$		SF.R8/E.I8		13
	$1.7 \times 10^{-3}$		SF.R15		14
	$0.34-1.0 \times 10^{-6}$		E.D3/E.I19		8
	$30-300 \times 10^{-6}$		E.I12		3
	$1 \times 10^{-6}$		E.D1/I8, 11, 12]		15
	$0.5 \times 10^{-3}$		T/E.D1/I8, 11, 12]		"
	$130-290 \times 10^{-6}$		ED1/I11		16
	$6 \times 10^{-3}$		E.D3/I12		"
	$520-630 \times 10^{-6}$		E.I13		"
	8.2-17		E.I12		"
	15		SD.R/E.I12		"
	15		SD.R9		"
	15		SD.L2		"
	$3-290 \times 10^{-6}$		E.I12		17
	$0.1 \times 10^{-3}$		E.I11		18
*	$0.2-5.5 \times 10^{-9}$		T9	1972-73	132
*	$2-320 \times 10^{-6}$		E.I11		137
*	$6.5-1000 \times 10^{-6}$		E.I12		"
*	N.D.		E.I8		"
*	$0.170 \times 10^{-6}$		E.D2		"
*	$0.001-1.840 \times 10^{-6}$		E.D3		"
*	$4-13 \times 10^{-6}$		SF.L5		139
*	$78-150 \times 10^{-9}$		SF.R34		138
*	$4 \& 60 \times 10^{-6}$	WRC	E.D3b	1973	tle
	$40-290 \times 10^{-6}$		E.I12		18
	$50-500 \times 10^{-9}$		E.I8		19
	$0.3-8.6 \times 10^{-9}$		T4		tle
	$0.4-5 \times 10^{-9}$		SB2		"
	$16-50 \times 10^{-9}$	WRC	SF.R6	1973	"
	$10-20 \times 10^{-9}$	"	SF.R4	"	"
	$5-12 \times 10^{-9}$	"	T5	"	"
	$6 \times 10^{-9}$	"	SB3	"	"
	$7.5-10 \times 10^{-9}$	"	SF.R13	Nov. '73	"
	$30-50 \times 10^{-9}$	"	SF.R14	1973	"
	$20 \times 10^{-9}$	"	E.D3b	Nov. '73	"
*	$0.05-0.11 \times 10^{-6}$		SF.R5		137
*	$1-40 \times 10^{-9}$		SF.R70		"
*	$0.078-0.150 \times 10^{-6}$		SF.R59(ene)		138
*	$0.05-3.5 \times 10^{-6}$		SF.R16/E.I8		19
*	$0.31 \times 10^{-6}$	RID	ED.3		
*	$81 \times 10^{-9}$	"	E.I23		
*	$0.15 \times 10^{-6}$	"	SF.R5		
*	$1.0 \times 10^{-6}$	"	SF.R39		
*	$5 \times 10^{-9}$	"	T6		

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
3,4-Benzpyrene (contd)	* 0.1-34.5x10 <sup>-6</sup>		ED1	1965-66	le tlc	143
	* 0.06-1.4x10 <sup>-6</sup>		ED2	"	"	"
	* 0.01-0.07x10 <sup>-6</sup>		ED3	"	"	"
	* 0.63 & 0.66		E.S1	"	"	"
	* 0.12 & 1.33		E.S2	"	"	"
Biphenyl		KK CEN EPA	SF.R5	1970/71	glo ms	4
			SF.R	1972	"	2
			SF.R/E.I14		"	10
		RAWAG	SF.L1		"	123
			SF.L1 T3, SE6]	1973	"	133
			ED.3		"	124
			E.D3	Apr. '74	"	68
		SF.R25	1972-73	"		
Bitumen type compounds	0.08-0.1x10 <sup>-3</sup>		SF.R8			125
Chrysene			SF.R5		pe uv	6
			SF.R17	1972	glo ms	29
1,2,5,6-Dibenzanthracene			SF.R5		pe uv	6
			SF.R8/E.I8			13
Dimethylnaphthalene isomers		KK	SF.R5	1970/71	glo ms	4
			SF.L1		"	10
		EPA	E.I8		"	15
		"	LF/E.I8,15		"	"
		SF.L1,T3, SE6]	1973	"	123	
2,6-Dimethylnaphthalene	15 x 10 <sup>-6</sup> 1.0 x 10 <sup>-6</sup>	EPA RID	E.I18 T6		glo ms	2,20

(1) Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Ethlynaphthalene isomer		EPA	E.I8		gle ms	2,20
Fluoranthene			SF.R5		pc uv	6
	20-100x10 <sup>-9</sup>		T4		tle	11
	6.5-100x10 <sup>-9</sup>		SB2		"	"
	0.6 x 10 <sup>-3</sup>	EPA	E.I9		gle ms	2
			SF.R12	1971	"	5
	20-70x10 <sup>-9</sup>	WRC	SF.R6	1973	tle	
	11 x 10 <sup>-9</sup>	"	SB3	"	"	
	15-75x10 <sup>-9</sup>	"	SF.R4	"	"	
	20-30 x 10 <sup>-9</sup>	"	SF.R13	Nov. '73	"	
	100-150x10 <sup>-9</sup>	"	SF.R14	1973	"	
	40 x 10 <sup>-9</sup>	"	E.D3b	Nov. '73	"	
	1.7 x 10 <sup>-6</sup>		E.I12		le uv	3
		EAWAG	E.D3	Apr. '74	gle ms	124
			SF.R17	1972	"	29
	* 10 x 10 <sup>-9</sup>	WRC	E.D3b	June '75	hple fp	
	* 7.2-132.6x10 <sup>-9</sup>		T9	1972-73	tle	132
	* 0.64x10 <sup>-6</sup> (max)	RID	ED.3			
	* 3.4 x10 <sup>-6</sup> }	"	SF.R5			
	* 2.2x10 <sup>-6</sup> }	"	SF.R39			
	* 47 x10 <sup>-9</sup> }	"	T6			
	* 0.16-45.3x10 <sup>-6</sup>		E.D1	1965-66	le tlc	143
	* 0.84-14.6x10 <sup>-6</sup>		E.D2	"	"	"
	* 0.118-0.53x10 <sup>-6</sup>		E.D3	"	"	"
	* 3.26 & 4.09		E.S1	"	"	"
	* 0.58 & 2.78		E.S2	"	"	"
	* 30 & 60 x 10 <sup>-6</sup>	WRC	E.D3b	1973	tle	
Fluoranthene and pyrene	0.2 x 10 <sup>-6</sup>	CEN	SF.R	Oct. '71	gle ms	
Fluorene	0.17 x 10 <sup>-3</sup>	EPA	E.I9		gle ms	2
		"	E.I8		"	2,20
		EAWAG	E.D3	Apr. '74	"	124
	* 0.3x10 <sup>-6</sup> (max)		SF.R17	1972	"	29
			SF.R5		"	141
Indene	18 x 10 <sup>-6</sup>		SB1		gle ms uv	1

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Indene (contd)	26 x 10 <sup>-6</sup>	EPA	T3 & SF.L1 E.I8		glc ms	22
	"	"	E.D3a		"	2
	* 10 x 10 <sup>-6</sup>	RID	E.I8		"	142
	* 0.1 x 10 <sup>-6</sup>	"	T6			
Indeno(1,2,3-cd)pyrene	0.4-3.0x10 <sup>-9</sup>		SF.R5		pc uv	6
	0.2-5 x 10 <sup>-9</sup>		T4		tlc	11
	8-50 x 10 <sup>-9</sup>	WRC	SB2		"	"
	5-20 x 10 <sup>-9</sup>	"	SF.R6	1973	"	
	2-8 x 10 <sup>-9</sup>	"	SF.R4	"	"	
	1 x 10 <sup>-9</sup>	"	T5	"	"	
	4-7.5 x 10 <sup>-9</sup>	"	SB3	"	"	
	10-25 x 10 <sup>-9</sup>	"	SF.R13	Nov. '73	"	
	10 x 10 <sup>-9</sup>	"	SF.R14	1973	"	
	* 0.3-4.8 x 10 <sup>-9</sup>	"	E.D3b	Nov. '73	"	
	* 0.16 x 10 <sup>-6</sup>	RID	T9	1972-73	"	132
	* 0.15 x 10 <sup>-6</sup>	"	E.D3			
	* 0.27 x 10 <sup>-6</sup>	"	E.I			
	* 1.4 x 10 <sup>-6</sup>	"	SF.R5			
	* 4 x 10 <sup>-9</sup>	"	SF.R39			
	* 0.12 - 15.0x10 <sup>-6</sup>	"	T6			
	* 0.06-3.0x10 <sup>-6</sup>		E.D1	1965-66	lc tlc	143
	* 0.01-0.12x10 <sup>-6</sup>		E.D2	"	"	"
	* 0.64 & 0.67		E.D3	"	"	"
	* 0.47 & 1.2		E.S1	"	"	"
* 2.5 & 30 x10 <sup>-6</sup>	WRC	E.S2	"	"	"	
		E.D3b	1973	tlc		

Reference	Concentration ( $\mu\text{g}/\text{kg}$ -solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Methylbiphenyl isomers		EPA	E.I8		glc ms	2,20
3-Methylbiphenyl		EPA	LF/E.I8,15		glc ms	20
Methylethyl-naphthalene isomer		EPA	E.I8		glc ms	2,20
Methylindene	$2 \times 10^{-6}$	EPA	E.I8		glc ms	2
* 100 x $10^{-6}$		RID	E.I8			142
* 10 x $10^{-6}$		"	SF.R40			
3-Methylindene	$3 \times 10^{-6}$	EPA	E.I8		glc ms	2
Methylindene isomers	$18.8 \times 10^{-6}$		SB1		ms	1
Methylnaphthalene isomers			SF.R12	1971	glc ms	5
		KK	SF.R5	1970/71	"	4
		EAWAG	SF.L	1972	"	
		EPA	E.I9		"	2
		"	E.I10		"	"
		"	LF/E.I8,15		"	20
			T3 & SF.L1		"	22
			SF.R5		"	23
			E.D3		"	133
			T11	Apr. '72	"	135
1-Methylnaphthalene	$11 \times 10^{-6}$		SB1		glc ms uv ir	1
			SF.L1		glc ms	10
		EPA	SF.R/E.I14		"	2,20
	$5-25 \times 10^{-6}$	"	E.I8		"	20
	$2 \times 10^{-6}$	"	E.I16		"	"
		"	E.I17		"	24
			SF.L1, T3, SB6]	1973	"	123
		EAWAG	E.D3	Apr. '74	"	124
		"	T3, SB6, SF.R69]		"	136
		RID	E.I8			142
		"	E.I23			
			SF.R5			141
	* $0.1 \times 10^{-3}$					
	* $0.01 \times 10^{-3}$					
	* $0.6 \times 10^{-6}$					

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences	
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation		
2-Methylnaphthalene	* 0.03 x 10 <sup>-3</sup>	RID	E.I23				
	* 10 x 10 <sup>-6</sup>	"	SF.R40				
		EAWAG	SF.L	1972	gle ms	10	
	13-30x10 <sup>-6</sup>	EPA	SF.L1		"	2,20	
		"	E.I8		"	24	
		"	E.I17		"	123	
	1.4 x 10 <sup>-6</sup>	EAWAG	SF.L1,T3,SB6]1973	Apr. '74	"	124	
		"	E.D3		"	136	
		"	T3,SB6,SF.R69]		"		
Methylphenanthrene		EPA	E.I9		gle ms	2	
		EAWAG	E.D3	Apr. '74	"	124	
Naphthalene		EAWAG	SF.L	1972			
		KK	SF.R5	1970/71	gle ms	4	
			SB1		ms	1	
			SF.R10		gle ir	25	
			T3 & SF.L1		gle ms	22	
			SF.L1		"	10	
		53 x 10 <sup>-6</sup>	EPA	E.I18		"	2
			"	E.I8		"	2,20
			"	E.I10		"	2
			"	SF.R11		"	20
			"	SF.R5		"	23
		0.1-3.4x10 <sup>-6</sup>	EAWAG	SF.R12	1971	hplc	5
				E.D3	Apr. '74	gle ms	124
			SF.R5/E.I			122	
			SF.R17	1972	gle ms	29	
			E.D3		"	133	
			T10		"	134	
			T11	Apr. '72	"	135	
		EAWAG	T3,SB6,SF.R69]		"	136	
	1.0 x 10 <sup>-3</sup>	RID	E.I8			142	
	3.0x10 <sup>-6</sup> (max)	"	SF.R5			"	
	0.1x10 <sup>-6</sup>	"	T6				
Perylene	* 0.1-1.4x10 <sup>-9</sup>		T9	1972-73	tle	132	
	* 0.03-3.0x10 <sup>-6</sup>		E.D1	1965-66	le tle	143	

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) References	
		Laboratory	Type (2) of sample	Date (3) of Sampling		Analysis (4) and/or Estimation
Phenanthrene	1.4 x 10 <sup>-3</sup>	EPA EAWAG	E.I9 E.D3 SF.R17	Apr. '74 1972	gle ms " "	2 124 29
	* * 0.5 x 10 <sup>-6</sup>	EAWAG RID	T3, SB6, SF.R69] SF.R5		"	136
Pyrene		CEN EPA	SF.R E.I9 SF.R12	1970 1971	gle ms " "	2 5
	0.43-1.55x10 <sup>-9</sup>		E.D1		lc uv	3
	0.23-1.25x10 <sup>-9</sup>		E.D3a		"	"
	0.45 x 10 <sup>-9</sup>		E.D3b		"	"
	2.7-7.0x10 <sup>-6</sup>		E.I12		"	"
		EAWAG	E.D3 SF.R17	Apr. '74 1972	gle ms "	124 29
	* * * * * * * * * * * * * 2.0-25.1x10 <sup>-9</sup>	EAWAG RID "	T9 T3, SB6, SF.R69] SF.R5 SF.R39	1972-73	tle gle ms	132 136 141
	0.1 x 10 <sup>-6</sup>		E.D1	1965-66	lc tlc	143
	0.1 x 10 <sup>-6</sup>		E.D2	"	"	"
	0.98-11.8x10 <sup>-6</sup>		E.D3	"	"	"
	0.35-2.3x10 <sup>-6</sup>		E.S1	"	"	"
	0.04-0.34x10 <sup>-6</sup>		E.S2	"	"	"
	1.29 & 3.08					
0.57 & 1.22						



Reference	Concentration ( $\mu\text{g/l-water}$ ; $\text{ng/kg-solid}$ samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Pyrene and fluoranthene	$0.2 \times 10^{-6}$	GEN	SF.R	Oct 1971	glc ms	
o-Terphenyl			T3 & SF.L1		glc ms	22
Tetramethylnaphthalene		KK	SF.R5	1970/71	glc ms	4
Total PAH		WRC	E.D3b	Jan 1972	hplc	
	$<10 \times 10^{-9}$		SB2		tlc	11
	$50 \times 10^{-9}$		SF.R5		"	11,21
	$0.1-1.3 \times 10^{-6}$		T4		"	11
	$\sim 100 \times 10^{-9}$		E.D3		"	"
	$130 \times 10^{-6}$		SD.R15		"	14
	$<1-2 \times 10^{-3}$		A.R15		"	"
	$<5 \times 10^{-3}$		SB2		"	21
	$1-10 \times 10^{-9}$		SF		"	"
(normal waters)	$25-100 \times 10^{-9}$		SF		"	"
(badly polluted waters)	$0.10-1.30 \times 10^{-6}$		E.D2		"	137
(carcinogenic)	* $3.0 \times 10^{-6}$		E.D3		"	"
"	* $0.1-37.9 \times 10^{-6}$		E.D2		"	"
"	* $15.0 \times 10^{-6}$		E.D3		"	"
(carcinogenic)	* $0.5-87.5 \times 10^{-6}$		SF.R5		"	"
"	* $0.01-0.73 \times 10^{-6}$		SF.R70		"	"
"	* $0.04-1.30 \times 10^{-6}$		SF.R5		"	"
"	* $0.73-1.50 \times 10^{-6}$		SF.R70		"	"
"	* $0.12-3.1 \times 10^{-6}$		E.D1	1965-67	lc tlc	143
"	* $3.21-301.1 \times 10^{-6}$		E.D2	"	"	"
"	* $3.18-67.1 \times 10^{-6}$		E.D3	"	"	"
"	* $0.62-1.18 \times 10^{-6}$		E.D1	"	"	"
(carcinogenic)	* $0.14-134.2 \times 10^{-6}$		E.D2	"	"	"
"	* $0.25-31.5 \times 10^{-6}$		E.D3	"	"	"
"	* $0.12-0.34 \times 10^{-6}$		E.D1	1967-68	"	144
(ten PAH's)	* $1.5-145.4 \times 10^{-6}$		E.D2	"	"	"
"	* $1.7-20.7 \times 10^{-6}$		E.D3	"	"	"
"	* $0.91-2.56 \times 10^{-6}$		E.D1	"	"	"
(carcinogenic)	* $0.70-60.6 \times 10^{-6}$		E.D2	"	"	"
"	* $0.63-7.8 \times 10^{-6}$		E.D3	"	"	"
"	* $0.21-0.77 \times 10^{-6}$			"	"	"

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<u>AMINES AND DERIVATIVES</u>						
5-Acetylamino-6-amino-3-methyluracil	30-140 x 10 <sup>-6</sup>	EPA	E.D1		uv glc hplc	74
Acrylamide	16 x 10 <sup>-6</sup>	WRC	E.I2	1970	glc	26
	1.2 x 10 <sup>-6</sup>	"	SF/E.I2	"	"	"
	0.3 x 10 <sup>-6</sup>	"	"	"	"	"
	0.74-42.0x10 <sup>-6</sup>	"	E.I3	"	"	"
	0.47-1.2x10 <sup>-6</sup>	"	E.I5	"	"	"
	0.2-32.0x10 <sup>-6</sup>	"	E.I7	"	"	"
	0.1 x 10 <sup>-6</sup>	"	E.D5	"	"	"
	1.1 x 10 <sup>-3</sup>	"	E.D1	"	"	"
	0.28 x 10 <sup>-3</sup>	"	E.D3	"	"	"
Aminobenzoic acid			SF.R5		pc	72
Aminomethylpyridine			SF.L1 SF.L1 & T3	Sept. '73 1973	glc ms	10 123
o,m,p-Aminophenol			SF.R1	Aug. '72	tlc	
Amino sugars (as C)	0.5-1.8 x 10 <sup>-3</sup>	WRC	E.D1			80
2-Aminotoluene	* 1.0 x 10 <sup>-6</sup>	RID	SF.R5			
Aniline	8.0 x 10 <sup>-3</sup>	WRC	LF SF.R/E.I12, 16,21 E.I19 E.I12 SF.R17 SF.R5	1973	glc ms	27
	1.2-2.3x10 <sup>-3</sup>				glc	28
	16.5 x 10 <sup>-3</sup>				"	"
	* 9.8 x 10 <sup>-6</sup>	RIV		1972	glc ms	29

Substance (1)	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	
<i>o</i> -Anisidine			SF.R17	1972	glc ms 29
Benzidine	0.205 - 0.439 $\times 10^{-3}$		SF.R18/E. I21	Dec. '64	30
Bromo-diethylaniline			SF.R17	1972	glc ms 29
Butylbenzene sulphonamide *			T11		glc ms 135

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	
N-Butylphenylsulphonamide		KK	SF.R5	1970/71	gle ms 4
Cadaverine			SF.R5/E.D3		122
Chloroaniline		EPA	T SR.R17	Sept. '73 1972	gle ms 24 29
2-,3-, & 4-Chloroaniline	* 2.2, 1.5, & 1.5 x 10 <sup>-6</sup> respectively	RIV	SF.R5		
Chlorotoluidine			SF.R17	1972	gle ms 29
4,4'-Diamino-dicyclohexylmethane	0.4 x 10 <sup>-3</sup>	EPA	E.I18		2
Dibutylamine	<1.0 x 10 <sup>-3</sup>	EPA	E.I20		2
Dichloroaniline			SF.R17	1972	gle ms 29
Diethylamine	up to 1.0		E.D1/E.I4, 16 SF.R16,L5 SF.R5	1967	31 32
* N,N-Diethylformamide	<1.0 x 10 <sup>-3</sup>	EPA	E.I20 SB/LF		gle ms 2 147
* N,N-Dimethylformamide			E.I23		gle ms 146
Dimethylamine	up to 1.0		E.D1/E.I4, 16 SF.R16,L5	1967	31 32
Dimethylaniline	* 10 x 10 <sup>-6</sup>	RID	SF.R5		
* 1.0 x 10 <sup>-6</sup>		RID	SF.R39		
* N,N'-Dimethylaniline	4.0 x 10 <sup>-6</sup> m		SF.R5		141
* Diphenylamine	1.0 x 10 <sup>-6</sup>	RID	SF.R5		
Ethylamine	up to 1.0		E.D1/E.I4, 16 SF.R16,L5 T10	1967	31 32 134
* Ethyl carbamate		EPA	E.I5		2

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References	
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation		
EDTA	*	0.19-0.22x10 <sup>-6</sup>	WRC	E.D2	1973/74	glc	
	*	up to 1.2x10 <sup>-3</sup>	"	E.D3	1974	"	
	*	up to 1.12x10 <sup>-3</sup>	"	SF.R4	"	"	
		0.1-0.2x10 <sup>-3</sup>	WRC	E.D3b	1973	glc	
		530-550x10 <sup>-6</sup>	"	E.D3a	May '74	glc	
		740 x 10 <sup>-6</sup>	"	E.D4	"	"	
		190 x 10 <sup>-6</sup>	"	SF.R4/ E.D4	"	"	
	*	0.05-0.17x10 <sup>-3</sup>		E.D1		"	145
	0.06-0.18x10 <sup>-3</sup>		E.D3		"	"	
N-(Ethylphenyl)acetamide			KK	SF.R5	1970/71	glc ms	4
N-Ethyltoluidine			KK	SF.R5	Nov. '71	glc ms	4
Hexylaniline				SF.R5		glc ms	23
Hydroxybenzamide				SF.R5		pc	72
p-Isopropyl diphenylamine	*	1.0 x 10 <sup>-6</sup>	RID	SF.R5			
Methylamine		up to 1000		E.D1/E. I4, 16 SF.R16, L5	1967		31
							32
2-Methylaniline		0.4-0.8x10 <sup>-3</sup> 1.9 x 10 <sup>-3</sup>		E.I19 E.I12		glc "	28 "
3-Methylaniline		0.6-1.2x10 <sup>-3</sup> 4.4 x 10 <sup>-3</sup>		E.I19 E.I12		glc "	28 "
4-Methylaniline		0.6-0.7x10 <sup>-3</sup> 2.0 x 10 <sup>-3</sup>		E.I19 E.I12		glc "	28 "
p-Methyl-N-butylbenzamide			KK	SF.R5	1970/71	glc ms	4
N-Methyl-2-pyridone-5-carboxamide		10-20 x 10 <sup>-6</sup>	EPA	E.D1		uv glc hplc ]	74
N-Methyl-4-pyridone-3-carboxamide		10 x 10 <sup>-6</sup>	EPA	E.D1		uv glc hplc	74
Methyltoluidine				SF.R17	1972	glc ms	29
Nitroaniline				SF.R17	1972	glc ms	29

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences	
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation		
Nitrotoluidine			SF.R17	1972	glo ns	29	
Naphthylamine and benzidine	0.275 - 0.387 x 10 <sup>-3</sup>		SF.R18/E. I21	1964		30	
NTA	0.1-0.34x10 <sup>-3</sup>		E.D1	Nov & Dec	le glo ns	33	
	1.8-1.9x10 <sup>-3</sup>		"		"	"	
	4.0-5.3x10 <sup>-3</sup>		E.D2		"	"	"
	0.17-1.1x10 <sup>-3</sup>		E.D3		"	"	"
	0.36-1.56x10 <sup>-3</sup>		E.D4		"	"	"
	1.1 x 10 <sup>-3</sup> 0.20 x 10 <sup>-3</sup>		E.D1 E.D3			glo "	145 "
Pentylaniline			SF.R5		glo ns	23	
N-Phenylphthalimide		WRC	LF		glo ns		
Picrolam, (4-amino-3,5,6-trichloropicolinic acid)	0.4-0.8x10 <sup>-3</sup> <5 x 10 <sup>-6</sup> }		LR.1 LR.1 (1 month later)			69 "	
Propylamine *			T10		glo ns	134	
Propylaniline			SF.R5		glo ns	23	
Putrescine			SF.R5/E.D3			122	
Rhodamine B			E.D1/E.I	1971/72	tle	24	
p-Toluenesulphonamide *	1 x 10 <sup>-3</sup>	EPA	SB/LF		glo ns	147	
Toluidine		KK	SF.R5 SF.R17	Nov. '71 1972	glo ns "	4 29	
o-Toluidine *	2.0 x 10 <sup>-6</sup>		SF.R5 SF.R5		"	23 141	
Total amides (as O)	1.2-1.5 x 10 <sup>-3</sup>	WRC	E.D1.			80	
Total volatile amines (as N)	6-100 x 10 <sup>-6</sup>		SF.R16,L5			32	

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Tributylamine			SF.R17	1972	gls	29
Triethylamine			SF.R16,L5 E.I23		gls	32 146
Triethyl urea	$6.4 \times 10^{-3}$	EPA	E.I20			2
Trimethylamine			SF.R16,L5			32
Urea	$20 \times 10^{-6}$ up to $22.1 \times 10^{-3}$	WRC	E.D3b E.D1	Jan. '73 1968	hpls	34

Reference	Concentration (g/l-water) (mg/Kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
<b><u>CYANIDES AND AZO COMPOUNDS</u></b>					
Acrylonitrile	0.1	EPA "	E.I22 SF.R11/E.I22 ]		glo ms " 2 20
Adiponitrile	0.32	EPA	E.I18		glo ms 2
Azobenzene		KK	SF.R5	1970/71	glo ms 4
Azoxybenzene		KK	SF.R5	1970/71	glo ms 4
Copper phthalocyanide		EPA	E.D1/I15	Apr. '72	c ms ssms 24
Dichloroazobenzene *		KK	SF.R5		glo ms 148
Dichlorobenzonitrile		KK	SF.R5	1970/71	glo ms 4
2,6-Dichlorobenzonitrile *	8.82 x 10 <sup>-6</sup>	KK	SF.LR1 SF.R5		glo ms 35 148
Dicyanobenzene		KK	SF.R5	1970/71	glo ms 4
Isocyanic acid		EPA	T1		36
Methylcyanobenzene *	1.0 x 10 <sup>-6</sup>	RID	T6		
Phthalic acid dinitrile		KK	SF.R5	1970/71	glo ms 4



Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<u>NITRO AND NITROSO COMPOUNDS</u>						
Chlorodinitrobenzene		KK	SF.R5	1970/71	glc ms	4, 148
Chloronitrobenzene		KK EPA	SF.R5 T1 SF.R17	1970/71 1972	glc ms glc ms	4 36 29
1-Chloro-3-nitrobenzene		RID	SF.R5			
*	$10 \times 10^{-6}$	"	T6			
*	$0.2 \times 10^{-6}$					
Chloronitrotoluene		KK	SF.R5 SF.R17	1970/71 1972	glc ms "	4 29
3,4-Dichloroaniline		RIV	SF.R5			
*	$2.9 \times 10^{-6}$					
Dichloronitrobenzene		KK	SF.R5	1970/71	glc ms	4, 148
Dichloronitrotoluene		KK	SF.R5	1970/71	glc ms	4, 148
Dimethylnitrobenzoic acid		KK	SF.R5		glc ms	148
*						
Dinitrobenzene		KK	SF.R5 "	1970/71	glc ms "	4, 148 23
4,6-Dinitro-o-cresol		EPA	E.I23		glc ms	2
18 x 10 <sup>-3</sup>						
2,4-Dinitromethylbenzene			SF.R5		glc ms	23
*						
2,6-Dinitromethylbenzene			SF.R5		glc ms	23
*						
2,4-Dinitrotoluene		EPA	E.I24		glc ms	2
0.19						
2,6-Dinitrotoluene		EPA	E.I24		glc ms	2
0.15		"	E.D4/I24		"	"
$0.02 \times 10^{-3}$		"	T1			36
		KK	SF.R5	1970/71	glc ms	4
$3.0 \times 10^{-6}$		R10	"			142

Substance (1)	Concentration ( $\mu$ /l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
3,4-Dinitrotoluene	$40 \times 10^{-3}$	EPA	E.I24		glc ms	2
1-Methyl-2-chloro-4-nitrobenzene		KK	SF.R5		glc ms	148
Methyl nitrobenzoic acid		KK	SF.R5		glc ms	148
Methylnitroquinoline			SF.R17	1972	glc ms	29
o-Nitroanisole		KK	SF.R5	1970/71	glc ms	4
Nitrobenzene		KK	SF.R5 SF.R17	1970/71 1972	glc ms "	4, 148 29
	$0.11 \times 10^{-3}$	EPA	E.I23			2
	$20 \times 10^{-6}$	"	T1			36
		RID	SF.R5			142
Nitrobenzoic acid		KK	SF.R5	1970/71	glc ms	4
p-Nitrobenzoic acid *		KK	SF.R5		glc ms	148
3-Nitrobenzotrifluoride *		KK	SF.R5		glc ms	148
Nitrobiphenyl *		KK	SF.R5	1970/71	glc ms	4
2-Nitrobiphenyl *		KK	SF.R5		glc ms	148
o-Nitrochlorobenzene	$37 \times 10^{-6}$ $1-2 \times 10^{-6}$ up to $21 \times 10^{-6}$		SF.R19/E.I SF.R19/E.I19] SF.R19 SF.R5		glc ms	37 " 38 23
p-Nitrochlorobenzene			SF.R5		glc ms	23
Nitrochlorotoluene			SF.R5		glc ms	23

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
p-Nitrochlorobenzene * *	20 x 10 <sup>-6</sup> 10 x 10 <sup>-6</sup>	RID "	SF.R5 T6			142
Nitroresol		KK	SF.R5	1970/71	glo ms	4
2-Nitro-p-cresol	9.3 x 10 <sup>-3</sup>	EPA	E.D4/I23		glo ms	2
2-Nitro-m-dimethylbenzene		KK	SF.R5		glo ms	148
Nitrodimethylphenol *		KK	SF.R5		glo ms	148
Nitroethoxybenzene *		KK	SF.R5	1970/71	glo ms	4
o-Nitroethoxybenzene		KK	SF.R5		glo ms	148
o-Nitromethoxybenzene *		KK	SF.R5		glo ms	148
2-Nitromethylbenzene *			SF.R5		glo ms	23
Nitromethylphenol *		KK	SF.R5		glo ms	148
Nitronaphthalene		KK	SF.R5 SF.R17	1970/71 1972	glo ms "	4 29
1-Nitronaphthalene		KK	SF.R5		glo ms	148
Nitrophenol			SF.R5/E.I			122
o-Nitrophenol * *	1.4 x 10 <sup>-3</sup> 1.3 x 10 <sup>-6</sup>	EPA RID	ED4/I23 SF.R40		glo ms	2
Nitrophenyl phenyl ether *		KK	SF.R5		glo ms	148
Nitropropylbenzene			SF.R5		glo ms	23
Nitrotoluene		KK	SF.R5	1970/71	glo ms	4

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
o-Nitrotoluene	0.15-7.8x10 <sup>-3</sup> 12 x 10 <sup>-6</sup>	EPA	E.D4/E.I5	1972	glo ms	2
		"	E.I24		"	"
		"	E.D4/I24		"	"
		"	SF.R11		"	20
	3.1-16.0x10 <sup>-6</sup>	"	SF.R17		"	29
		"	SF.R5		"	23
* * 20 x 10 <sup>-6</sup> 1.0 x 10 <sup>-6</sup>	RID	"			142	
"	"	T6			"	
m-Nitrotoluene		EPA	E.I24		glo ms	2
		"	SR.R11		"	20
p-Nitrotoluene	0.04 x 10 <sup>-3</sup> 8.8 x 10 <sup>-3</sup>	EPA	EI.23		glo ms	2
		"	EI.24		"	"
		"	SF.R11		"	20
	"	SF.R5	"		23	
* 1.0 x 10 <sup>-6</sup>	RID	T6				
Nitroxylene		KK	SF.R5	Nov. '71 1972	glo ms	4
			SF.R17		"	29
Nitro-p-xylene			SF.R5		glo ms	23
2-Nitro-m-xylene		KK	SF.R5	1970/71	glo ms	4
Nitroxyleneol		KK	SF.R5	1970/71	glo ms	4
2-Nitro-m-xylol		KK	SF.R5	1970/71	glo ms	4
Trichloronitrobenzene *		KK	SF.R5		glo ms	148
2,4,6-Trinitrotoluene	0.7 x 10 <sup>-3</sup>	EPA	E.I24		glo.ms	2

Substance (1)	Concentration (g/l-water) (mg/kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<b>ORGANO PHOSPHORUS COMPOUNDS</b>						
Carbophenothion	up to $8 \times 10^{-6}$	WRC	SF.R2		glo	
DEF, (S, S, S, Tributylphosphorothioate)			E.I23	1966		39
Diazinon	up to $16 \times 10^{-9}$	WRC EPA	SF.R2 SF.R45	1968	glo glo ms tlc	20
Malathion	up to $0.3 \times 10^{-6}$	WRC EPA	SF.R2 SF.R45	1969/70	glo glo ms	20
Ronnell (troleme)	$0.2 \times 10^{-3}$	EPA	RF			40
Tributyl phosphate		KK	SF.R5	1972	glo ms	4, 148
Tri-n-butyl phosphate *	$1.7 \times 10^{-6}$	EPA	SB/LF SF.L1 SF.L1,T3, SB6	1973	glo ms glo ms	147 10 123
Triethyl phosphate * *	$0.3 \times 10^{-6}$	EPA "	E.I17 SB/LF E.D3		glo ms " "	24 147 133
Triphenylphosphin oxide *		KK	SF.R5	1974	glo ms	
Triphenylphosphate *	$0.12 \times 10^{-6}$	EPA	T1			
Tris-(2-chloroethyl) phosphate		KK	SF.R5	1972	glo ms	4
Tris-(2-ethylhexyl) phosphate		KK	SF.R5	1972	glo ms	4

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<b><u>ORGANO HALOGENS</u></b>						
<b>Aldrin</b>						
	6 x 10 <sup>-9</sup>		SF.R22	1964		41
	3 x 10 <sup>-9</sup>		SF.R20	1959		"
	2 x 10 <sup>-9</sup>		SF.R23	1962		"
	<1 x 10 <sup>-9</sup>		SF.R24	1958-65		"
	<1 x 10 <sup>-9</sup>		SF.R25	1961		"
	<1 x 10 <sup>-9</sup>		SF.R26	1958		"
	<1 x 10 <sup>-9</sup>		SF.R27	1964		"
	0.26 x 10 <sup>-6</sup>		SF.R28	"		42
	>0.11 x 10 <sup>-6</sup>		SF.R	1964-66		"
	0.02 x 10 <sup>-6</sup>		SF.R29	May '68		43
	0.01-0.04x10 <sup>-6</sup>		SF.R30	1967		"
	0.02 x 10 <sup>-6</sup>		SF.R31	June '67		"
	0.02 x 10 <sup>-6</sup>		SF.R21	Feb. '67		"
	0.01 x 10 <sup>-6</sup>		SF.R32	"		"
	0.01 x 10 <sup>-6</sup>		SF.R26	Oct. '66		"
	0.01 x 10 <sup>-6</sup>		SF.R20	Feb. '67		"
	0.01 x 10 <sup>-6</sup>		SF.R33	"		"
	1 x 10 <sup>-6</sup>		SF.R20			44
	85 x 10 <sup>-9</sup>		SF.R21	1964		45
	1 x 10 <sup>-6</sup>		SF.R20	"		46
	5 x 10 <sup>-9</sup>		SF.R	1966		
	4 x 10 <sup>-9</sup>	WRC	SF.R3		glo	21
		EPA	E.I10		glo ms	2
	<0.01	RIV	SF.R5	1969-72	glo	126
	* 0.15 x 10 <sup>-6</sup>	RIV	SF.R5			
	* <0.01 x 10 <sup>-6</sup>		T6			
<b>Aroclor 1242</b>						
	* 0.1-2.2	EPA	S.F-SF.L6]	1971	glo	158
	* ND-553x10 <sup>-3</sup>	"	S.SD-	"	"	"
	* ND-1.81x10 <sup>-3</sup>	"	SF.L6	1971-72	"	"
	* ND-4.02x10 <sup>-3</sup>	"	SF.R60	"	"	"
			E.D3			
<b>Aroclor 1254</b>						
	* 0.1-3.3	EPA	S.F-SF.L6]	1971-72	glo	158
	* 1.54-232x10 <sup>-3</sup>	"	S.SD-	1971	"	"
			SF.L6			

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
Aroclor 1254 (contd)	* 61-841 x 10 <sup>-6</sup> * 97-568 x 10 <sup>-6</sup>	EPA "	SF.R60 E.D3	1971-72 "	glc "	158 "
Aroclor 1260		EPA	E.I10		glc ms	48
Benzene hexachloride (BHC)	4 x 10 <sup>-9</sup> 34 x 10 <sup>-9</sup> 8 x 10 <sup>-9</sup> 13 x 10 <sup>-9</sup> 2-56 x 10 <sup>-9</sup> 11 & 12 x 10 <sup>-9</sup> 23 x 10 <sup>-9</sup> 6 x 10 <sup>-9</sup> 4 x 10 <sup>-9</sup> 2 x 10 <sup>-9</sup> 22 x 10 <sup>-9</sup> 11 x 10 <sup>-9</sup> 4 x 10 <sup>-9</sup> 3 x 10 <sup>-9</sup> <1 x 10 <sup>-9</sup> up to 0.75 x 10 <sup>-6</sup> * 0.05 x 10 <sup>-6</sup> * 0.81 x 10 <sup>-6</sup> * 0.04 x 10 <sup>-6</sup> * 0.11 x 10 <sup>-6</sup> * 0.19 x 10 <sup>-6</sup>		SF.R34 SF.R28 SF.R23 SF.R35 SF.R36 SF.R19 SF.R31 SF.R21 SF.R22 SF.R36 SF.R38 SF.R32 SF.R22 SF.R29 SF.R24 T/LR1 E.D3 SF.R5 SF.R39 T6 "	Sept. '66 " " " " " " " 1965 " " " 1958-64 " "	glc "	49 " " " " " " " 45 " " " " " 50 "
α-BHC	<0.01-0.48 x 10 <sup>-6</sup> 0.01 x 10 <sup>-6</sup> 0.15 x 10 <sup>-6</sup>	RIV " "	SF.R5 SF.R68 SF.R5	1969-72 " "	glc " "	126 " "

Reference	Concentration ( $\mu$ /l-waters) (mg/Kg-solid samples)	Notes (see Key)				Refer- ences
		Labora- tory	Type of sample	Date of sampling	Analysis and/or Estimation	
$\alpha$ -BHC (contd.)	5-54 x 10 <sup>-6</sup>	WRC	SF.R3	1965/66	glo	21
	1.63 x 10 <sup>-6</sup>	"	SF.RL7	Nov '66	"	"
	up to 10 x 10 <sup>-6</sup>	"	SF.RU7	"	"	"
	~7 x 10 <sup>-6</sup>	"	E.D1	1966	glo	51
	~0.7 x 10 <sup>-6</sup>	"	E.D2	"	"	"
	~0.4 x 10 <sup>-6</sup>	"	E.D3b	"	"	"
	~130 x 10 <sup>-6</sup>	"	S.SS	"	"	"
	~40 x 10 <sup>-6</sup>	"	S.H	"	"	"
	1-16 x 10 <sup>-6</sup>	"	SF.R47	"	"	"
	61-430 x 10 <sup>-6</sup>	"	SF.R48	"	"	"
	13-379 x 10 <sup>-6</sup>	"	SF.R49	"	"	"
	543 x 10 <sup>-6</sup>	"	SF.R48	Feb '68	"	"
	70 x 10 <sup>-6</sup>	"	SF.R49	"	"	"
	1-4 x 10 <sup>-6</sup>	"	SF.R50	1968	"	"
	1-4 x 10 <sup>-6</sup>	"	SF.R51	"	"	"
	1-6 x 10 <sup>-6</sup>	"	SF.R52	"	"	"
	1-16 x 10 <sup>-6</sup>	"	SF.R53	"	"	"
1-6 x 10 <sup>-6</sup>	"	SF.R54	"	"	"	
1-8 x 10 <sup>-6</sup>	"	SF.R55	"	"	"	
$\gamma$ -BHC (Lindane)	9-113 x 10 <sup>-6</sup>	WRC	SF.R3	Nov '66	glo	21
	10-140 x 10 <sup>-6</sup>	"	SF.RL7	"	"	"
	up to 10 x 10 <sup>-6</sup>	"	SF.RU7	"	"	"
	50 x 10 <sup>-6</sup>	"	E.D3 b	June '71	"	"
	5 x 10 <sup>-6</sup>	"	SF.R29	65/66	"	52
	5-10 x 10 <sup>-6</sup>	"	SF.R37	"	"	"
	5 x 10 <sup>-6</sup>	"	SF.R30	1966	"	"
	5-20 x 10 <sup>-6</sup>	"	SF.R21	"	"	"
	5-10 x 10 <sup>-6</sup>	"	SF.R31	65/66	"	"
	5 x 10 <sup>-6</sup>	"	SF.R32	1966	"	"
	5-10 x 10 <sup>-6</sup>	"	SF.R26	"	"	"
	5 x 10 <sup>-6</sup>	"	SF.R20	Apr. '66	"	"
	5-20 x 10 <sup>-6</sup>	"	SF.R33	1966	"	"
	10 x 10 <sup>-6</sup>	"	SF.R37	July '68	"	43
	10 & 20 x 10 <sup>-6</sup>	"	SF.R30	1967	"	"
	10 x 10 <sup>-6</sup>	"	SF.R31	June '67	"	"
	10 x 10 <sup>-6</sup>	"	SF.R26	Oct '66	"	"
	0.01-0.3 x 10 <sup>-6</sup>	SETUDE	SF.RL	Apr. '74	glo	"
	<0.01-0.34 x 10 <sup>-6</sup>	RIV	SF.R5	1969-72	"	126
	0.02 x 10 <sup>-6</sup>	"	SF.R68	"	"	"
0.10 x 10 <sup>-6</sup>	"	SF.R5	"	"	"	
* <0.1	HPA	S.F-SF.L6	1971	"	158	
* ND-0.15 x 10 <sup>-3</sup>	"	S.SD-SF.L6]	"	"	"	



Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
Y-BHC (contd)	18-390x10 <sup>-9</sup>	WRC	E.D3		glc	51
	130 x 10 <sup>-9</sup>	"	E.D4		"	"
	9-330 x 10 <sup>-9</sup>	"	SF.R4	1966	"	"
	56-1430 x 10 <sup>-9</sup>	"	E.D3b	Mar. '66	"	"
	~13 x 10 <sup>-6</sup>	"	E.D1	1966	"	"
	~3 x 10 <sup>-6</sup>	"	E.D2	"	"	"
	~1 x 10 <sup>-6</sup>	"	E.D3b	"	"	"
	~300 x 10 <sup>-6</sup>	"	S.SS	"	"	"
	~100 x 10 <sup>-6</sup>	"	S.H	"	"	"
	12-40 x 10 <sup>-9</sup>	"	SF.R47	"	"	"
	34-126 x 10 <sup>-9</sup>	"	SF.R48	"	"	"
	6-108 x 10 <sup>-9</sup>	"	SF.R49	"	"	"
	622 x 10 <sup>-9</sup>	"	SF.R48	Feb. '68	"	"
	197 x 10 <sup>-9</sup>	"	SF.R49	"	"	"
	4-24 x 10 <sup>-9</sup>	"	SF.R50	1968	"	"
	9-38 x 10 <sup>-9</sup>	"	SF.R51	"	"	"
	4-20 x 10 <sup>-9</sup>	"	SF.R52	"	"	"
10-50 x 10 <sup>-9</sup>	"	SF.R53	"	"	"	
7-30 x 10 <sup>-9</sup>	"	SF.R54	"	"	"	
8-98 x 10 <sup>-9</sup>	"	SF.R55	"	"	"	
Bromobenzene		EPA	T1			36
Bromochlorobenzene		EPA	T1			36
Bromodichloromethane		EPA	T/SF.R36]		ms	47
*	1.1-20.8x10 <sup>-6</sup>	"	T7		glc ms	150
*			T1		"	156
Bromoform		EPA	T1			36
*	4 x 10 <sup>-3</sup>	RIV	E.D23			
*	0.57 x 10 <sup>-6</sup>	EPA	T1			
*	10 x 10 <sup>-6</sup>		T6			149
*	0.05 x 10 <sup>-6</sup>		T10		glc ms	134
		EPA	T/SF.R36]		"	47
Bromophenyl phenylether		EPA	T1			36
Butyl bromide			T10		glc ms	134

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
t-Butyl-1,2,-dichlorobenzene	* $1.0 \times 10^{-6}$	RID	SF.R67		
Carbon tetrachloride	* $5 \times 10^{-9}$		SF.L1, T3,SB6 T10 T1	1973	glc ms " "
Chlordane	$0.5 \times 10^{-3}$ $75 \times 10^{-9}$ $6 \times 10^{-9}$		RF SF.R23 SF.R32	Sept. '66 "	40 49 "
	* $0.0-670 \times 10^{-3}$	EPA "	E.I10 S.F-E.I6] S.SD- SF.R72	1972	glc ms " "
Chlordene		EPA	E.I10		glc ms 48
Chloroalkyl acetate	*		E.D6		glc ms 152
Chlorobenzene	$5.5 \times 10^{-6}$	EPA GEN	T1 SF.R SF.R5/E.I]	1972	glc ms 36 53 122
	* $5.0 \times 10^{-6}$	EAWAG RID	E.D3 SF.R5	Apr. '74	glc ms 124
	* $1.0 \times 10^{-6}$	" EAWAG	T6 T3,SB6, SF.R69		glc ms 136
		EAWAG	SF.L SF.L1	1972	10 24
	* $1 \times 10^{-6}$	EPA	T T10		glc ms " 134
2-Chlorobenzoic acid	$0.25 \times 10^{-3}$ $0.26 \times 10^{-6}$	EPA "	E.I23 E.D6		glc 2 157
3-Chlorobenzoic acid	$0.62 \times 10^{-6}$	EPA	E.D6		glc 157

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
4-Chlorobenzoic acid	$1.1 \times 10^{-6}$	EPA	E.D6		glc	157
Chlorobenzophenone *		KK	SF.R5		glc ms	148
Chlorobiphenyl *		KK	SF.R5		glc ms	148
8-Chlorocaffeine	$1.7 \times 10^{-6}$	EPA	E.D6		glc	157
4-Chlorocresol		CEN	SF.R <sub>1</sub>	1972	glc ms	
Chlorocumene *			E.D6		glc ms	152
Chlorocyclohexane *	$20 \times 10^{-6}$		E.D6		glc ms	152
Chlorodibromomethane		EPA	T/SF.R36]		ms	47
Chlorodimethoxybenzene		KK	SF.R5	1970/71	glc ms	4, 148
1,2-Bis(chloroethoxy)ethane *			SF.R71		glc ms	135
Bis(2-chloroethoxy)ether *	$140 \times 10^{-3}$	EPA	E.I16 SF.R71		glc ms "	2 135
Chloroethylbenzene *	$21 \times 10^{-6}$		E.D6		glc ms	152
Bis(2-chloroethyl)ether	$0.16 \times 10^{-3}$ $41 \times 10^{-6}$	EPA	E.I16 SF.R10			25

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Bis(2-chloroethyl)ether (contd)		EPA	T/SF.R36]		glc ms	47
		"	SF.R19			36
		"	T1			"
*		KK	SB.2	1975	glc ms	
*	0.16 x 10 <sup>-6</sup>	EPA	T1			
Chloroethyl ether		EPA	T1			36
Chloroform		EPA	T1			36
	0.91 x 10 <sup>-3</sup>		T2		glc ms	9
*	1.7-152.0x10 <sup>-6</sup>	EPA	T7		glc ms	150
*	9.3 x 10 <sup>-6</sup>	"	E.D1		"	"
*	7.1 x 10 <sup>-6</sup>	"	E.D3		"	"
*	12.1 x 10 <sup>-6</sup>	"	E.D6		"	"
*			"		"	152
*			T1		"	156
*	133 x 10 <sup>-6</sup>	EPA	"			
*	50 x 10 <sup>-6</sup>		T6			149
6-Chloroguanine	0.9 x 10 <sup>-6</sup>	EPA	E.D6		glc	157
3-Chloro-4-hydroxybenzoic acid	1.3 x 10 <sup>-6</sup>	EPA	E.D6		glc	157
Chlorohydroxybenzophenone		EPA	T/SF.R36]		ms	47
bis-Chloro-isopropyl ether		RID	SF.R5			
*	25 x 10 <sup>-6</sup>		SF.R39			141
*	5 x 10 <sup>-6</sup>	EPA	T1			
*	0.18 x 10 <sup>-6</sup>	RID	T6			
*	0.20 x 10 <sup>-6</sup>					
4-Chloromandelic acid	1.1 x 10 <sup>-6</sup>	EPA	E.D6		glc	157
Chloromethoxy pentachlorobenzene		KK	SF.R5	1970/71	glc ms	4,148
Chloro- $\alpha$ -methyl benzyl alcohol			E.D6		glc ms	152

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
3-Chloro-2-methylbut-1-ene *	286 x 10 <sup>-6</sup>		E.D6		glc ms	152
2-Chloro-1-methylethyl ether			SF.R5		glc ms	23
4-Chloro-3-methylphenol	1.5 x 10 <sup>-6</sup>	EPA	E.D6		glc	157
1-Chloro-2-naphthol *		KK	SF.R5		glc ms	148
Chloromethylphenoxyacetic acid	1 x 10 <sup>-3</sup>	WRC	E.I4	1973	glc ms	
Chloromethylquinoline *		KK	SF.R5		glc ms	148
Chloronaphthalenes *	55 x 10 <sup>-3</sup>		S.SD-SF.R72]	1972	glc ms	155
Chloro-β-naphthol		KK	SF.R5		glc ms	4
2-Chlorophenol *	1.7 x 10 <sup>-6</sup> 1.0&2.2x10 <sup>-6</sup>	EPA RID	E.D6 T6		glc	157
3-Chlorophenol	0.51 x 10 <sup>-6</sup>	EPA	E.D6		glc	157
4-Chlorophenol	0.69 x 10 <sup>-6</sup>	EPA	E.D6		glo	157
2-(4-Chlorophenoxy)-2-methylpropionic acid	1.0 x 10 <sup>-6</sup>	EPA	E.D3a		glc ms	
4-Chlorophenylacetic acid	0.38 x 10 <sup>-6</sup>	EPA	E.D6		glc	157

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Chlorophenylmethyl sulphone *		KK	SF.R5		glc ms 148
Chlorophenylethyl sulphone *		KK	SF.R5		glc ms 148
1-Chloropropene *			T1		glc ms 156
* bis-(Chloroisopropyl)ether *		KK	SF.R5		glc ms 156
3-Chloropropylether *	$1.0 \times 10^{-6}$	RID	SF.R5		glc ms 148
Chloropyridine		EPA	T1		36
4-Chlororesorcinol	$1.2 \times 10^{-6}$	EPA	E.D6		glc 157
5-Chlorosalicylic acid	$0.24 \times 10^{-6}$	EPA	E.D6		glc 157
Chlorotoluene *		EAWAG	SF.R69 SF.R5		glc ms " 136 23
o-Chlorotoluene *	$20 \times 10^{-6}$	RID	SF.R5		142
p-Chlorotoluene *	$2.4 \times 10^{-6}$		SF.R5		141
5-Chlorouracil	$4.3 \times 10^{-6}$	EPA	E.D6		glc 157
5-Chlorouridine	$1.7 \times 10^{-6}$	EPA	E.D6		glc 157
8-Chloroxanthine	$1.5 \times 10^{-6}$	EPA	E.D6		glc 157

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
DDD (TDE)	5-10 x 10 <sup>-9</sup>		SF.R37	1966	52	
	5-10 x 10 <sup>-9</sup>		SF.R30	"	"	
	5-15 x 10 <sup>-9</sup>		SF.R31	1965-66	"	
	10 x 10 <sup>-9</sup>		SF.R32	Aug '66	"	
	5-10 x 10 <sup>-9</sup>		SF.R26	1966	"	
	6-12 x 10 <sup>-9</sup>		SF.R19	1958-66	41, 49	
	9 x 10 <sup>-9</sup>		SF.R20	Sept '66	41	
	10-40 x 10 <sup>-9</sup>		SF.R21	1967-68	43	
	8-11 x 10 <sup>-9</sup>		SF.R22	1955-65	41	
	11-12 x 10 <sup>-9</sup>		SF.R23	1965-66	41, 49	
	4-31 x 10 <sup>-9</sup>		SF.R24	1955-65	"	
	7 x 10 <sup>-9</sup>		SF.R25	"	"	
	10-20 x 10 <sup>-9</sup>		SF.R26	1967-68	43	
	5 x 10 <sup>-9</sup>		SF.R27	Sept '55	41	
	5-6 x 10 <sup>-9</sup>		SF.R28	Sept '66	49	
	3-11 x 10 <sup>-9</sup>		SF.R29	1955-66	41, 49	
	10-30 x 10 <sup>-9</sup>		SF.R30	1967-68	43	
	2-26 x 10 <sup>-9</sup>		SF.R31	1955-67	41, 43, 49	
	6-9 x 10 <sup>-9</sup>		SF.R32	1958-66	"	
	10 x 10 <sup>-9</sup>		SF.R33	1966-68	43	
	13 x 10 <sup>-9</sup>		SF.R34	Sept '66	49	
	3-4 x 10 <sup>-9</sup>		SF.R36	1955-66	41, 49	
	5-12 x 10 <sup>-9</sup>		SF.R37	1966-67	43, 49	
	8 x 10 <sup>-9</sup>		SF.R38	1958-65	41	
	7-12 x 10 <sup>-9</sup>		SF.R41	1955-66	41, 49	
	3-5 x 10 <sup>-9</sup>		SF.R42	"	"	
	5 x 10 <sup>-9</sup>		SF.R10	Sept '66	49	
	5 x 10 <sup>-9</sup>		SF.L3	"	"	
	<10-230 x 10 <sup>-9</sup>	WRC	E.D3		glc	51
	ND	"	E.D4		"	"
	ND	"	SF.R4	1966	"	"
	up to 0.32x10 <sup>-6</sup>	"	E.D3b	Mar '66	"	"
	~0.2 x 10 <sup>-6</sup>	"	E.D1	1966	"	"
	0.2 x 10 <sup>-6</sup>	"	E.D2	"	"	"
	0.05 x 10 <sup>-6</sup>	"	E.D3b	"	"	"
	200 x 10 <sup>-6</sup>	"	S.SS	"	"	"
	~180 x 10 <sup>-6</sup>	"	S.H	"	"	"
	8-108 x 10 <sup>-9</sup>	"	SF.R47	1966	"	"
	<8-171 x 10 <sup>-9</sup>	"	SF.R48	"	"	"
	<8-158 x 10 <sup>-9</sup>	"	SF.R49	"	"	"
	63 x 10 <sup>-9</sup>	"	SF.R48	Feb. '68	"	"
	70 x 10 <sup>-9</sup>	"	SF.R49	"	"	"
	up to 5x10 <sup>-9</sup>	"	SF.R50	1968	"	"
	"	"	SF.R51	"	"	"
	"	"	SF.R52	"	"	"
	ND	"	SF.R53	"	"	"
	up to 5x10 <sup>-9</sup>	"	SF.R54	"	"	"
ND	"	SF.R55	"	"	"	
.01-.03x10 <sup>-6</sup>		E.D3		"	54	
.06-.08 x 10 <sup>-6</sup>		E.D3/I6		"	"	
.03-.5 x 10 <sup>-6</sup>		E.D3/I6, 25		"	"	

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
DDD (TDE)(contd)	* 0.02 x 10 <sup>-6</sup>	RID & RIV	SF.R5		
	* 0.0-160x10 <sup>-3</sup>		S.SD-SF.R72]	1972	glc ms
	* 0.1-0.5	EPA	S.F-SF.L6]	1970	glc
o,p'-DDD	* ND - 0.2	EPA	S.F-SF.L6]	1971-72	glc
	* ND-62 x 10 <sup>-3</sup>	"	S.SD-SF.L6]		"
	* ND-2.5 x 10 <sup>-6</sup>	"	SF.R60	1970-71	"
	* ND-5.8 x 10 <sup>-6</sup>	"	E.D3	1971-72	"
p,p'-DDD	* 0.01-353x10 <sup>-3</sup>	EPA	S.SD-SF.L6]	1970-72	glc
	<0.02-0.03x10 <sup>-3</sup>	RIV	SF.R5	1969-72	"
	* <0.1 - 0.5	EPA	S.F-SF.L6]	1971-72	"
o,p'-DDE	* <0.1 - 0.3	EPA	S.F-SF.L6]	1970-72	glc
	* ND - 17.0	"	S.SD-SF.L6]		"
	* ND	"	SF.R60	1971-72	"
	* ND-7.5 x 10 <sup>-6</sup>	"	E.D3	"	"
p,p'-DDE	* 0.14-67.3x10 <sup>-3</sup>	EPA	S.SD-SF.L6]	1970-71	glc
	<0.01-0.12 x 10 <sup>-6</sup>	RIV	SF.R5	1969-72	"
	* 0.02 x 10 <sup>-6</sup>	RID&RIV	"		
	* 0.02 x 10 <sup>-6</sup>		T6		
	* <0.1 - 2.0	EPA	S.F.-E.D6]		glc ms
		"	S.F-SF.L6]	1970-72	
	* 0.6-20.3x10 <sup>-6</sup>	"	SF.R60	"	glc
	* 0.3-42.6x10 <sup>-6</sup>	"	E.D3	"	"
	* <0.3 x 10 <sup>-6</sup>	"	SF.L6	1970	"



Substance	Concentration ( $\mu$ /l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
DDE	up to $5.5 \times 10^{-9}$	WRC KK	SF.R3	1965/66	glc	21
			SF.R5			4
	$4-11 \times 10^{-9}$		SF.R19	1958-65		45, 49
	$5 \times 10^{-9}$		SF.R20	Sept '64		45
	$4-20 \times 10^{-9}$		SF.R21	1964-68		43, 45, 52
	$4 \times 10^{-9}$		SF.R22	Sept '64		45
	"		SF.R24	"		"
	$10-30 \times 10^{-9}$		SF.R26	1966-68		43, 52
	$2 \times 10^{-9}$		SF.R27	Sept '65		49
	$4-6 \times 10^{-9}$		SF.R28	1958-65		45, 49
	$3-10 \times 10^{-9}$		SF.R29	1964-67		43, 45
	$4-60 \times 10^{-9}$		SF.R30	1966-68		43, 49, 52
	$4-20 \times 10^{-9}$		SF.R31	1958-68		"
	$10 \times 10^{-9}$		SF.R32	May '68		43
	$1-10 \times 10^{-9}$		SF.R33	1964-67		43, 45, 49
	$5-20 \times 10^{-9}$		SF.R37	1965-67		43, 45
	$0.2 \times 10^{-3}$		RF			40
	$4 \times 10^{-9}$		SF.L3	1958-65		49
	$<0.02 \times 10^{-6}$		E.D3			glc
	up to $0.2 \times 10^{-6}$		E.D3/I6			"
	$0.1-0.3 \times 10^{-6}$		E.D3/I6, 25			"
	* $0.0-61 \times 10^{-3}$		S.SD-SF.R72]	1972		glc ms
	DDT		up to $0.164 \times 10^{-6}$	WRC "		SF.R3
ND		E.D3b	1969		"	
$20-60 \times 10^{-9}$		LR			21	
$1.2 \times 10^{-6}$		RF			40	
$0.01-3.4 \times 10^{-3}$		SF.L4			"	
$0.3-2 \times 10^{-6}$		SF.L5			55	
$17 \times 10^{-9}$		SF.R10	Sept '64		56	
"		SF.R11	Sept '65		45	
$1-20 \times 10^{-6}$		SF.R19	1957-65		41	
$17-44 \times 10^{-9}$		"	1964-66		41, 45, 47	
$14-60 \times 10^{-9}$		SF.R20	"		41, 43, 49	
$10-25 \times 10^{-9}$		"	1966-68		45, 52	
$21-70 \times 10^{-9}$		SF.R21	1964-66		43, 49	
$10-120 \times 10^{-9}$		"	1967/68		41, 45, 52	
$31-72 \times 10^{-9}$		SF.R22	1964/65		43	
$7-17 \times 10^{-9}$		SF.R23	1958-65		41, 45	
$16-20 \times 10^{-9}$		SF.R24	Sept '64		"	
$10-65 \times 10^{-9}$		SF.R26	1966-68		45	
$2 \times 10^{-9}$		SF.R27	Sept '65		43, 52	
$5-7 \times 10^{-9}$		SF.R28	Sept '66		41	
$1-20 \times 10^{-6}$		SF.R29	1957		49	
$16-50 \times 10^{-9}$		"	1964-66		57	
$10-90 \times 10^{-9}$		"	1966-68		41, 45, 52	
$10-123 \times 10^{-9}$		SF.R30	"		43, 49	
$12-149 \times 10^{-9}$		SF.R31	1958-65		43, 49, 52	
$10-50 \times 10^{-9}$		"	1966/67		41, 45	
$9-50 \times 10^{-9}$		SF.R32	1958-68		43, 49, 52	
$10-34 \times 10^{-9}$		SF.R33	1964-68		41, 43	
$20-23 \times 10^{-9}$		SF.R36	1958-66		43, 45	
					41, 49	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
DDT (continued)	10-110 x 10 <sup>-9</sup>		SF.R37	1966-68	43, 49, 52	
	27 x 10 <sup>-9</sup>		SF.R38	Sept '64	45	
	38 x 10 <sup>-9</sup>		SF.R41	Sept '66	49	
	10 x 10 <sup>-9</sup>		SF.R42	"	"	
	26 x 10 <sup>-9</sup>		SF.L3	"	"	
	4.2-4.7 x 10 <sup>-9</sup>	RVA	SF.L7	Aug '73	glc	
	30 x 10 <sup>-6</sup>	"	S.P.L7	June '73	"	
	0.2-0.4 x 10 <sup>-3</sup>	"	S.A.L7	1973	"	
	0.4-1.4 x 10 <sup>-3</sup>	"	S.WP.L7	"	"	
	3.9-7.3 x 10 <sup>-3</sup>	"	PC	"	"	
	1.4-10.7x10 <sup>-3</sup>	"	C	"	"	
	0.9-11.6x10 <sup>-3</sup>	"	P & B	"	"	
	8-197 x 10 <sup>-3</sup>	"	F	"	"	
	5-800 x 10 <sup>-9</sup>	WRC	E.D3		glc	
	260 x 10 <sup>-9</sup>	"	E.D4		"	
	ND	"	SF.R4	1966	"	
	up to 0.77x10 <sup>-6</sup>	"	E.D3b	Mar '66	"	
	~6 x 10 <sup>-6</sup>	"	E.D1	1966	"	
	0.5 x 10 <sup>-6</sup>	"	E.D2	"	"	
	0.1 x 10 <sup>-6</sup>	"	E.D3b	"	"	
	110 x 10 <sup>-6</sup>	"	S.SS	"	"	
	"	"	S.H	"	"	
	8-50 x 10 <sup>-9</sup>	"	SF.R47	"	"	
	<8-167 x 10 <sup>-9</sup>	"	SF.R48	"	"	
	<8-217 x 10 <sup>-9</sup>	"	SF.R49	"	"	
	133 x 10 <sup>-9</sup>	"	SF.R48	Feb '68	"	
	251 x 10 <sup>-9</sup>	"	SF.R49	"	"	
	up to 10x10 <sup>-9</sup>	"	SF.R50	1968	"	
	up to 5 x 10 <sup>-9</sup>	"	SF.R51	"	"	
	"	"	SF.R52	"	"	
	ND	"	SF.R53	"	"	
	up to 5 x 10 <sup>-9</sup>	"	SF.R54	"	"	
	"	"	SF.R55	"	"	
	.04-.08 x 10 <sup>-6</sup>	"	E.D3	"	"	
	.02-.1 x 10 <sup>-6</sup>	"	E.D3/I6	"	54	
	.01-.5 x 10 <sup>-6</sup>	"	E.D3/I6, 25	"	"	
	*		EPA	S.F.-E.D6	glc ms	151
	* 0.1 - 4.6	"	"	S.F.-SF.L6	glc	158
	* 0.42-375x10 <sup>-3</sup>	"	"	S.SD-SF.L6	"	"
	* 6.3-59.4x10 <sup>-6</sup>	"	"	SF.R60	1970-72	"
* 2.5-259 x 10 <sup>-6</sup>	"	"	E.D3	"	"	
* <0.3-0.4x10 <sup>-6</sup>	"	"	SF.L6	1970	"	
o,p'-DDT	* ND-12.5x10 <sup>-6</sup>	EPA	SF.R60	1970-72	glc	
	* ND-74.6 x 10 <sup>-6</sup>	"	E.D3	"	"	
	* <0.3 x 10 <sup>-6</sup>	"	SF.L6	1970	"	
	* ND-83	"	S.SD-SF.L6	1970-71	"	
	* <0.1-0.6	"	S.F.-SF.L6	1970-72	"	
	* <0.02-0.07x10 <sup>-6</sup>	RIV	SF.R5	1969-72	"	
	* 0.04 x 10 <sup>-6</sup>	RID&RIV	"	"	126	

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
o,p'-DDT (contd)	* 0.0-89x10 <sup>-3</sup>		S.SD-SF.R72	1972	glc ms 155
P,p'-DDT	* <0.02-0.17x10 <sup>-6</sup>	5] RIV	SF.R5	1969-72	glc 126
	* 0.03 x 10 <sup>-6</sup>	RID&RIV	"		
	* <0.001 x 10 <sup>-6</sup>		T6		
	* 0.57-200x10 <sup>-3</sup>		S.SD-SF.R72	1972	glc ms 155
	* <0.1 - 1.7	EPA	SF.-SF.L6	1970-72	glc 158
	* 0.11-375x10 <sup>-3</sup>	"	S.SD-SF.L6	1970-71	" "
	* 2.8-38.4x10 <sup>-6</sup>	"	SF.R60	1970-72	" "
	* 1.1-132.6x10 <sup>-6</sup>	"	E.D3	"	" "
	* <1.0 x 10 <sup>-6</sup>	"	SF.L6	1970	" "

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dibromobenzene		EPA	T1			36
Dibromochloromethane	* 0.65 x 10 <sup>-3</sup>	RIV	E.I23			
	* 13 x 10 <sup>-6</sup>		T6			149
	* <0.1-2.0x10 <sup>-6</sup>	EPA	T7		glc ms	150
	*		E.D6		"	152
	*		T1		"	156
Dibromodichloroethane	* 0.33 x 10 <sup>-6</sup>	EPA	T1			
Dibromomethane	0.2 x 10 <sup>-3</sup>	RIV	E.I23			
2,3-Dibromo-1-propanol	0.5 x 10 <sup>-3</sup>	EPA	E.I		glc ms	2
Dibromopropene isomer		EPA	E.I		glc ms	2
		"	SF.R11		"	20
Dicamba	1 x 10 <sup>-3</sup>	WRC	E.I4	1973	glc ms	
Dichloroacetate derivative	* 20 x 10 <sup>-6</sup>		E.D6		glc ms	152
Dichloroaniline	* 13 x 10 <sup>-6</sup>		E.D6		glc ms	152
Dichloroanisole		KK	SF.R5	1970/71	glc ms	4
Dichlorobenzene		EPA	T1		glc ms	36
			SF.L1&			10,22
			T3			
		CEN	SF.R	1972	"	

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Dichlorobenzene (contd)	* $10.6 \times 10^{-6}$	EPA	E.D1		glc ms 150
	* $5.6 \times 10^{-6}$	"	E.D3		" "
	* $6.3 \times 10^{-6}$	"	E.D6		" "
	* $1 \times 10^{-9}$	EPA	S.F.-ED6 T.10		" 151 " 134
o-Dichlorobenzene		KK EAWAG	SF.R5 SF.L	1970/71 1972	glc ms 4, 148 " "
			SF.R5 SF.R17		" 23 " 29
	* $3.9-16.7 \times 10^{-6}$	RID	SF.R5	1972/73	" "
	* $60 \times 10^{-3}$	"	T6		" "
	* $0.5 \& 1.0 \times 10^{-6}$ $10 \times 10^{-6}$	EAWAG	E.D6 SB6, SF. R69		glc ms 152 " 136
m-Dichlorobenzene		KK CEN EAWAG	SF.R5 SF.R SF.L	1970/71 Oct. '71 1972	glc ms 4, 148 " " " "
		EAWAG	SF.R5 E.D3		" 23 " 124
	* $0.03 \times 10^{-6}$	"	T3, SB6, SF.R69	Apr. '74	" 136
p-Dichlorobenzene		CEN EAWAG EPA	SR.R17 SF.R SF.L	1972/73 Oct. '71 1972	glc ms 29 " " " "
		EAWAG	T SF.R5		" 24 " 23
		EAWAG	E.D3	Apr. '74	" 124
	* $0.2 \times 10^{-3}$	RID	SF.R5		" "
	* $1.0 \times 10^{-6}$	"	T6		" "
	* $0.01 \times 10^{-6}$	EPA	T1		" "
	* $10 \times 10^{-6}$	KK	SF.R5		glc ms 148
			E.D6		" 152
		EAWAG	T3, SB6, SF.R69		" 136

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dichlorobiphenyls		KK EPA	SF.R5 SF.-E. D6	1970/71	glc ms "	4,148 151
Dichlorobromomethane	* * 20 x 10 <sup>-6</sup>		T10 T6		glc ms	134 149
Dichlorobutane	* 27 x 10 <sup>-6</sup>		E.D6		glc ms	152
bis-(Dichlorobutyl)ether	* *	KK	SF.R5		glc ms	148
Dichlorodibenzyl	* *	KK	SF.R5		glc ms	148
Dichlorodifluoroethane	* *		T10		glc ms	134
Dichlorodimethoxybenzene		KK	SF.R5	1970/71	glc ms	4,148
Dichloroethane	* *		T1		glo ms	156
1,2-Dichloroethane	* * 0.7 x 10 <sup>-6</sup> * 61 x 10 <sup>-3</sup> * 8.0 x 10 <sup>-6</sup>	EPA CEN EPA	T1 SF.R T2 T1	1971/72	glc ms "	36 9
Dichloro-bis(ethoxy)benzene	* 30 x 10 <sup>-6</sup>		E.D6		glc ms	152
Dichloroethylbenzene	* 20 x 10 <sup>-6</sup>		E.D6		glc ms	152
Dichloroethylene	* 32 x 10 <sup>-6</sup>	RIV	E.I23			

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dichloroethyl ether		EPA	T1			36
bis-(3,5-dichloro-2-hydroxyphenyl)sulphide *		KK	SF.R5		glc ms	148
Dichloromethoxybenzene *		KK	SF.R5		glc ms	148
Dichloromethoxytoluene *	$32 \times 10^{-6}$		E.D6		glc ms	152
Dichloromethyl benzene *		KK	SF.R5		glc ms	148
Dichloro- $\alpha$ -methyl benzyl alcohol *	$10 \times 10^{-6}$		E.D6		glc ms	152
Di-(chloroisopropyl)ether		KK	SF.R5	1970/71	glc ms	4
Dichlorophenols	$80 \times 10^{-6}$	WRC	LF	June '72	glc ms	
2,4-Dichlorophenol	$6.6 \times 10^{-6}$		SF.R36		glc	58
2,6-Dichlorophenol		RID	SF.R5			142
	$0.1 \times 10^{-6}$	"	T6			"
	$0.1 \times 10^{-6}$	"	"			"
4,4'-dichlorophenylsulphone		KK	SF.R5 T1		glc ms "	148 156
Dichloropropane *			T10		glc ms	134

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Dichloroprop	$0.5 \times 10^{-3}$	WRC	E.I4	1973	glc ms	
Dichloropropene		EPA	SF.R/E. I5 T1		glc ms "	2 156
* 1,3-Dichloropropene			T1		glc ms	156
Dichlorotoluene		KK	SF.R5 E.D6	1970/71	glc ms "	4 152
* 2,4-Dichlorophenoxyacetic acid	up to $.21 \times 10^{-3}$	WRC	SF/LR. RU	1971/72	glc	
	$70-120 \times 10^{-9}$		SF.R29	1967/68		43
	$20-70 \times 10^{-9}$		SF.R27	1968		"
	$30-240 \times 10^{-9}$		SF.R37	1967/68		"
	$10-110 \times 10^{-9}$		SF.R30	"		"
	$50 \times 10^{-9}$		SF.R21	Apr. '68		"
	$30 \times 10^{-9}$		SF.R32	May '68		"
	$50-330 \times 10^{-9}$		SF.R26	1967/68		"
	$50-140 \times 10^{-9}$		SF.R20	"		"
	$20-30 \times 10^{-9}$		SF.R33	"		"
Dieldrin	$3-59 \times 10^{-9}$	WRC	SF.R3	1965/66	glc	
	up to $30 \times 10^{-9}$	"	SF.RL7	"	"	
	ND	"	SB	"	"	
	up to $3 \times 10^{-6}$	"	SF/E.I6	"	"	
	$40 \times 10^{-9}$	"	E.D4	1969	"	
		EPA	T/E.I6, 25 RF		glc ms	48
	$3 \times 10^{-6}$		SF.R19	1958-64		40
	$22-122 \times 10^{-9}$		"	1964-66		49
	$2-24 \times 10^{-9}$		SF.R20	"		41, 45, 49
	$3-5 \times 10^{-9}$		"	June '67		45, 49, 52
	$10 \times 10^{-9}$		SF.R21	1964-66		43
	$2-15 \times 10^{-9}$		"	1966/67		45, 52
	$10-23 \times 10^{-9}$		SF.R22	1964/66		43, 49
	$3-12 \times 10^{-9}$		SF.R23	Sept. '65		41, 45, 49
	$5 \times 10^{-9}$		SF.R24	1958-64		41
	$16-56 \times 10^{-9}$		"	1965-66		45, 49
	$22-110 \times 10^{-9}$		SF.R25	1958-68		49
	$16-68 \times 10^{-9}$					"



Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Dieldrin (contd)	5-40 x 10 <sup>-9</sup>		SF.R26	1966-68	43, 52
	8 x 10 <sup>-9</sup>		SF.R27	Sept '64	45
	3-8 x 10 <sup>-9</sup>		SF.R28	1964-66	45, 49
	4-23 x 10 <sup>-9</sup>		SF.R29	"	41, 45, 52
	4-70 x 10 <sup>-9</sup>		"	1966-68	43, 49
	4-15 x 10 <sup>-9</sup>		SF.R30	1966	49, 52
	5-32 x 10 <sup>-9</sup>		SF.R31	1964	45
	3-29 x 10 <sup>-9</sup>		"	1965	41, 49, 52
	4 x 10 <sup>-9</sup>		SF.R32	1964	45
	3-11 x 10 <sup>-9</sup>		"	1965/66	41, 49, 52
	2-15 x 10 <sup>-9</sup>		SF.R33	1964	45
	3-10 x 10 <sup>-9</sup>		"	1965/66	41, 43, 52
	4 x 10 <sup>-9</sup>		SF.R35	Sept '66	49
	13-55 x 10 <sup>-9</sup>		SF.R36	1958-65	45, 49
	2-7 x 10 <sup>-9</sup>		"	1965/66	41, 49
	1-10 x 10 <sup>-9</sup>		SF.R37	1964-66	45, 49, 52
	10 x 10 <sup>-9</sup>		"	Apr '68	43
	16-24 x 10 <sup>-9</sup>		SF.R38	1958-65	41, 45, 49
	4 x 10 <sup>-9</sup>		"	Sept '66	49
	3-16 x 10 <sup>-9</sup>		SF.R41	Sept '65	41
	2-4 x 10 <sup>-9</sup>		SF.R42	1964-66	41, 45, 49
	15-45 x 10 <sup>-9</sup>		SF.R10	1965/66	49
	3-7 x 10 <sup>-9</sup>		SF.L6	1964/65	41, 45
	0.01-0.08 x 10 <sup>-6</sup>	RIV	SF.R5	1969/62	126
	0.01 x 10 <sup>-6</sup>	"	SF.R68	"	"
	* 0.2 x 10 <sup>-6</sup>	EPA	SF.R24		
	* 0.04 x 10 <sup>-6</sup>	RIV	SF.R5		
	* 0.07 x 10 <sup>-6</sup>	EPA	T1		
	* 0.02 x 10 <sup>-6</sup>	RIV	T6		
	* 0.01 x 10 <sup>-6</sup>	"	"		
* <0.1-0.5	EPA	S.F.-SF.L6	1970-72	158	
* 0.01-30.8 x 10 <sup>-3</sup>	"	S.SD-SF.L6	1970-71	"	
* 0.9-22.5 x 10 <sup>-6</sup>	"	SF.R60	1970-72	"	
* 0.6-64.3 x 10 <sup>-6</sup>	"	E.D3	"	"	
* <0.2 x 10 <sup>-6</sup>	"	SF.L6	1970	"	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References	
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation		
Dieldrin (cont)	7-1900 x 10 <sup>-9</sup>	WRC	E.D3		glc	51	
	40 x 10 <sup>-9</sup>	"	E.D4		"	"	
	ND	"	SF.R4	1966	"	"	
	up to 250 x 10 <sup>-9</sup>	"	E.D3b	Mar '66	"	"	
	~0.7 x 10 <sup>-6</sup>	"	E.D1	1966	"	"	
	~0.4 x 10 <sup>-6</sup>	"	E.D2	"	"	"	
	~0.2 x 10 <sup>-6</sup>	"	E.D3b	"	"	"	
	~140 x 10 <sup>-6</sup>	"	S.SS	"	"	"	
	~210 x 10 <sup>-6</sup>	"	S.H	"	"	"	
	< 3-34 x 10 <sup>-9</sup>	"	SF.R47	"	"	"	
	31-286 x 10 <sup>-9</sup>	"	SF.R48	"	"	"	
	0.10-0.63 x 10 <sup>-6</sup>	"	SF.R49	"	"	"	
	0.197 x 10 <sup>-6</sup>	"	SF.R48	Feb '68	"	"	
	0.65 x 10 <sup>-6</sup>	"	SF.R49	"	"	"	
	< 5-40 x 10 <sup>-9</sup>	"	SF.R50	1968	"	"	
	< 5-8 x 10 <sup>-9</sup>	"	SF.R51	"	"	"	
	up to 5 x 10 <sup>-9</sup>	"	SF.R52	"	"	"	
	< 5-10 x 10 <sup>-9</sup>	"	SF.R53	"	"	"	
	up to 5 x 10 <sup>-9</sup>	"	SF.R54	"	"	"	
	up to 12.9 x 10 <sup>-9</sup>	"	SF.R55	"	"	"	
	0.1-0.3 x 10 <sup>-6</sup>		E.D3		"	54	
	1-2 x 10 <sup>-6</sup>		E.D3/16		"	"	
	4-10 x 10 <sup>-6</sup>		E.D3/16, 25		"	"	
	Endosulfan (thiodan)	< 0.01-0.88 x 10 <sup>-6</sup>	RIV	SF.R5		glc	59
		* 0.06 & 0.04 x 10 <sup>-6</sup>	RIV & RIV	"	1969-72		126
	(α- & β-)	* 0.02 & 0.01 x 10 <sup>-6</sup>	RIV	T6			
	(α-)	* 0.10 x 10 <sup>-6</sup>					
Endrin and isomers	4-214 x 10 <sup>-9</sup>		SF.R19	1958-65		41, 45, 49	
	3-14 x 10 <sup>-9</sup>		"	Sept '66		49	
	12 x 10 <sup>-9</sup>		SF.R21	Sept '64		45	
	7-23 x 10 <sup>-9</sup>		SF.R22	1964-65		41, 45	
	22-31 x 10 <sup>-9</sup>		SF.R24	Sept '66		49	
	21 x 10 <sup>-9</sup>		SF.R27	Sept '64		45	
	69 x 10 <sup>-9</sup>		SF.R28	Sept '66		49	
	5-9 x 10 <sup>-9</sup>		SF.R29	1964-66		45, 49	
	3-67 x 10 <sup>-9</sup>		SF.R31	1964/65		41, 45	
	5 x 10 <sup>-9</sup>		SF.R32	Sept '66		49	
	9-19 x 10 <sup>-9</sup>		SF.R33	1964-66		45, 49	
	3 x 10 <sup>-9</sup>		SF.R35	Sept '66		49	
	4-14 x 10 <sup>-9</sup>		SF.R37	1964-66		45, 49	
	0.94 x 10 <sup>-6</sup>		SF.R41	Sept '64		45	
	6 x 10 <sup>-9</sup>		SF.L6	"		"	
	22 x 10 <sup>-9</sup>		SF.L3	Sept '66		49	
	< 0.01-0.07 x 10 <sup>-6</sup>	RIV	SF.R5	1969/72	glc	126	
	* 0.02 x 10 <sup>-6</sup>	"	"				
	* 4 x 10 <sup>-9</sup>	EPA	T1				

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Fenac	8.82 x 10 <sup>3</sup>		SF.LR1			35
Heptachlor	* ND-0.24x10 <sup>-3</sup>	EPA	S.SD- SF.L6	1971	glc	158
	* 0.04 x 10 <sup>-6</sup>	RIV	SF.R5			
	* 0.01 x 10 <sup>-6</sup>		T6			
	48 x 10 <sup>-9</sup>		SF.R19	Sept. '65		41
	5-40 x 10 <sup>-9</sup>		SF.R20	1966/67		43, 52, 60
	5-10 x 10 <sup>-9</sup>		SF.R21	1965-67		"
	115 x 10 <sup>-9</sup>		SF.R22	Sept. '65		41
	5-10 x 10 <sup>-9</sup>		SF.R26	1966/67		43, 52, 60
	4-20 x 10 <sup>-9</sup>		SF.R29	1965/66		41, 49, 60
	10-40 x 10 <sup>-9</sup>		"	1967		43
	15-20 x 10 <sup>-9</sup>		SF.R30	1966/67		43, 52, 60
	5-35 x 10 <sup>-9</sup>		SF.R31	1965/66		41, 52, 60
	10-20 x 10 <sup>-9</sup>		"	1967		43
	20 x 10 <sup>-9</sup>		SF.R32	1965-67		41, 43
	10-20 x 10 <sup>-9</sup>		SF.R33	1967		43
	24 x 10 <sup>-9</sup>		SF.R36	Sept. '65		41
	5-20 x 10 <sup>-9</sup>		SF.R37	1965-67		43, 52, 60
	<0.01-0.04x10 <sup>-6</sup>	RIV	SF.R5	1969-72	glc	126
Heptachlor epoxide	1-67 x 10 <sup>-9</sup>		SF.R19	1958-65		41
	2-7 x 10 <sup>-9</sup>		"	Sept. '66		49
	5 x 10 <sup>-9</sup>		SF.R20	June '66		52
	5 x 10 <sup>-9</sup>		SF.R21	1965/66		"
	20 x 10 <sup>-9</sup>		SF.R22	Sept. '65		41
	4 x 10 <sup>-9</sup>		SF.R23	Sept. '66		49
	6 x 10 <sup>-9</sup>		SF.R24	"		"
	2-5 x 10 <sup>-9</sup>		SF.R26	1965/66		41, 52
	40 x 10 <sup>-9</sup>		"	June '67		43
	7 x 10 <sup>-9</sup>		SF.R28	Sept. '66		49
	2-20 x 10 <sup>-9</sup>		SF.R29	1958-67		41, 43, 52
	5 x 10 <sup>-9</sup>		SF.R30	1966		52
	5-10 x 10 <sup>-9</sup>		SF.R31	1965-66		"
	5-19 x 10 <sup>-9</sup>		SF.R32	"		41, 52
	5 x 10 <sup>-9</sup>		SF.R33	Jan. '66		52
	2-20 x 10 <sup>-9</sup>		SF.R36	Sept. '65		41
	5 x 10 <sup>-9</sup>		SF.R37	1965-66		52
	3 x 10 <sup>-9</sup>		SF.R41	Sept. '65		41
	10 x 10 <sup>-9</sup>		SF.L3	Sept. '66		49
	40 x 10 <sup>-9</sup>		RF.			40
	<0.01-0.06x10 <sup>-6</sup>	RIV	SF.R5	1969-72	glc	126
	* 0.05 x 10 <sup>-6</sup>	"	"			
	* <0.01 x 10 <sup>-6</sup>		T6			
	* <0.1 - 0.1	EPA	S.E-SF.L6]	1970-72	glc	158

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Heptachlor epoxide (contd)						
* ND-57 x 10 <sup>-3</sup>	EPA	S. SD-SF.L6]	1970-71	glc	158	
* ND-5.4 x 10 <sup>-6</sup>	"	SF.R60	1970-72	"	"	
* <0.2-17.2x10 <sup>-6</sup>	"	E.D3	"	"	"	
* <0.2 x 10 <sup>-6</sup>	"	SF.L6	1970	"	"	
Heptachlorobiphenyl						
*	CEN	SF.R	1974	glc ms		
Heptachloronorbornene						
		SF.R19/ I10			61	
1,2,3,4,5,7,7-heptachloronorbornene						
* 0.06 x 10 <sup>-6</sup>	EPA	T1				
Hexachlor epoxide						
	EPA	E.I10		glc ms	48	
Hexachloroacetone						
* 30 x 10 <sup>-6</sup>		E.D6		glc ms	152	
Hexachlorobenzene						
	EPA	T1			36	
	"	T/SF. R36		ms	47	
	"	E.I23			2	
	KK	SF.R5	1970/71	glc ms	4,148	
0.4-3 x 10 <sup>-6</sup>		SF.L5			56	
0.01 x 10 <sup>-6</sup>	RIV	SF.R68	1969-72	glc	126	
* <0.01-0.52x 10 <sup>-6</sup>	"	SF.R5	"	"	"	
* 20 x 10 <sup>-6</sup>	"	E.I23				
* 0.22 x 10 <sup>-6</sup>	RID&RIV	SF.R5				
* 0.01 x 10 <sup>-6</sup>	"	SF.R39				
* 0.01 & 0.06	RIV	T6				
*	EPA	S.F-E.D6		glc ms	151	
*	CEN	SF.R	1974	tlc ms		

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Hexachlorobiphenyls	* *	EPA CEN	S.F.-E.06] SF.R	1974	glc ms tlc ms 151
Hexachlorobutadiene	* * * * 6.4 x 10 <sup>-6</sup> 5.0 x 10 <sup>-6</sup> 0.27 x 10 <sup>-6</sup>	KK EPA RIV RID EPA	SF.R5 E.I10 E.I23 SF.R5 T1	1970/71	glc ms " " " " 4,148 41 142
1,3-Hexachlorobutadiene			SF.R5		glc ms 23
Hexachlorocyclohexane		KK	SF.R5	1970/71	glc ms 4,148
Hexachlorocyclopentadiene		EPA	E.I10		glc ms 48
Hexachloroethane	* * 8.4 x 10 <sup>-6</sup> 4.4 x 10 <sup>-6</sup>	CEN EPA " RIV EPA	SF.R SF.R19/ I5 T/SF.R 36 E.I23 T1	1972	glc ms " ms " " 47 2
Hexachloronorbornadiene & isomers		EPA	SF.R19/ I10 E.I10		glc ms 61 48
Isodrin & isomers			SF.R19/ I10		61

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
MCPA, (4-chloro-2-methylphenoxyacetic acid)	up to $0.3 \times 10^{-6}$	WRC	SF.R2	1973	glc ms	
MCPB, (4-(4-chloro-2-methylphenoxy)butyric acid)	$0.05-0.15 \times 10^{-6}$	WRC	SF.R2	1973	glc ms	
Mecoprop, (2-(4-chloro-2-methylphenoxy)propionic acid)	$0.04-1.3 \times 10^{-6}$	WRC	SF.R2	1973	glc ms	
Methoxychlor	* ND - 0.1	EPA	S.F.-SF. L6	1971	glc	158
	* $0.13-175 \times 10^{-3}$	"	S.SD-SF. L6	"	"	"
	* $2.9-89.1 \times 10^{-6}$	"	SF.R60	1971-72	"	"
	* $ND-106 \times 10^{-6}$	"	E.D3	"	"	"
Methoxyphenol	*	CEN	SF.R	1973	glc ms	
Methyl chloride		EPA CEN	T1 SF.R	1972	glc ms	36
Methylchlorophenylsulphone		KK	SF.R5	1970/71	glc ms	4
Bis-Methylchloropyridine			SF.R17	1972	"	29
Methyldichlorodiphenylmethane		KK	SF.R5	1970/71	glc ms	4
Methylene chloride	* $8.22 \times 10^{-6}$	EPA	E.D1		glc ms	150
	* $2.9 \times 10^{-6}$	"	E.D3		"	"
	* $3.4 \times 10^{-6}$	"	E.D6		"	"

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Methylmercuric chloride	9-85(as Hg)		F/R18/ I23	1960-63		62
	14.4		SF.R18/ I23	1965		63
N-Methyl-trichloroaniline	* $10 \times 10^{-6}$		E.D6		glc ms	152
Nonachlor		EPA	E.I10		glc ms	48
	*	"	S.F.-E. D6			151
Octachlorodibenzoparadioxane		CEN			glc ms	53
Octyl chloride	* $1 \times 10^{-9}$		T10		glc ms	134
PCB's	$<0.05 \times 10^{-6}$	EPA	E.I10			
		WRC	E.D3b	Jan. '72	hplc	
		KK	F.R5	1970/71	glc ms	4
	$0.2 \times 10^{-6}$	EPA	E.I18		"	2
		"	SD.R11		"	20
		"	SF.R36		"	"
	$0.2 \times 10^{-3}$	WRC	LF	1973	glc	
	$0.09-0.32 \times 10^{-9}$		SF.R64	1972/73	"	127
	$0.01-0.4 \times 10^{-6}$		SF.R59		"	128
	$5-3200 \times 10^{-3}$		S.SD		"	"
	* $0.4 \times 10^{-6}$		SF.R5		"	141
	* $0.1 \times 10^{-6}$		T6		"	"
	* $0.0-1400 \times 10^{-3}$		S.SD-	1972	glc ms	155
			SF.R72			
	$29-48 \times 10^{-9}$	HVA	SF.L7	Aug. '73	glc	
	$0.22 \times 10^{-3}$	"	S.P-L7	June '73	"	
	$0.3-3.6 \times 10^{-3}$	"	S.A-L7	1973	"	
	$1.4-2.5 \times 10^{-3}$	"	S.WP.L7		"	
	$28-48.8 \times 10^{-3}$	"	PC	"	"	
$11-101 \times 10^{-3}$	"	C	"	"		
$5-46 \times 10^{-3}$	"	P&B	"	"		
$41-342 \times 10^{-3}$	"	F	"	"		
0.02-5.6	WRC	S.SS	1970/71	"		
$<0.03-2.17 \times 10^{-6}$		SF.R56	Aug. '69	"	64	
$0.04-0.25 \times 10^{-6}$		E.D3	Mar. '70	"	"	
$2.50 \times 10^{-6}$		E.I23	"	"	"	

Substance	Concentration (g/l-waters) (ng/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
PCB's (contd)	$<0.05 \times 10^{-6}$		E.D3b/ I15, 26,27, 33	1971	lc glc	65
	$0.12-0.22 \times 10^{-6}$		E.D2/I 23,32, 33		"	"
	$0.07-0.23 \times 10^{-6}$		E.D3a/ I28, 31,34		"	"
	$0.28-1.1 \times 10^{-6}$		E.D3b/ I15, 28,31, 34		"	"
	$0.60-0.83 \times 10^{-6}$		E.D3a/ I23, 28,33, 34		"	"
	$0.08-0.14 \times 10^{-6}$		E.D3a/ I15, 27,29, 30		"	"
	$2.2-2.8 \times 10^{-6}$		E.D3b/ I16, 31,34		"	"
	$0.17-0.34 \times 10^{-6}$		E.D3b		"	"
	$0.06-0.14 \times 10^{-6}$		E.D3a/ I23, 28,34		"	"
	$0.07-0.15 \times 10^{-6}$		E.D3a/ I15, 28,34		"	"
	$32-42 \times 10^{-6}$		E.D3b/ I5,29, 31,32		"	"
	$9 \times 10^{-6}$		SF.R/I5]		glc ns	66
	$0.2-3.0$		SF		"	"
*		EAMAG	T3, SB6, SF.R69		"	136
Pentachloroacetone	$30 \times 10^{-6}$		E.D6		glc ns	152
Pentachloroanisole	*	EPA	S.F.-3, I6		glc ns	151
		KK	SF.R5	1970/71	"	4
Pentachlorobenzene	*	KK	SF.R5		glc ns	148



Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Pentachlorobiphenyls *		EPA	SF.-E. D6		glc ms	151
*		CEN	SF.R	1974	tlc ms	
Pentachlorobutadiene *		KK	SF.R5		glc ms	148
Pentachlorobutene *		KK	SF.RF		glc ms	148
Pentachlorocyclohexane		KK	SF.R5		glc ms	148
Pentachloromethoxybenzene *		KK	SF.R5		glc ms	148
Pentachloromethylbenzene *		KK	SF.R5		glc ms	148
Pentachlorophenol *		EPA CEN	S.F.-E.D6 SF.R	1973	glc ms "	151
Tetrachloroacetone *	11 x 10 <sup>-6</sup>		E.D6		glc ms	152
1,1,3,3-Tetrachloroacetone *		EPA	T12		glc ms	154
Tetrachloroanisole *		EPA	S.F.-E.D6		glc ms	151
1,2,3,4-Tetrachlorobenzene * *		KK EAWAG	SF.R5 SB6, SF.R69		glc ms "	148 134
1,2,3,5-Tetrachlorobenzene *		KK	SF.R5		glc ms	148
1,2,4,5-Tetrachlorobenzene *		KK	SF.R5		glc ms	148
Tetrachlorobenzoquinone *		CEN	SF.R	1974	tlc ms	

Substance (1)	Concentration (g/l-waters) (ng/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Tetrachlorobiphenyls * *		CEN EPA	SF.R S.F.-E.D6	1973	glc ms "	151
Tetrachlorobutadiene		KK	SF.R5		glc ms	148
Tetrachlorodibenzyl *		KK	SF.R5		glc ms	148
Tetrachloroethane *	$2.2 \times 10^{-3}$ $0.01 \times 10^{-6}$	EPA	E.I23 T10		glc ms "	20 134
1,1,2,2-Tetrachloroethane *	$0.11 \times 10^{-6}$	EPA	T1			
Tetrachloroethylene *	$0.5 \times 10^{-6}$	EPA CEN KK EPA	T1 " SF.R SF.R5 T2 T/SF.R36  SF.L1, T3, SB6	1971/72 1970/71  1973	glc ms " " " "	156 36 4, 148 9 47 123

Substance	Concentration: (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Tetrachloroethylene (contd)						
* 0.65 x 10 <sup>-3</sup>	RIV	E.I23				
* 0.5 x 10 <sup>-6</sup>	EPA	T1			glc ms	136
	EAWAG	T3, SB6, SF.R69				
1,1,2,2-Tetrachloroethylene						
* 6.2 x 10 <sup>-6</sup>	EPA	E.D1			glc ms	150
* 3.9 x 10 <sup>-6</sup>	"	E.D3			"	"
* 4.2 x 10 <sup>-6</sup>	"	E.D6			"	"
Tetrachloroethylstyrene						
*			E.D6		glc ms	152
(Tetrachlorohydroxy)-phenoxy trichlorobenzoinone						
*	CEN	SF.R		1974	tlc ms	
Tetrachloromethoxytoluene						
* 40 x 10 <sup>-6</sup>			E.D6		glc ms	152
Tetrachloromethane						
<0.1 x 10 <sup>-3</sup>			T2 SF.L1		glc ms "	9 10
Tetrachloromethoxybenzene						
*	KK	SF.R5			glc ms	148
Tetrachloromethylbenzene						
*	KK	SF.R5			glc ms	148
Tetrachlorophenol						
		CEN EPA	SF.R E.I9 E.D6	1972	glc ms " glc ms	53 2 152
* 30 x 10 <sup>-6</sup>						
Tetrachlorophthalate derivative						
*			E.D6		glc ms	152
Tetrachloro-isopropylether						
* 0.6 x 10 <sup>-6</sup>			SF.R5			141

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Tetrachloroquinone		CEN	SF.R	1972	glc ms	53
Tetrachlorotoluene		KK	SF.R5	1970/71	glc ms	4
Toxaphene	0.4 x 10 <sup>-6</sup> 0.75 x 10 <sup>-6</sup> 1-28 x 10 <sup>-6</sup> 4.2-15.2 0.4-18.3 0.04-0.13		T/LR.1 SF.R44 SF.L8 S.F.L8 S.WP.L8 S.SD.L8			50 42 67 " " "
Trichloroanisole		KK EPA	SF.R5 S.F.-E.16]	1970/71	glc ms "	4 151
2,4,5-Trichloroanisole			SF.R5		glc ms	23
Trichlorobenzene isomers	0.1-0.5x10 <sup>-6</sup> 20 x 10 <sup>-6</sup>	CEN EPA	SF.R25/ I21 SF.R SF.R/I 14 SF.L1& T3 SF.L1 SF.R5	1972/73 1971/72	glc ms " " " " "	68 2 22 10 23
	5.0 x 10 <sup>-6</sup>	RID	"			
	0.1 x 10 <sup>-6</sup>	"	T6			
	66.9 x 10 <sup>-6</sup>	EPA	E.D1		glc ms	150
	56.7 x 10 <sup>-6</sup>	"	E.D3		"	"
	56.9 x 10 <sup>-6</sup>	"	E.D6		"	"
		"	S.F.-E.16		"	151
		"	E.D6		"	152
	1 x 10 <sup>-9</sup>	"	T10		"	134
1,2,3-Trichlorobenzene		EAWAG KK EAWAG "	SF.L SF.R5 E.D3 SB6, SF R69	1972 1970/71 Apr. '74	glc ms " "	4, 148 124 136

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
1,2,4-Trichlorobenzene		EAWAG KK EAWAG "	SF.L SF.R5 E.D3 T3, SB6, SF R69	1972 1970/71 Apr. '74	glc ms " "	4, 148 124 136
1,3,5-Trichlorobenzene		KK EAWAG	SF.R5 SB6, SF R69	1970/71	glc ms "	4, 148 136
2,3,6-Trichlorobenzoic acid	5 x 10 <sup>-3</sup> 1 x 10 <sup>-3</sup>  0.2-6 x 10 <sup>-6</sup> 1 x 10 <sup>-6</sup>	WRC " " "	E.I3b SF.R7/ I10 SF.R7 SF.R2/ I10	1973 " " "	glc ms " " "	
Trichlorobiphenyl		KK EPA	SF.R5 S.F.-E.D6]		glc ms "	148 151
Trichlorocumene			E.D6		glc ms	152
Trichlorocyclopentene isomers		EPA	E.I10		glc ms	48
Trichlorodimethyl benzene		KK	SF.R5 E.D6		glc ms "	148 152
1,1,2-Trichloroethane	5.4 x 10 <sup>-3</sup> 0.45 x 10 <sup>-6</sup>	EPA " EPA	T1 E.I23 T1		glc ms	36 2
1,1,1-Trichloroethane	16.5 x 10 <sup>-6</sup> 9.0 x 10 <sup>-6</sup> 8.5 x 10 <sup>-6</sup>	EPA " "	E.D1 E.D3 E.D6		glc ms " "	150 " "

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Trichloroethylbenzene *	$12 \times 10^{-6}$		E.D6		glc ms	152
Trichloroethylene *			T1		glc ms	156
		CEN	SF.R	1972	"	10
			SF.L1		"	123
			SF.L1,	1973	"	
			T3, SB6			
	$0.2 \times 10^{-3}$	RIV	E.I23			
1,1,2-Trichloroethylene *	$40.4 \times 10^{-6}$	EPA	E.D1		glc ms	150
	$8.6 \times 10^{-6}$	"	E.D3		"	"
	$9.8 \times 10^{-6}$	"	E.D6		"	"
Trichlorofluoromethane *			T10		glc ms	134
Trichloroguaiacol		EPA	E.I5		glc ms	2
Trichlorohydroxybenzoquinone *		CEN	SF.R	1974	tlc ms	
Trichloromethane *			T10		glc ms	134
Trichloro-N-methylanisole *			E.D6		glc ms	152
Trichloromethoxybenzene *		KK	SF.R5		glc ms	148
Trichloromethylbenzene *		KK	SF.R5		glc ms	
Trichloro- $\alpha$ -methyl benzyl alcohol *	$25-50 \times 10^{-6}$		E.D6		glc ms	152

Substance	Concentration ( $\mu$ /l-waters) (mg/kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Trichloromethylene			T2		glc ms
Trichloromethylstyrene *	$10 \times 10^{-6}$		E.D6		glc ms 152
Trichlorophenol	$40 \times 10^{-6}$	WRC	LF	June '72 1972	glc ms
		CEN	SF.R		"
	$2&4 \times 10^{-9}$	"	T6		142
*		RID	E.D6		152
*		EPA	T12		154
2,4,5-Trichlorophenyl 4-chlorophenyl sulphone *		KK	SF.R5		glc ms 148
Trichlorophthalate derivative			E.D6		glc ms 152

Substance	Concentration ( $\mu$ /l-waters) ( $\mu$ g/Kg-solid samples)	Notes (see Key)				Reference Number
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<b><u>ORGANO METALLICS</u></b>						
Copper (II) acetate		EPA	ED1		ms hplc	
Diphenylmercury		EPA	SF.L	1968	glc ms	20
Methylmercuric chloride	5		S.F/SF.L14 SF.L15			116 "
Methyl mercury	0.08 (as Hg)	RVA	S.F/SF.L7	1973	glc	
Phenylmercuric chloride		EPA	SF.L	1968	glc ms	20



Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
<u>MERCAPTANS AND MISC. SULPHUR COMPOUNDS</u>						
2-Acetylthiophene		EPA "	E.I5 SF.R19/I5		glc ms "	2 "
Alkyl benzothiophenes	< 15 x 10 <sup>-6</sup>		SB1		ms	1
Benzothiazole		EPA	SF.R17 LF		glc ms "	29 20
2-Benzothiazole *			SF.R71			135
Benzothiazolyl-2-methyl sulphon *		EPA "	SF.R/I14 E.I17		glc ms "	2 24
Benzothiophene		KK	SF.R5		glc ms	148
Butylbenzene sulphonamide *	0.37 x 10 <sup>-6</sup>		SF.R17 SB1		glc ms glc ms uv	29 1
n-Butyl isothiocyanate			T11	Apr '72	glc ms	135
t-Butylmercaptan	0.1-0.5 x 10 <sup>-3</sup>	EPA	E.I20		glc ms	2
2,5-Diethylthiophene	4.6 x 10 <sup>-6</sup>		SF.R36		glc	58
2,4-Dimethyldiphenyl sulphone		EPA " "	E.I5		glc ms	20
Dimethyl disulphide		EPA " "	E.I18 E.I22 SF.R11		glc ms " "	2 " 20
Dimethyl sulphone			SF.L1, T3, S6	1973	glc ms	10,123
Dimethyl sulphoxide		EPA "	SF.R19/I5 E.I5		glc ms "	2 20
Dimethyl trisulphide		EPA	E.I5		glc ms	2
Diphenylene sulphide			SF.L1	1973	glc ms	10,123
Diphenyl sulphone *	0.1 x 10 <sup>-3</sup>	EPA KK	E.I9 SF.R5		glc ms "	2 148
Diphenyl sulphone		KK	SF.R5	1970/71	glc ms	4

Substance (1)	Concentration (g/l-waters) (ng/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
p-Dithiane	$0.12 \times 10^{-3}$	EPA	E.I16		glc ms	2
Ethyl isothiocyanate	$<1.5 \times 10^{-3}$	EPA	E.I20		glc ms	2
2-Formylthiophene		EPA	E.I5		glc ms	2
Hydrogen sulphide		CEN	SF.R	Jun.'72	glc ms	
p-Hydroxythiophenol		EPA	E.I5		glc ms	2
Lauryl sulphate	$10 \times 10^{-6}$		SF.R1	Sept '72	tlc	
2-Mercaptobenzothiazole		EPA "	E.I16 E.I5		glc ms "	2 "
Methylbenzothiazole *			S.F.R71		glc ms	135
2-Methylbenzothiazole * * *	$10 \times 10^{-6}$ $1.0 \times 10^{-6}$	RID "	SF.R5 T6			142 "
Methyl benzothiazolysulphone		KK	SF.R5	1970/71	glc ms	4
2-Methylthiobenzthiazole * *	$200 \times 10^{-6}$ $0.5 \times 10^{-6}$	KK RID "	SF.R5 " T6	1970/71	glc ms	4,148
Methyl trisulphide		EPA	E.I5		glc ms	2
n-Octylmercaptan			E.I36		glc	58
1-Phenyl-2-thiopropene			SF.L1	1973	glc ms	10,123
2-Propionyl thiophene		EPA	SF.R19/I5		glc	2
Sulphur dioxide		CEN	SF.R	Jun '72	glc ms	

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
2,2-Thiodiethanol	2 x 10 <sup>-3</sup>	EPA	E.I16		glc ms	2
2-Thiomethylbenzothiazole *			SF.R71		glc ms	135
Thiophenol			SF.R5/E.I			

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<b><u>PHENOLS AND QUINONES</u></b>						
Alkyl quinolines	$0.05 \times 10^{-3}$	EPA	E.I9 SF.R17		glc ms "	2 29
Anthraquinone	* $2.0 \times 10^{-6}$	KK RID	SF.R5 "	1970/71	glc ms	4
Benzoquinoline			SF.R17		glc ms	29
2-t-Butyl-4-methoxyphenol		KK	SF.R5	Nov '71	glc ms	4,148
2-t-Butyl-4-methylphenol		KK	SF.R5	Nov '71	glc ms	4
4-Carboxyl-2,6-di-t-butyl phenol	*	KK	SF.R5		glc ms	148
Catechol	$0.1 \times 10^{-3}$ $8-3330 \times 10^{-3}$	WRC	LF E.I12	1973/74	glc "	70
Cresol isomers	$10 \times 10^{-9}$ $1.3 \times 10^{-6}$		SF.R1 SF.R36	Aug '72	tlc glc	58
o-Cresol	$0.12 \times 10^{-3}$ $1.4 \times 10^{-3}$ $0.12 \times 10^{-3}$ $0.3 \times 10^{-3}$ $0.100-0.386$	EPA " " " WRC	E.I8 E.I12 E.I9 E.I8 LF E.I12		glc ms " " " glc "	20 48 2 " 20 70
m-Cresol	$2.5 \times 10^{-3}$ $0.3 \times 10^{-3}$ $0.156-0.735$	EPA EPA WRC	E.I12 SF.R36 E.I9 LF E.I12		glc ms pc glc ms glc "	48 71 2 70
p-Cresol	$0.05 \times 10^{-3}$ $1.0 \times 10^{-3}$ $0.109 - 0.485$ $14.6 \times 10^{-6}$	EPA " " WRC CEN EPA	E.D1 E.I5 LF " SF.R E.I12 SB/LF	1972	hplc glc ms " glc glc ms glc glc ms	2 20 70 147
2,6-Di-t-amybenzoquinone	*	EPA	SB/LF		glc ms	147

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
2,6-Di-t-butyl-p-benzoquinone	0.01 x 10 <sup>-3</sup>	EPA	E.135		glc ms	2
*	0.23 x 10 <sup>-6</sup>	"	SB/IF		"	147
2,5-Di-t-butyl cresol		KK EPA	SF.R5 SF.R11	Nov '71	glc ms "	4 20
Di-t-butyl-p-cresol		CEN	SF.R	Jun '72	glc ms	
2,5-Di-butyl-4-ethoxyphenol		KK	SF.R5		glc ms	148
2,6-Di-t-butyl-4-ethylphenol		KK	SF.R5		glc ms	148
2,6-Di-t-butyl-2-hydroxyethylphenol		KK	SF.R5		glc ms	148
1,2-Bis-(3,5-di-t-butyl-4-hydroxyphenyl)ethane		KK	SF.R5	Nov '71	glc ms	4
Bis(3,5-di-t-butyl-2-hydroxyphenyl)methane		KK	SF.R5		glc ms	148
Bis(3,5-di-t-butyl-4-hydroxyphenyl)methane		KK	SF.R5	Nov '71	glc ms	4
2,6-Di-t-butyl-4-methoxyphenol		KK	SF.R5		glc ms	148
2,6-Di-t-butyl-4-methylphenol		*	T11	Apr '72	glc ms	135
*		KK	SF.R5		"	148
*	10.0 x 10 <sup>-6</sup>	RLD	"			
2,5-Dimethylphenol		EPA	E.I12		glc ms	48
3,4-Dimethylphenol		EPA	E.I12		glc ms	48
3,5-Dimethylphenol		EPA	E.I12 SF.R36		glc ms pc	48 71
Dimethyl quinoline isomers	0.1 x 10 <sup>-3</sup>	EPA	E.I9		glc ms	2

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Dimethyl-p-quinone		EPA	E.I12		glc ms	48
o-Ethylphenol	1-25 x 10 <sup>-3</sup>		E.I12		glc	70
m-Ethylphenol	11-71 x 10 <sup>-3</sup>	EPA	E.I5 E.I12		glc ms glc	2 70
p-Ethylphenol	2-112 x 10 <sup>-3</sup>		E.I12		glc	70
Gallic acid			SF.R5		pc	72
Guaiacol	0.43 x 10 <sup>-3</sup>	EPA " "	E.I5 SF.R19/ 5 T1 SF.R36 SF.R5 SF.R	1972	glc ms " pc " glc ms	2,20 2 36 71 72 53
Hydroxybenzoic acid			SF.R5		pc	72
3-Hydroxybenzoic acid	~ 40 x 10 <sup>-6</sup>	EPA	E.D1		hplc	
4-Hydroxybenzoic acid		EPA	E.D1		hplc	
Hydroxybiphenyl isomer		EPA	E.I10		glc ms	2
4-Hydroxyphenylacetic acid	190 x 10 <sup>-6</sup>	EPA	E.D1		hplc	
3-Hydroxyphenylhydracrylic acid	10 x 10 <sup>-6</sup>	EPA	E.D1		hplc	
3-Hydroxyphenylpropionic acid	~20 x 10 <sup>-6</sup>	EPA	E.D1		hplc	
3-Methylcatechol	up to 1.900		E.I12		glc	70
4-Methylcatechol	up to 1.200		"		glc	"
Methyl quinoline isomers	0.5 x 10 <sup>-3</sup>	EPA	E.I10		glc ms	2
Naphthols	1 x 10 <sup>-9</sup>	CEN	SF.R SF.R5 SF.R1	Jun '72 Aug '72	glc ms pc tlc	72

Substance (1)	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
1-Naphthol		EPA	E.I12		glc ms	48
2-Naphthol			SF.R36 SF.R		glc tlc	58 73
Nonylphenol		EPA	SF.R/I14,25 T11	Apr '72	glc ms "	48 135
o-Nonylphenol	* $3 \times 10^{-3}$	EPA	SF.R24			?
p-Nonylphenol	* $10 \times 10^{-6}$	RID	SF.R5			
Octylphenol		EPA	SF.R/I14,25		glc ms	48
Phenol	$0.2 \times 10^{-3}$	EPA	E.I8 SF.R5 SF.R36		glc ms pc "	20 72 71
	$6.0 \times 10^{-3}$	WRC CEN	LF SF.R	1973/74 1972	glc glc ms	53
	$0.01-1.0 \times 10^{-6}$	EPA " "	SF.R1 LF E.I12 E.D1 SF.R5/E.I	Aug '72	tlc glc ms " "	20 48 2 122
	$0.06 \times 10^{-3}$	EPA	E.I8		glc ms	20
	* $0.10 \times 0.23$	RID	T6			
	$0.2 \times 10^{-3}$	EPA	E.I8		glc ms	2
	$0.66 \times 10^{-3}$	"	E.I9		"	"
	$0.06 \times 10^{-3}$	"	E.I23		"	"
		"	E.I5		"	"
	$0.825-2.29$	"	E.I12 E.D3		glc glc ms	70 133
Phenyl phenol isomers		CEN RID	SF.R SF.R5	June '72	glc ms	
o-Phenyl phenol	* $0.1 \times 10^{-6}$	EPA	SF.R/I14 T11	Apr '72	glc ms "	2 135

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Phloroglucinol			SF.R5 SF.R		pc tlc	72 73
Polyhydroxyphenols	$1 \times 10^{-9}$		SF.R1	Aug '72	tlc	
1-Propyl-p-phenols		KK	SF.R5	1970/71	glc ms	4,148
4-n-Propylphenol		EPA	E.I5		glc ms	2
Pyrocatechol			SF.R5 SF.R E.I23.		pc tlc	72 73 129
Quinoline	$1.5 \times 10^{-3}$	EPA	E.I9 SF.R17		glc ms "	2 29
Resorcinol	up to $150 \times 10^{-3}$		E.I12 SF.R5		glc pc	70 72
Salicylic acid		EPA	E.D1		glc ms	
Saligenin			SF.R5		pc	72
Tannic acid	$0.51-1.70 \times 10^{-3}$ $1.6 \times 10^{-3}$	WRC	E.D3 E.D3b	1972	c c	111
Thymol			SF.R5		pc	72
Total volatile phenols	$0.008-0.1 \times 10^{-3}$		SF.L5			130
2,4,6-Trimethylphenol *	$0.1 \times 10^{-6}$	RID	SF.R5			
Vanillin	0.02	EPA	E.I5		glc ms	2
2,3-Xylenol	$5-117 \times 10^{-3}$		E.I12		glc	70



Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
2,4-Xylenol	$0.1 \times 10^{-3}$	WPRL	LF		glc	
2,4- & 3,5-Xylenol	$41-242 \times 10^{-3}$		E.I12		glc	70
2,5-Xylenol	$0.82 \times 10^{-3}$ $10-57 \times 10^{-3}$	EPA	E.I9 E.I12		glc ms glc	2 70
2,6-Xylenol	$0.3 \times 10^{-3}$ $4-138 \times 10^{-3}$	WPRL	LF E.I12		glc "	70
3,4-Xylenol	$0.5 \times 10^{-3}$ $5-60 \times 10^{-3}$	EPA	E.I9 E.I12		glc ms glc	2 70
3,5-Xylenol	$1.5 \times 10^{-3}$ $0.3 \times 10^{-3}$	EPA WPRL	E.I9 LF		glc ms glc	2

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<b>HETEROCYCLICS</b>						
Alkyl pyridines						
Barbital *		EPA	SF.R17 T12		glc ms glc ms <sup>2</sup>	29 154
Benzofuran		KK	SF.R5	1970/71	glc ms	4,148
Caffeine	$\sim 10 \times 10^{-6}$	EPA	E.D1		hplc uv	74
Carbazole	$0.3 \times 10^{-3}$	EPA	E.I9 SF.R17		glc ms "	2 29
Dibenzofuran	$0.12 \times 10^{-3}$	EPA " "	E.I9 E.I18. SF.R11		glc ms " "	2 " 20
Dibenzofuran isomer		EPA	E.I8		glc ms	2
3,3-Dimethyl oxindole		KK	SF.R5	1970/71	glc ms	4
Dimethyl pyridine isomer	$0.1-0.2 \times 10^{-3}$	EPA	E.I9		glc ms	2
1,7-Dimethylxanthine		EPA	E.D1		hplc uv	74
Indican	$\sim 2 \times 10^{-6}$	EPA	E.D1		af glc hplc	
Indole			SF.R SF.R5/E.D3		pc	72 122
Indole acids			SF.R5		pc	72
Inosine		EPA	E.D1		hplc uv glc ms	74
2,5-Lutidine			SF.R5		glc ms	23
2-Methyl-4-ethyl-dioxolane		EPA	E.I26		glc ms	2
2-Methyl-5-ethylpyridine	$6.2 \times 10^{-6}$		SF.R10		glc ir	25
Methylethylpyridine *	$1.0 \times 10^{-6}$	RID	SF.R5			
3-Methylindole		EAWAG	SF.R5 E.D3	Apr '74	pc glc ms	72 124

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
1-Methylinosine		EPA	ED.1		hplc	
Methylpropylpyridine		KK	SF.R5	Nov '71	glc ms	4
Methyl pyridine		EPA	SB/LF		glc ms	147
1-Methylxanthine	$17 \times 10^{-6}$	EPA	E.D1		hplc uv	74
3-Methylxanthine		EPA	E.D1		hplc uv	74
7-Methylxanthine	$\sim 90 \times 10^{-6}$	EPA	E.D1		hplc uv	74
Pentylpyridine			SF.R5		glc ms	23
$\beta$ -Picolypropylether		KK	SF.R5	Nov '71	glc ms	4,148
Piperdine *			T10		glc ms	134
Pyridine	$5-17.4 \times 10^{-3}$ $15.0-23.4 \times 10^{-3}$		E.I23 E.I12 SF.R5/E.I			75 " 122
Pyrrole			SF.R5/ED3			122
Skatole acetic acid			SF.R5		pc	72
Theobromine		EPA	E.D1		hplc	74
Trimethylindole			SF.R17		glc ms	29
2,4,6-Trimethylpyridine	$0.3 \times 10^{-3}$	EPA	E.I9		glc ms	2
Trimethyltrioxohexahydro- triazine *	$0.07 \times 10^{-6}$	EPA	T1			
Thymine	$\sim 7 \times 10^{-3}$	EPA	E.D1		hplc glc	
Uracil	$13 \times 10^{-6}$	EPA	E.D1		hplc	74

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Uric acid	20 x 10 <sup>-6</sup> 10 x 10 <sup>-6</sup>	EPA	E.D1 E.D3		uv glc ms hplc uv glc	76
Xanthine	70 x 10 <sup>-6</sup>	EPA	E.D1		hplc ms	74

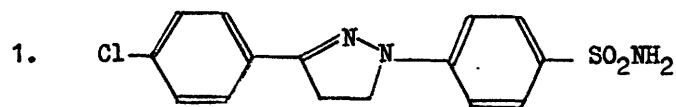
Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
<b><u>SURFACTANTS</u></b>					
<b>Alkyl benzene sulphonate, (ABS)</b>					
	3.5-100 x 10 <sup>-3</sup>		SF.R57		77
	0.5 x 10 <sup>-3</sup>		SF.R58		78
	10 x 10 <sup>-3</sup>		SB4		79
	up to 0.14x10 <sup>-3</sup>		SF.R59,T7	up to 1961	"
	up to 0.6 x10 <sup>-3</sup>		SB5		83
	0.01-3 x 10 <sup>-3</sup>		SF.R60		84
	0.5 x 10 <sup>-3</sup>		"		85
	1.0-11 x 10 <sup>-3</sup>		SF.R61		86
	0.1 x 12 x 10 <sup>-3</sup>		SF.R36		"
	4-45 x 10 <sup>-3</sup>		E.D1 (USA)		"
	14-17 x 10 <sup>-3</sup>	WPRL	E.D1		80
	13.1 x 10 <sup>-3</sup>	"	E.D2		"
	1.45 x 10 <sup>-3</sup>	"	E.D3b		"
	12.0 x 10 <sup>-3</sup>		E.D3		81
	1.5-12.5 x 10 <sup>-3</sup>		"		82
	3.08-3.5 x 10 <sup>-3</sup>		E.D1 (Fr.)		32
	1-15 x 10 <sup>-3</sup>		E.D1 (USA)		"
	0.7-4.5 x 10 <sup>-3</sup>		SF.R62		"
	0.125 x 10 <sup>-3</sup>		SF.R9		"
	0.03 x 10 <sup>-3</sup>		SF.R63		"
	up to 1.11x10 <sup>-3</sup>		SF.R19	1963/64	87
	23.2-33.6 x10 <sup>-3</sup>		E.D1 (It.)	1962	88
	5.4 x 10 <sup>-3</sup>		E.D1 (Ger)	pre. LAS	89
	0.06-0.15x10 <sup>-3</sup>		SF.R36	1965	"
	0.01-0.02x10 <sup>-3</sup>		SF.R59		"
	3.0 x 10 <sup>-3</sup>		E.D3 (UK)	'62(preLAS)	"
	1.3 x 10 <sup>-3</sup>		"	'65(postLAS)	"
	5.0 x 10 <sup>-3</sup>		E.D3a (USA)	up to '65	"
	0.7 x 10 <sup>-3</sup>		"	post '65	"
<b>ABS (linear)</b>					
	<0.01 x 10 <sup>-3</sup>		SF.R60		90
	<0.01 x 10 <sup>-3</sup>		SF.R59		91
<b>ABS + linear alkyl sulphonates</b>					
	0.06-0.15x10 <sup>-3</sup>		SF.R36		89
	0.01-0.02x10 <sup>-3</sup>		SF.R59	pre '60	"
	0.5-1.3 x 10 <sup>-3</sup>		SF.R60	1959	"
	0.056 x 10 <sup>-3</sup>		"	1959-65	"
	0.022 x 10 <sup>-3</sup>		"	1965/66	"
	15-34 x 10 <sup>-6</sup>		T8	1959/60	92
	<0.5 x 10 <sup>-3</sup>		SF.R59		"

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Anionic detergent	$1.5-12.5 \times 10^{-3}$		E.D3		c	111
Anionic detergents (as Manoxol OT)	$1 \times 10^{-3}$	WRC	E.D3b	Jan '71	c	
Dodecyl benzene sodium sulphonate	$.02-.10 \times 10^{-3}$		SF.R1	Sept '72	tlc	
Dodecyl bezene sulphonic acid	$.02-1.0 \times 10^{-3}$		SF.R1	Sept '72	tlc	
Non-ionic detergent (as Lissapol NX)	$0.53 \times 10^{-3}$	WRC	E.D3b	Jan '71	tlc	

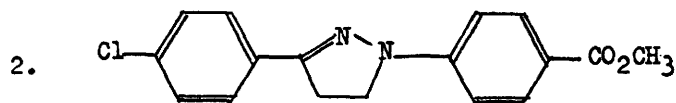
Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<b>OPTICAL BRIGHTENERS</b>						
(see Fig. 1 for molecular structures)						
A 1 Pyrazoline type A	<10 <sup>-12</sup>	WPRL	E.D3b	Jun '72	tlc	
2 Pyrazoline type B	<10 <sup>-12</sup>	WPRL	E.D3b	Jun '72	tlc	
3 Coumarin type	0.3 x 10 <sup>-9</sup>	WPRL	E.D3b	Jun '72	tlc	
4 Thiophene type	<10 <sup>-12</sup>	WPRL	E.D3b	Jun '72	tlc	
5 Coumarin triazole type	<10 <sup>-12</sup>	WPRL	E.D3b	Jun '72	tlc	
6 Quinoline type	<10 <sup>-12</sup>	WPRL	E.D3b	Jun '72	tlc	
B 7 p-Aminostilbene type	~0.8 x 10 <sup>-6</sup>	WPRL	E.D3b	Jun '72	tlc	
8 "	~0.3 x 10 <sup>-6</sup>	WPRL	E.D3b	Jun '72	tlc	
9 "	~0.1 x 10 <sup>-6</sup>	WPRL	E.D3b	Jun '72	tlc	
p-Aminostilbene types 7, 8 and 9						
Total trans-isomer	0.8 x 10 <sup>-6</sup>	WPRL	E.D3b	Jun '72	sf	
Total cis-isomer	0.4 x 10 <sup>-6</sup>	WPRL	E.D3b	Jun '72	sf	
Total	1.2 x 10 <sup>-6</sup>	WPRL	E.D3b	Jun '72	sf	
Total fluorescing material (as Blankophor MBHH, B in Fig. 1)	0.12 x 10 <sup>-3</sup>	WPRL	E.D3b	Jun '72	fp	
2,5-Di-(benzoxazole-2-yl)thiophene	40 x 10 <sup>-3</sup> up to 2 x 10 <sup>-3</sup>		S.SS S.F(liver)		tlc ms nar "	93 "

Fig. 1. Structural Formulae of Optical Brighteners

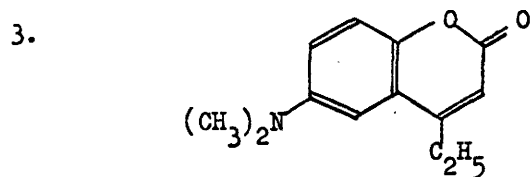
A. Textile finishers



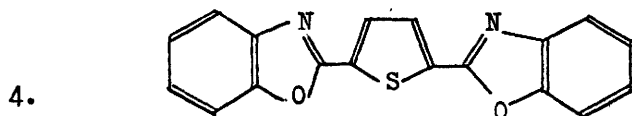
Pyrazoline type



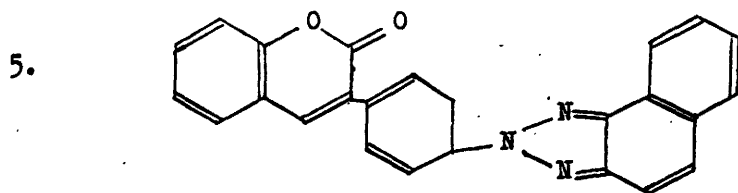
Pyrazoline type



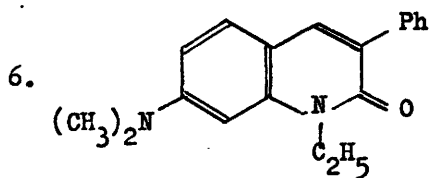
Coumarin type



2,5-di-  
(benzoxazol-2-yl)  
thiophene



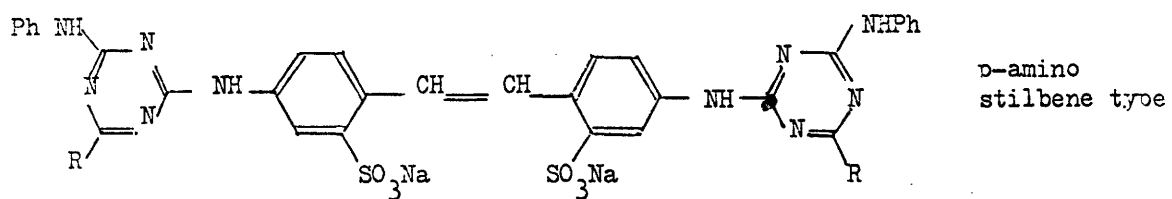
Coumarin-triazole type



Quinoline type



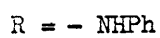
B) Cotton fluorescers



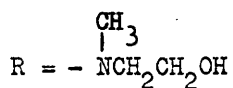
7. Type A - Dimorpholino



8. Type B - Tetra-anilino



9. Type C - Di-N-methylethanolamino



Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<u>ETHERS, ALDEHYDES AND KETONES:</u>						
Acetone	* $1.0 \times 10^{-6}$	RID EPA GEN	SF.L16 T1 SF.R SF.R5/E.I E.I23	June '72	glc ms glc ms	36 122 146
Acetophenone	$41 \times 10^{-6}$ $0.29 \times 10^{-3}$	EPA " "	SF.R10 T1 E.I13 E.I8		glc ir glc ms "	25 36 2 "
Acetosyringone	$0.14 \times 10^{-3}$	EPA	E.I5		glc ms	2
Acetovanillone	$0.025 \times 10^{-3}$	EPA	E.I5		glc ms	2
Anethole isomers		EPA "	E.I5 SF.R19/I5		glc ms "	2 "
Benzaldehyde		EPA	E.I5		glc ms	2
Benzophenone	* $1.0 \times 10^{-6}$		T6			
Benzyl ether	* $1.0 \times 10^{-6}$	RID	SF.R5			
2-Butanone	* $1.0 \times 10^{-6}$		E.I23 T10		glc ms "	146 134
2-Butoxyethanol		EPA	E.I		glc ms	48
1-(2-Butoxyethoxy)ethanol	*	EPA	T12		glc ms	154
t-Butyl acetophenone			SF.L1	1973	glc ms	10,123
p-t-Butyl acetophenone	* $1.0 \times 10^{-6}$	RID	E.D3			

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Camphor		EPA	T1, E.I5		glc ms	24
	$30 \times 10^{-6}$	"	E.I5		"	
*	$0.9 \times 10^{-6}$	EPA	SF.R19/E.I5 SF.L1, T3, SB6] 1973 SF/LF		"	10,123 147
$\alpha$ -Camphanone		EPA	T1		glc ms	36
			SF.L1		glc ms	10
Cyclocitral			SF.L1	1973	glc ms	10,123
Cyclohexanone	* $1.0 \times 10^{-6}$	RID	SF.R5			
	* $0.1 \times 10^{-6}$	"	T6			
Cyclohexylether	* $0.5 \times 10^{-6}$	"	"			
Diacetone alcohol	* $10.9 \times 10^{-6}$	EPA	E.I5		glc ms	48
		"	SB/LF		"	147
Dibutoxyethoxyethoxymethane	*	EPA	T12		glc ms	154
Didecylether			SF.R5		glc ms	23
1,1-Diethoxypropane		EPA	SF.R19		glc ms	2
		"	SF.R19/E.I5		"	"
Diethylether		GEN	SF.R	1972	glc ms	
Dihydrocarvone	* $0.14 \times 10^{-6}$	EPA	T1			
3,4-Dihydroxyacetophenone		EPA	E.I5		glc ms	20
Dimethoxyacetophenone	*		T11		"	135
3,4-Dimethoxyacetophenone	*	EPA	E.I5		glc ms	20
			"		"	159
3,4-Dimethoxybenzaldehyde		EPA	E.I5		glc ms	20

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Dimethoxy benzene		EPA	T1			36
3,4-Dimethoxyethylbenzene		EPA	E.I5		glc ms	20
3,5-Dimethoxy-4-hydro		EPA	E.I5		glc ms	2
3,4-Dimethoxypropiophenone		EPA	E.I5		glc ms	20
Diphenylene oxide *		KK	SF.R5		glc ms	148
Diphenylether		KK	SF.R17 SF.R5 T3 & SF.L1 SF.L1	1970/71	glc ms " " "	29 4,148 22 10
		EPA	E.I10		"	2
		"	SF.R11/E.I10]		"	20
	* $0.2 \times 10^{-6}$		SF.R15		"	23
	* $0.1 \times 10^{-6}$	RID	SF.R5 T6			141
Diphenyl-phenylether		KK	SF.R5	1970/71	glc ms	4,148
Ditolylether		KK	SF.R5 SF.R17	1970/71	glc ms "	4,148 23
2-Ethoxyethanol *			E.I23		glc ms	146
Ethyl acetophenone *			T11		glc ms	135
Ethyl benzylether *	$1.0 \times 10^{-6}$	RID	T6			
Fenchone		EPA	E.I5		glc ms	2
	* $50 \times 10^{-6}$	RID	E.I23			
	* $0.2 \times 10^{-6}$	EPA	SB/LF		glc ms	147
Furfural		EPA	E.I5		glc ms	2
	$0.002 \times 10^{-3}$	"	E.I16		"	"
	$1.7 \times 10^{-6}$	"	"		"	20

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) Refer- ences	
		Labora- tory	Type (2) of sample	Date (3) of Sampling		Analysis (4) and/or Estimation
Hexadieneal		EPA	E.I10		glc ms	2
p-Hydroxyacetophenone		EPA	E.I5		glc ms	2
p-Hydroxybenzaldehyde		EPA	E.I5		glc ms	2
4-Hydroxy-3-methoxypropiofenone		EPA	E.I5		glc ms	2
$\alpha$ -Hydroxy- $\alpha$ -methyl-2-pentanone * $1.0 \times 10^{-3}$		RIV	E.I23			
bis-2-Hydroxypropylether *		EPA	SB/LF		glc ms	147
1-Idanone		EPA	LF		glc ms	20
Isobutanal			T2		glc ms	9
Iso-octenone			SF.L1 & T3		glc ms	22
Isophorone * $2.9 \times 10^{-6}$		EPA	T1			
4-Methoxybenzaldehyde		EPA	E.I5		glc ms	20
1-Methoxy-4-pentylbenzene		EPA	E.I5		glc ms	20
1-Methoxy-4-(1-propenyl)benzene		EPA	E.I5		glc ms	20
p-Methoxypropiofenone		EPA	E.I5		glc ms	20
Methyl 3,4-dimethoxybenzoate		EPA	E.I5.		glc ms	20
Methyl 3,4-dimethoxybenzyl ether		EPA	E.I5		glc ms	2
Methyl 2-pentalone			SF.L1		glc ms	10

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
n-Nonyl aldehyde		EPA	SF.R19/E.I5		glc ms	2
Norcamphor		EPA	E.I5		glc ms	2
Paraldehyde			T3 & SF.L1		glc ms	22
Phenyl ether	0.05 x 10 <sup>-3</sup>	EPA	T & SF.R E.I18		glc ms	38 2
Propyl phenyl ether		KK	SF.R5	1970/71	glc ms	4, 148
Quaicol methyl ether *			E.I5		glc ms	159
Syringaldehyde	0.01 x 10 <sup>-3</sup>	EPA	E.I5		glc ms	2
Total aldehydes (as formaldehyde) * 0.11 x 10 <sup>-3</sup>			SF.L10			131
3,4,5-Trimethoxyacetophenone		EPA "	E.I5 "		glc ms "	2 20
Vanillin methyl ether *			E.I5		glc ms	159
Veratraldehyde		EPA	E.I5		glc ms	2
Veratrole		EPA	T1		glc ms	24

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	
<u>ACIDS</u>					
6,8,11,13-Abietatetraen-18-oic acid		EPA	E.I5		glc ms 2
13-Abieten-18-oic acid		EPA	E.I5		glc ms 2
Abietic acid		EPA	E.I5		glc ms 2
		"	"		" 20
*			T10		glc ms 134
*			E.I23		" 146
Acetic acid					
	25.2 x 10 <sup>-6</sup>		SF.R36		glc 94
	540 x 10 <sup>-3</sup>	WRC	LF		"
	2-120 x 10 <sup>-6</sup>		SF.L5		lc 95
	10 x 10 <sup>-3</sup>	WRC	SF.R19,36		pc lc 96
		EPA	E.D1		lc 80
*	0.19 x 10 <sup>-3</sup>	WRC	SB/LF	1974	glc ms 147
*		WRC	E.D3b		glc
Adipic acid					
	3.7 x 10 <sup>-3</sup>	EPA	E.I18		glc ms 2
			SF.R59		glc 97
Anteismargaric acid					
		EPA	E.I5		glc ms 2
		"	E.D1		glc
		"	E.D3a		"
Anteispentadecanoic acid					
		EPA	E.I5		glc ms 2
		"	E.D1		glc
Arachidonic acid					
		EPA	E.I5		glc ms 2
Benzoic acid					
		EPA	SF.R36		glc 58
			E.D1		hplc glc ms
			SF.R5		pc 72
Butyric acid					
*	0.18 x 10 <sup>-6</sup>		E.I23		glc ms 146
			SF.R36		94
			SF.R59		glc 97
		EPA	E.D1		"
			SF.R5/E.D3		122
	1.0 x 10 <sup>-3</sup>	WRC	E.D1		lc 80
*	1.5 x 10 <sup>-6</sup>	EPA	SB/LF		glc ms 147

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) Refer- ences	
		Labora- tory	Type (2) of sample	Date (3) of Sampling		Analysis (4) and/or Estimation
l-Butyric acid	27 x 10 <sup>-3</sup>	WRC	LF		glc	94
	0.2-1.3x10 <sup>-6</sup>	EPA	SF.R36		"	
	* 48.7 x 10 <sup>-6</sup>	"	E.D1		"	147
	* <20 x 10 <sup>-6</sup>	WRC	SB/LF E.D3b	1974	glc ms glc	
n-Butyric acid	110 x 10 <sup>-3</sup>	WRC	LF		glc	95
	up to 7.5x10 <sup>-6</sup>		SF.L5		lc	
	0.1-0.4x10 <sup>-6</sup>	SF.R36		glc	94	
* 5 x 10 <sup>-6</sup>	WRC	"	E.D3b	1974	"	58



Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Caproic acid	220 x 10 <sup>-3</sup>	EPA	E.I18 SF.R36		glc ms glc	2 58
	2.5 x 10 <sup>-6</sup>		SF.R36			94
	* 1.1 x 10 <sup>-6</sup>	EPA	SF.R59 SB/LF		glc glc ms	97 147
i-Caproic acid	* <2 x 10 <sup>-6</sup>	WRC	E.D3b	1974	glc	
n-Caproic acid	* 5 x 10 <sup>-6</sup>	WRC	E.D3b	1974	glc	

Substance	Concentration (g/l-waters) (mg/kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
i-Caproic acid	$<10 \times 10^{-3}$	WRC	LF		glc	
n-Caproic acid	$17 \times 10^{-3}$	WRC	LF		glc	94
Crotonic acid	$0.3-6.2 \times 10^{-6}$		SF.R36		"	
Cyclohexanecarboxylic acid	$32 \times 10^{-3}$	WRC	LF		glc	
* 2.8 x 10 <sup>-6</sup>		EPA	SB/LF		glc ms	147
Decanoic acid (capric)		EPA	E.I5		glc ms	20
* E.D1		"	E.D1		glc	133
Dehydroabiatic acid			E.D3		glc ms	
20 x 10 <sup>-6</sup>		EPA	E.I9		glc ms	2
0.4 x 10 <sup>-3</sup>		"	E.I5		"	"
		"	E.I8		"	"
		"	SF.R/E.I5		"	20
10,12-Dimethyl tridecanoic acid		EPA	E.I5		glc ms	2
Docosanic acid (C <sub>22</sub> , behenic)	$0.1 \times 10^{-6}$	EPA	E.D3a		glc	23
		EPA	SF.R5		glc ms	
		EPA	E.I5		"	2
Dodecanoic acid (lauric)			SF.R5		glc ms	23
		EPA	E.I5		"	20
	$0.5 \times 10^{-6}$	"	E.D1		glc	
	$0.3 \times 10^{-6}$	"	E.D3a		"	
		"	E.D7		"	
* E.D3			E.D3		glc ms	133
Eicosanoic acid (C <sub>20</sub> , arachidic)		EPA	SF.R/I5		glc ms	2,20
			SF.R5		"	23
2-Ethylhexanoic acid	$0.3 \times 10^{-6}$	EPA	E.D1		glc	147
* 4.2 x 10 <sup>-6</sup>		EPA	SB/LF		glc ms	
Fumaric acid			SF.R59		glc	97
Formic acid			SF.R36		glc	94
	$10-24 \times 10^{-6}$		SF.L5		lc	95
	$3-18 \times 10^{-6}$		SF.R19,36		lc pc	96
Fulvic acid	$0.3-29.0 \times 10^{-6}$		T5		uv	98
Glutamic acid	$10 \times 10^{-6}$	WRC	E.D3b	Jan '73	hplc o	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Heptadecanoic acid (C <sub>17</sub> ) margaric	0.5 x 10 <sup>-6</sup> 0.2 x 10 <sup>-6</sup>	EPA " " "	E.I5 E.D1 E.D3a E.D7		glc ms glc " "	2
Heptanoic acid *	1.0 x 10 <sup>-6</sup>	EPA "	SB/LF E.I5 SF.R36		glc ms " glc "	147 20 58
Higher fatty acids (as C)	71-74 x 10 <sup>-3</sup>	EPA WRC	E.D1			80
Hippuric acid	2 x 10 <sup>-6</sup>	WRC	E.D3b	Jan '73	hplc c	
Homovanillic acid		EPA	E.I5		glc ms	2
Humic acid	~20-50x10 <sup>-3</sup> 1 x 10 <sup>-3</sup>	SLEE "	SB T	Feb '73 Jan '73	ir "	
β-Hydroxymyristic acid	>0.1 x 10 <sup>-6</sup>	EPA	E.D1 & 7		glc	
β-Hydroxypalmitic acid	>0.1 x 10 <sup>-6</sup>	EPA	E.D7		glc	
β-Hydroxystearic acid	>0.1 x 10 <sup>-6</sup>	EPA	E.D1		glc	
Isobutyric acid	0.3 x 10 <sup>-6</sup>		SF.R			94
Isopalmitic acid		EPA	E.I5		glc ms	2
Isopimaric acid		EPA "	E.I5 SF.R/I5		glc ms "	2 20
Isovaleric acid	0.22 x 10 <sup>-6</sup>		SF.R			
Lactic acid			SF.R59 SF.R19,36		glc lc pc	97 96
Lignoceric acid		EPA	E.I5		glc ms	20
Linoleic acid		EPA	E.I5		glc ms	2

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Maleic acid			SF.R59		glc	97
Malonic acid			SF.R59		glc	97
Mandelic acid		EPA	E.I5		glc ms	2
13-Methylpentadecanoic acid		EPA	E.I5		glc ms	2
Myristic acid		SF.R5	E.I5		glc ms	23
		"	"		"	2
		"	"		"	20
		WRC	E.D3b	Nov '72	"	
		EPA	E.D1		glc	
		"	E.D3a		"	
		"	E.D7		"	
			E.D3		glc ms	133
2-Naphthoic acid *						
	$5 \times 10^{-6}$					
	$1.3 \times 10^{-6}$					
	$0.5 \times 10^{-6}$					
	$0.1 \times 10^{-6}$					
		EPA	E.I9		glc ms	2
Neoabietic acid	$0.16 \times 10^{-3}$					
		EPA	E.I5		glc ms	2
Nonadecanoic acid, (C <sub>19</sub> )						
		EPA	E.D1		glc	
Nonanoic acid, (pelargonic)						
			SF.R5		glc ms	23
		EPA	E.I5		"	20
			E.D3		"	133
Octanoic acid, (caprylic) *						
		EPA	E.I5		glc ms	20
			SF.R36		glc	58
			SF.R5		glc ms	23
		EPA	ED.1		glc	
		"	SB/LF		glc ms	147
Oleic acid						
		EPA	E.I5		glc ms	2
			SF.R5		"	23
		EPA	E.I8		"	"
		WRC	E.D3b	Nov '72	"	
		EPA	E.D1		glc	
		"	E.D3a		"	
		"	E.D7		"	
Oxalic acid						
			SF.R59		glc	97

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Palmitic acid	50 x 10 <sup>-6</sup>	WRC	SF.R5	Nov. '72 1972	glc ms	23
		CEN	E.D3b		"	
		EPA	SF.R		"	2
		"	E.I14		"	"
	13 x 10 <sup>-6</sup>	"	E.I8		"	"
		"	E.I5		"	20
	28 x 10 <sup>-6</sup>	"	SF.R/E.I5	"		
	6 x 10 <sup>-6</sup>	"	E.D1	glc		
	0.6 x 10 <sup>-6</sup>	"	E.D3a	"		
*		"	E.D7	"		
		"	E.D3	glc ms	133	
Palmitoleic acid	0.5 x 10 <sup>-6</sup>	EPA	E.D1		glc	
	0.4 x 10 <sup>-6</sup>	"	E.D7		"	
		"	E.I5		glc ms	2
Pentadecanoic acid			SF.R5		glc ms	23
		EPA	E.I5		"	2
	0.3 x 10 <sup>-6</sup>	"	E.D1		glc	
	0.3 x 10 <sup>-6</sup>	"	E.D3a		"	
	*		"	E.D7	"	
		"	E.D3	glc ms	133	
Phenylacetic acid	~10 x 10 <sup>-6</sup>	EPA	E.D1		hplc glc	
		"	E.D3a		glc	
		"	E.D7		"	
Phenylpropionic acid		EPA	E.D1		glc	
o-Phthalic acid	200 x 10 <sup>-6</sup>	EPA	E.D1		hplc uv ms	23
			SF.R5		glc ms	
Phthalic anhydride	1.0 x 10 <sup>-6</sup>	EPA	T12		glc ms	154
		RID	T6			
Pimaric acid	0.12 x 10 <sup>-3</sup>	EPA	E.I5		glc ms	2
			"	SF.R/E.I5		
Propionic acid	215 x 10 <sup>-3</sup>	WRC	LF		glc	
	up to 7x10 <sup>-6</sup>		SF.L5		lc	95
	0.1-0.8x10 <sup>-6</sup>		SF.R36		glc	94
	2.6 x 10 <sup>-3</sup>	WRC	E.D1		lc	80
	70 x 10 <sup>-6</sup>		E.D3b	1974	glc	
	*		E.I23		glc ms	146

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References	
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation		
Stearic acid	0.02 x 10 <sup>-3</sup>	EPA	E.I5	Nov '72	glc ms	2	
		"	E.I14		"	"	"
	0.1 x 10 <sup>-3</sup>	"	SF.R/E.I5		"	"	20
		WRC	E.D3b		"	"	
	32 x 10 <sup>-6</sup>	EPA	SF.R5		glc ms		23
	10 x 10 <sup>-6</sup>	"	E.D1		glc		
	0.3 x 10 <sup>-6</sup>	EPA	E.D3a	"	"		
*		EPA	E.D7	glc			
			E.D3	glc ms		133	
Succinic acid			SF.R59		glc	97	
Total organic acids (as equiv./l)	12-420 x 10 <sup>-6</sup>		SF.R16,L5			32	
Total soluble acids (as C)	21.0-34.5x10 <sup>-3</sup>	WRC	E.D1			80	
(as C)	1.78 x 10 <sup>-3</sup>	"	E.D3b			"	
Tannins (as tannic acid)	1.6 x 10 <sup>-3</sup>	WRC	E.D3b	Jan '72	c		
Terephthalic acid	0.1 x 10 <sup>-3</sup>		SF/E.I			99	
Tetracosanic acid, (C <sub>24</sub> , lignoceric)		EPA	SF.R/E.I5		glc ms	2	
Toluic acid	0.24 x 10 <sup>-3</sup>	EPA	E.I13		glc ms	2	
Undecanoic acid		EPA	E.I5		glc ms	20	
			SF.R36		glc	58	
*			E.D3		glc ms	133	
Valeric acid	0.16 x 10 <sup>-6</sup>		SF.R				
	0.5	EPA	E.I18		glc ms	2	
	0.4 x 10 <sup>-3</sup>	WRC	E.D1		lc	80	
	1.1 x 10 <sup>-6</sup>	EPA	SB/LF		glc ms	147	
i-Valeric acid	52 x 10 <sup>-3</sup>	WRC	LF		glc		
	0.1-1.7x10 <sup>-6</sup>		SF.R36		"	94	
		EPA	E.D1		"		
*	0.7 x 10 <sup>-6</sup>	"	SB/LF		glc ms	147	
*	2.5 x 10 <sup>-6</sup>	WRC	E.D3b	1974	glc		

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
n-Valeric acid	55 x 10 <sup>-3</sup> 0.1-0.3 x 10 <sup>-6</sup>	WRC	LF SF.R36 SF.R59	1974	glc " "	94 97
* *	2.5 x 10 <sup>-6</sup>	WRC	E.D3b E.I23		glc ms	146

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<b>ESTERS</b>						
6,8,11,13-Abietatetraen-18-oate		EPA	SF.R/E.I5		glc ms	20
Benzyl butyl phthalate		EPA	SB/LF		glc ms	141
*		"	T12		"	154
*		EAWAG	T3, SB6, SF.R69		"	136
*	0.81 x 10 <sup>-6</sup>	EPA	T1			
n-sec-Butyl acetate		RID	SF.L16			
*	5.0 x 10 <sup>-6</sup>	"	T6			
*	0.5 x 10 <sup>-6</sup>					
n-Butyl benzoate	0.1-0.5x10 <sup>-6</sup>		SF.R25/I21	1972-73	glc ms	68
Butylcarbobotoxymethyl phthalate		EPA	SB/LF		glc ms	147
Dialkyl phthalate			T & SF.L1		glc ms	22
Dibutyl phthalate			SF.R25/I.21	1972-73	glc ms	68
		KK	SF.R5	1970-71	"	4,148
			SF.R12		"	5
	0.2-2 x 10 <sup>-3</sup>	WRC	E.D3b	Nov. '72	"	
	5 x 10 <sup>-6</sup>	"	SF.R6	Sept. '72	"	
		EPA	LF		"	20
	0.35 x 10 <sup>-3</sup>		SF.R66		glc	100
*	ND - 0.1	EPA	S.F.-SF.L6	1971-72	"	158
*	10.0 x 10 <sup>-6</sup>	RID	SF.R5			
*	0.19 x 10 <sup>-6</sup>	EPA	T1			
*	1.0 x 10 <sup>-6</sup>	RID	T6			
*		EPA	SB/LF		glc ms	147
*	ND-120 x 10 <sup>-3</sup>	"	S.SD-SF.L6	1971	glc	158
	up to 147x10 <sup>-6</sup>	"	SF.R60	1972	"	"
	55-250 x 10 <sup>-6</sup>	"	E.D3	"	"	"
	0.1 x 10 <sup>-3</sup>	SETUDE	SF.RL	1972-74	glc ms	
*			T10		"	134
*		EPA	T12		"	154
*		EAWAG	T3, SB6, SF. R69		"	136
Di-iso-butyl phthalate	~0.01-0.1x10 <sup>-6</sup>	SETUDE	SF.RL	1972-74	glc ms	
*	0.1 x 10 <sup>-6</sup>	EPA	SB/LF		"	147



Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Dicyclohexyl phthalate *	0.2 x 10 <sup>-6</sup>	EPA	SB/LF		glc ms	147
Diethyl phthalate *	4.1 x 10 <sup>-6</sup>	EPA	SB/LF		glc ms	147
	2.0 x 10 <sup>-6</sup>	RID	SF.R25/I21	1972-73	"	68
	0.03 x 10 <sup>-6</sup>	EPA	SF.R5			
	0.5&0.1x10 <sup>-6</sup>	RID	T1			
		EPA	T6		glc ms	154
		EPA	T12		"	136
		EAWAG	SB6, SF.R69			
Di-2-ethyl-n-butyl phthalate		EPA	LF		glc ms	20
Didecyl phthalate		WRC	E.D3b	Nov. '72		
Di-(2-ethylhexyl) adipate *		KK	SF.R5		glc ms	148
Di-(2-ethylhexyl)phthalate			SF.R12		glc ms	5
		WRA	SF.R25/I21	1972/73	"	68
		KK	SF.R6	Sept. '72		
		EPA	SF.R5	1970/71	glc ms	4, 148
		EPA	SF.R59		glc ms ir nmr	20
	ND-1.3	"	S.F.-SF.L6]	1971	glc	158
	0.31 x 10 <sup>-6</sup>	"	T1			
		"	T12		glc ms	154
	ND-218x10 <sup>-3</sup>	"	S.SD-SF.L6	1971	glc	158
	ND-760x10 <sup>-6</sup>	"	E.D3	"	"	"
Diethyl phthalate		EPA	E.I16		glc ms	2
		"	LF		"	20
Diheptyl phthalate		WRC	E.D3b	Nov. '72		
Dihexyl phthalate *	0.03 x 10 <sup>-6</sup>	EAWAG	T3, SB6, SF.R69]		glc ms	136
		EPA	T1			
Dimethyl phthalate		EPA	E.I31		glc ms	2
		"	E.I16		"	"

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Dinonyl phthalate		WRC	E.D3b	Nov. '72		
Di-octyl adipate	* 0.10 x 10 <sup>-6</sup>	EPA	T1			
Di-octyl phthalate	* 2.4 x 10 <sup>-6</sup> * ~0.1 x 10 <sup>-3</sup>	EPA SETUDE	SB/LF SF.RL	1972-74	glc ms "	147
		EAWAG	E.D3 T3, SB6, SF.R 69		" "	133 136
Di-n-octyl phthalate	* 0.1 x 10 <sup>-3</sup>	WRC RIV	E.D3b E.I23	Nov. '72		
Di-iso-octyl phthalate	0.1 x 10 <sup>-3</sup>	SETUDE	SF.RL	1972-74	glc ms	
1,3-Di-isopropylbenzene	* 0.1 x 10 <sup>-3</sup>	RID	E.I23			
Dipropyl phthalate	* 0.14 x 10 <sup>-3</sup>	KK EPA	SF.R5 T1	1970/71	glc ms	4, 148
Bis-(2-ethylhexyl)azelate		EPA	E.I5		glc ms	2
Ethylphenyl phthalate		EPA	E.I		glc ms	2
Fatty acid methyl esters		KK	SF.R5		glc ms	4
Iso-octyl phthalate		EPA	E.I18		glc ms	2
Methyl abietate	*		E.I5		glc ms	159
Methyl myristate	*	KK	SF.RF		glc ms	148
Methyl palmitate	*		SF.R5		glc ms	23
	*	EPA	T12		"	154
	*		T11		"	135
	*	KK	SF.R5		"	148

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences	
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation		
Methyl stearate	$2 \times 10^{-6}$	WRA	SF.R6	Sept. '72	glc ms	23	
*		EPA	SF.R5				154
*		KK	T12. SF.R5				148
Octyl butyl fumarate			T11		glc ms	135	
n-Octyl, 2-ethylhexyl phthalate		WRC	E.D3b	Nov. '72			
Pentadecanoic acid, methyl ester		KK	SF.R5		glc ms	148	
Phenyl benzoate		EPA	T12		glc ms	154	
Total phthalate esters	$0.88-1.9 \times 10^{-6}$	EPA	E.I SF.R12	May '72 1971/72	glc ms hplc	48 101	
		CEN	SF.R				
Triethylorthoformate			SF.R		glc ms	23	

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<u>ALCOHOLS</u>						
Benzyl alcohol		EPA "	E.I. E.I23		glc ms "	48 2
Borneol		EPA	E.I5		glc ms	20
1-Butanol	16 x 10 <sup>-3</sup>	EPA "	E.I23 E.I8		glc ms "	20 "
Butoxyethanol *		EPA	SB/LF		glc ms	147
2-Butoxyethanol		EPA	E.I23		glc ms	2
Caran-4-ol			SF.L1	1973	glc ms	10,123
Cineol			SF.L1, SB6	1973	glc ms	123
Cyclohexanol		KK EPA "	SF.R5 E.I18 SB/LF	Nov. '71	glc ms "	4 2 147
	* 1.0 x 10 <sup>-6</sup>	"	SF.R5			
	* 10 x 10 <sup>-6</sup>	RID	SF.R5			
	* 1.0 x 10 <sup>-6</sup>	"	T6			
1-Decanol	2.5 x 10 <sup>-3</sup> 2.5 x 10 <sup>-3</sup>	EPA "	E.I18 E.I23 SF.R5		glc ms " "	20 2 23
Di-isobutyl carbinol	27 x 10 <sup>-6</sup>		SF.R10		glc ir	25
3,3-Diphenylpropanol		EPA "	E.I E.I23		glc ms "	48 2
Endo-?-camphanol		EPA	T1			35
Ethanol		CEH	SF.R	June '72		

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Ethyl carbamate			E.I23		glc ms	146
*		EPA	SB/LF		"	147
2-Ethyl hexanol	41 x 10 <sup>-6</sup>	KK	SF.R10		glc ir	25
	19 x 10 <sup>-6</sup>	EPA	SF.R5		glc ms	4
		"	E.I5		"	2
		"	E.I31		"	"
*	13 x 10 <sup>-6</sup>	"	SF.R/E.I32 T11		"	135
Eugenol and isomers		EPA	E.I5		glc ms	2
Exo-2-camphanol		EPA	T1			36
Fenchyl alcohol		EPA	SF.R19/I5		glc ms	2
*	50 x 10 <sup>-6</sup>	"	E.I5		"	"
		RID	E.I23			
Geosmin	0.03 x 10 <sup>-6</sup>	EPA	SF.L9	Mar. '68	glc ms	20, 102
*	0.06 x 10 <sup>-6</sup>	RID	SF.R67			103
		"	T6			
Glycerol		EPA	E.D1		hplc	
Heptanol		KK	SF.R5	Nov. '71	glc ms	4
1-Hexanol	65 x 10 <sup>-3</sup>	EPA	E.I8,23 SF.R5		glc ms	2,20
					"	23
Isoborneol		EPA	T1			24
		"	E.I5		glc ms	20
Isopentyl alcohol	17 x 10 <sup>-3</sup>	EPA	E.I		glc ms	2
p-Menthen-1,8-ol		EPA	T1			36
Methanol	27 x 10 <sup>-3</sup>	WRC	LF		glc	
*			E.I23		glc ms	146

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
$\alpha$ -Methylbenzyl alcohol		EPA			glc ms	48
3-Methylcyclopentan-1,2-diol		EPA	SB/LF		glc ms	147
2-Methylisoborneol	0.1 x 10 <sup>-6</sup>	RID EPA	T7, SF.R65 & SF.L9	Mar. '68	glc ms nmr	103 20,102
2-Methyl-2-pentanol			SF.L1	1973	glc ms	123
Monoterpenic alcohol		GEN	SF.R .	June '72	glc ms	
1-Octanol	19 x 10 <sup>-3</sup>	EPA	E.I8,23		glc ms	2,20
1-Pentanol	1 x 10 <sup>-9</sup>	EPA	E.D3a T10		glc ms "	134
Phenylmethyl carbinol	17 x 10 <sup>-6</sup>		SF.R10		glc ir	25
Phenyl octadecanol		KK	SF.R5	Nov. '71	glc ms	4
Phenylpropanol			SF.R5		glc ms	23
Propanol	1 x 10 <sup>-9</sup>		T10		glc ms	134
2-Propanol			E.I23		glc ms	146
Terpinene-4-ol	0.1 x 10 <sup>-3</sup>	EPA " RID	E.I5 SF.R19/I5 E.I23		glc ms "	2 "
Campheneol	0.2 x 10 <sup>-3</sup>	GEN EPA " " " "	SF.R E.I E.I5 E.I18 E.I23 SF.R11 E.I23	June '72	glc ms " " " " "	48 2 " " 20
	0.15 x 10 <sup>-3</sup>	RID	E.I23			

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<u>ARYLALKANES</u>						
Alkylbenzene			SF.R17		glc ms	29
		KK	SF.R5	1970/71	"	4
		CEN	SF.R		"	
		ISU	SB,1		ms	1
Alkylindane		ISU	SB,1		ms	1
Azulene		EPA	E.I17		glc ms	24
C <sub>4</sub> -Benzenes		UZ	T3 & SF.L1		glc ms	10,22
C <sub>5</sub> -Benzenes		UZ	T3 & SF.L1		glc ms	10,22
C <sub>6</sub> -Benzenes		UZ	T3 & SF.L1		glc ms	10,22
Butylbenzene		EPA	T1		glc ms	36
			SF.R5		"	23
t-Butylbenzene	* 0.1 x 10 <sup>-6</sup>	RID	T6			
		KK	SF.R5	1970/71	glc ms	4
Cymene		UZ	SF.L1		glc ms	10
p-Cymene		KK	SF.R5	1970/71	"	4
		EPA	E.I10		"	2
		"	E.15		"	20
		RID	E.I23			
Diethylbenzene		KK	SF.R5	1970/71	glc ms	4
			T11		"	135
Dimethyl benzene isomers	* 50 x 10 <sup>-6</sup>	EAWAG	SF.L	1972		
		UZ	SF.L1		glc ms	10
			T10		"	134
1,2-Dimethylbenzene		UZ	T3 & SF.L1		glc ms	22
		EAWAG	T3, SB6, SF.R69]		"	136
1,3-Dimethylbenzene		UZ	T3 & SF.L1		glc ms	22
1,4-Dimethylbenzene		UZ	T3 & SF.L1		glc ms	22
1,3-&1,4-Dimethylbenzenes	*	EAWAG	T3, SB6, SF.R69]		glc ms	136

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Dimethylethylbenzene			SF.L1, T3, S	] 1973	glc ms	10, 123
Diphenylethane		KK EPA	SF.R5 SF.R19/I5	1970/71	glc ms	4 2
Diphenylmethane		*	E.D3		glc ms	133
Dodecylbenzene		*	E.D3		glc ms	133
Ethylbenzene		EPA "	T/SF.R36 T1		glc ms	47 36
	$1.2 \times 10^{-6}$ $< 5 \times 10^{-6}$		SF.R10 SB.1		glc ir glc ms	25 1
		EPA	E.D3a T3&SF.L1		"	10, 22
		EAWAG " "	SF.L E.D3 T3, SB6, SF.R69]	1972 Apr. '74	glc ms "	124 136
Ethylindane			T3&SF.L1		glc ms	22
2-Ethyltoluene		EPA	E.I23 T3&SF.L1		glc ms "	2 22
		EAWAG EPA	T3, SB6, SF.R69] T1		"	136
	$0.04 \times 10^{-6}$	*				
3-Ethyltoluene			T3&SF.L1		glc ms	
4-Ethyltoluene		*	T3&SF.L1 T1		glc ms	
	$3 \times 10^{-9}$	EPA				
3- & 4-Ethyltoluene		*	EAWAG	T3, SB6, SF.R69]	glc ms	136
Ethylxylene		*	RID	T6		
Heptylbenzene			SF.R5		glc ms	23
Hexylbenzene			SF.R5		glc ms	23



Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Indane	7.0 x 10 <sup>-6</sup>	EPA	E.I	Apr. '74	glc ms	48
		"	E.I8,23 SF.L1 SB.1		"	"
		EAWAG	E.D3		ms glc ms	1 124
Isobutylbenzene			SF.L1,T3,SB6]	1973	glc ms	10,123
Isopropylbenzene			SB1	1970/71	glc ms	1
		KK	SF.R5		"	"
		EPA	E.I	Apr. '74	"	2
		EAWAG	E.D3		"	"
Isopropyltoluene			SF.L1,T3,SB6]	1973	glc ms	10,123
Methylbiphenyl		EPA	T1		glc ms	36
		"	E.I			48
Methylcymene		KK	SF.R5	1970/71		4
1-Methyl-4-ethylbenzene		EPA	LF		glc ms	20
Methylindanes		UZ	SF.L1	Apr. '74	glc ms	22
		EAWAG	E.D3		"	"
Methylpropylbenzene			SF.L1,T3,SB6]	1973	glc ms	10,123
Methyl-iso-propylbenzene			SF.L1,T3,SB6]	1973	glc ms	123
1-Methyl-4-isopropylcyclohexa-1,3-diene *	75 x 10 <sup>-6</sup>	RID	E.I23			
Methylstyrene isomers	0.5 x 10 <sup>-6</sup>	CEN	SF.R	1972	glc ms "	48
		EPA	E.I			2
		"	E.I23			
o-Methylstyrene	1 x 10 <sup>-6</sup>	EPA	E.D3a		glc ms	20
		"	E.I8		"	
Pentylbenzene			SF.R5		glc ms	23

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Pentylbenzene (contd)						
*	0.1 x 10 <sup>-6</sup>	RID	T6			
*	10 x 10 <sup>-6</sup>	"	E.I8			142
Propylbenzene			T3, SF.L1		glc ms	10,22
		EAWAG	SF.R5		"	23
			E.D3	Apr. '74	"	124
iso-Propylbenzene			E.D3		glc ms	133
*		EAWAG	T3, SB6, SF.R69]		"	136
Propyltoluene			T3 & SF.L1		glc ms	10,22
Styrene		EPA	T/SF.R36		glc ms	47
	2.6 x 10 <sup>-6</sup>	"	E.I16		"	20
	1 x 10 <sup>-6</sup>		SF.R17		"	29
			SF.R10		glc ir	25
	31 x 10 <sup>-6</sup>	EPA	T1			36
		"	E.I8		glc ms	20
	0.03 x 10 <sup>-3</sup>	EPA	E.I		glc ms	48
	0.003 x 10 <sup>-3</sup>	"	E.I23		"	2
*	1.0 x 10 <sup>-6</sup>	"	E.I16		"	"
		RID	SF.R40			
Tetralin			SF.R10		glc ir	25
	48 x 10 <sup>-6</sup>	EAWAG	E.D3	Apr. '74	glc ms	124
Tetramethylbenzene isomers			SF.R5	1970/71	glc ms	4
		KK	SF.L1		"	10
		EPA	E.I10		"	2
1,2,3,5-Tetramethylbenzene			SF.L1, T3, SB6]	1973	glc ms	123
1,2,4,5-Tetramethylbenzene		UZ	SF.L1, T3, SB6]	1973	glc ms	123
Tetramethyldiphenylmethane			SF.R5	1970/71	glc ms	4
Toluene		EPA	T/SF.R36		glc ms	47
		"	T1			36
		OEN	SF.R	1972		
	<0.1 x 10 <sup>-3</sup>		T2		glc ms	9
		EPA	E.D3a		"	
			T3 & SF.L1		"	10,22
*	1 x 10 <sup>-9</sup>	EAWAG	E.D3	Apr. '74	"	124
*			T10		"	134
*	10 x 10 <sup>-6</sup>	EAWAG	T3, SB6, SF.L69]		"	136
		RID	E.I23			

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	
Toluene (contd)					
*	$0.10 \times 10^{-6}$	EPA	T1		
*	$0.5 \times 10^{-6}$	RID	T6		
*			T11		135
Tri-t-butylbenzene		KK	SF.R5	1970/71	4
Trimethyl benzenes			T10		134
1,2,3-Trimethylbenzene			T3 & SF.L1		22
*		EAWAG	T3, SB6, SF.R69]		136
1,2,4-Trimethylbenzene		EAWAG	T3, SB6, SF.R69]		136
*		EAWAG	T3 & SF.L1		22
			E.D3	Apr. '74	124
1,3,5-Trimethylbenzene			SF.L1, T3	1973	123
*		EAWAG	T3, SB6, SF.R69]		136
*	$10 \times 10^{-6}$	RID	SF.R5		142
*	$1.0 \times 10^{-6}$	"	T6		"
Trimethyldiphenylbenzene		KK	SF.R5	1970/71	4
Trimethyldiphenylmethane		KK	SF.R5	1970/71	4
m-Xylene					
	$6.0 \times 10^{-6}$	EPA	E.I23		2
	$8 \times 10^{-6}$	"	E.I8		20
		EAWAG	E.D3	Apr. '74	124
*	$1 \times 10^{-3}$	RID	E.I8		142
*	$1.0 \times 10^{-6}$	"	T6		
o-Xylene					
	$6.0 \times 10^{-6}$	EPA	E.I23		2
	$6.0 \times 10^{-6}$	"	E.I8		20
		EAWAG	E.D3	Apr. '74	124
*	$0.6 \times 10$	EPA	SB/LF		147
p-Xylene					
	$2.0 \times 10^{-6}$	EPA	E.I23		2
	$2.0 \times 10^{-6}$	"	E.I8		20
		EAWAG	E.D3	Apr. '74	124
*	$0.9 \times 10$	E1	SB/LF		147
Xylene isomers					
	$0.2 \times 10^{-6}$	CEN	SF.R	Oct. '71	
	$0.32 \times 10^{-3}$		T2		9
		EPA	E.I		48
		"	T/SF.R36		47
			SF.R5		23

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
<b>ALKALES AND ALKENES</b>						
n-Alkanes	0.06-0.60x10 <sup>-3</sup>	KK RID CEN EAWAG WRC	SF.R5 SF.R67 SF.R SF.L SF.R6 SF.L1	1972/3 1971 1972 "	glc ms "	4 104
	7.2 x 10 <sup>-6</sup> 0.1 x 10 <sup>-3</sup> 0.3-0.5 x 10 <sup>-3</sup>	EPA "	E.I LF SF.L2 SF.RU5 SF.RL5	"	" "	10 48 20 105 106 "
n-Alkenes		CEN	SF.R SF.L1	1972	glc ms	10
C <sub>9</sub> -C <sub>27</sub> Alkanes	*	EAWAG	T3,SB6,SFR69		glc ms	136
C <sub>17</sub> -C <sub>35</sub> Alkanes	*		E,D3		glc ms	133
C <sub>21</sub> -C <sub>24</sub> Alkanes			T3 & SF.L1		glc ms	22
C <sub>20</sub> -C <sub>33</sub> Alkanes	0.2 - 3.8 x 10 <sup>-6</sup>		SF.R & L			107
Camphene	* 1 x 10 <sup>-3</sup>	RID	E.I8			142
Cyclohexane	0.36 x 10 <sup>-3</sup>		T2		glc ms	9
Cyclohexene	0.13 x 10 <sup>-3</sup>		T2		glc ms	9
1,5-Cyclooctadiene		EPA "	E.I23 E.I		glc ms "	2 48
Cyclopentadiene	0.36 x 10 <sup>-3</sup>		T2		glc ms	9
Cyclopentane	0.16 x 10 <sup>-3</sup>		T2		glc ms	9

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) Refer- ences
		Labora- tory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
Cyclopentene & Methyl cyclopentene*	$0.32 \times 10^{-3}$		T2		glc ms	9
n-Decane isomers *	$0.03 \times 10^{-6}$	EPA	T1			
n-Decane	$30 \times 10^{-6}$	EPA	E.I.23 T3 & SF.L1		glc ms "	20 22
	* $0.04 \times 10^{-6}$	EPA	T1			
	* $0.03 \times 10^{-6}$		T10		glc ms	134
iso-decane *	$0.05 \times 10^{-6}$		T10		glc ms	134
Dimethylstyrene		CEN	SF.R	June '72		
n-Dodecane	$0.031-0.22 \times 10^3$	EPA	E.I.8		glc ms	20
		"	E.I.5		"	2
	* $0.01 \times 10^{-6}$	EPA	T3 & SF.L1 T1		"	22
Eicosane	$0.3 \times 10^{-3}$	EPA	E.I.8		glc ms	20
		EPA	T3 & SF.L1		"	22
	*	EPA	T12		"	154
Ethylidenecyclopentane		EPA	E.I.5		glc ms	2
Ethyltoluene isomers		EPA	E.I T3 & SF.L1		glc ms "	48 10,22
Heineicosane	$0.19 \times 10^{-3}$	EPA	E.I.8		glc ms	20
Heptadecane		EPA	T3 & SF.L1		glc ms	22
		"	E.I.18		"	2
	$22-340 \times 10^{-6}$	"	E.I.8		"	20
		"	SF.R11		"	"

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
1-Heptadecene			SF.L1,T3,SB6	1973	glc ms	123
Heptane			SF.L1,SB6	1973	glc ms	123
Hexadecane			T3 & SF.L1		glc ms	22
	26-420 x 10 <sup>-6</sup>	EPA	E.I18		"	2
		"	E.I8		"	20
		"	E.I5		"	2
		"	E.I23		"	"
		"	SF.R11		"	20
	*	RVA	S.P & B - SF.L7	July'74	"	
Hydrocarbons (C <sub>1</sub> -C <sub>4</sub> )	12 x 10 <sup>-3</sup>		T2		glc ms	9

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				(5) References
		Laboratory	Type (2) of sample	Date (3) of Sampling	Analysis (4) and/or Estimation	
1-Isopropenyl-4-isopropylbenzene		EPA	T1			36
Isodecane			T3 & SF.L1		glc ms	10,22
Isododecane			SF.L1 SF.L1, T3, SB6		glc ms "	10 123
Isononane			SF.L1	1973	glc ms	10,123
Isoundecane			SF.L1		glc ms	10
Isoundecene			T3 & SF.L1		glc ms	10,22
Limonene			SF.R17 SF.L1, SB6 E.I5 E.I23 T1	1973	glc ms glc ms	29 10,123 20
* * Methylcyclohexane	0.2x10 <sup>-3</sup> 0.03x10 <sup>-6</sup>	EPA RID EPA	T11		glc ms	135
2-Methyl-4-isopropenylcyclohexane		CEN	SF.R	Jun '72		
Nonadecane			T3 & SF.L1 E.I8		glc ms "	22 20
n-Nonane			T10 T3 & SF.L1 E.I23 T1		glc ms "	134 22
* * * Octadecane	0.01x10 <sup>-6</sup> 5.x 10 <sup>-6</sup> 0.03x10 <sup>-6</sup>	RID EPA	T3 & SF.L1 E.I8 E.I8 SF.R11 T12		glc ms " " " "	22 20 2 20 154
Octane	17-330x10 <sup>-6</sup>	EPA " " "	SF.L1, SB6 E.I23 SF.R71	1973	glc ms glc ms	123 135

Substance (1)	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			(5) References	
		Laboratory	Type (2) of sample	Date (3) of Sampling		Analysis (4) and/or Estimation
Pentadecane						
	0.03-0.49x10 <sup>-3</sup>	EPA	T3 & SF.L1 E.I8		glc ms "	22 20
*	0.02x10 <sup>-6</sup>	"	E.I5;23 T1		"	"
1-Pentadecene			SF.L1	1973	glc ms	123
Pentane			SF.R71		glc ms	135
* Pentene						
Fentene	0.5x10 <sup>-3</sup>		T2		glc ms	9
β-Pinene		EPA	E.I5		glc ms	2
Pinene isomer	8.0x10 <sup>-6</sup>	EPA	E.I5		glc ms	2
Terpene			SF.L1			10
Terpinene	* 0.2x10 <sup>-3</sup>	RID	E.I23			
Terpinolene		EPA	E.I5		glc ms	2
Tetradecane						
*	0.039-0.59x10 <sup>-3</sup>	EPA	T3 & SF.L1 E.I8		glc ms "	22 20
n-Tridecane	0.02x10 <sup>-6</sup>	"			"	
	0.042-0.39x10 <sup>-3</sup>	EPA	T1 E.I8		glc ms "	20 "
*	0.01x10 <sup>-6</sup>	"	E.I5 SF.L1 T1	1973	"	123
n-Undecane						
	27-50x10 <sup>-6</sup>	EPA	E.I5		glc ms	20
	20x10 <sup>-6</sup>	"	E.I8		"	"
		"	E.I23		"	"
*	10x10 <sup>-6</sup>	RID	T3 & SF.L1 E.I23		"	22
*	0.02x10 <sup>-6</sup>	EPA	T1			
Undecane isomers	* 0.10x10 <sup>-6</sup>	EPA	T1			



Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References	
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation		
<u>AMINO ACIDS &amp; PROTEINS</u>							
Alanine	5 x 10 <sup>-6</sup>	WRC	E.D3b	Jan '73	hplc c	108	
	11.2 x 10 <sup>-3</sup>		SF.L11		pc	109	
	7.8 x 10 <sup>-3</sup>		E.D1		"	"	
	7.3 x 10 <sup>-3</sup>		E.D3a		"	"	
	27.8 x 10 <sup>-3</sup>		E.D3b		"	"	
	6.3 x 10 <sup>-3</sup>		S.AS		"	"	
2-Amino-n-butyric acid	0.1 x 10 <sup>-3</sup>	WRC	E.D3b	Jan '73	hplc c		
Arginine	10.6 x 10 <sup>-3</sup>		E.D1		pc	109	
	6.4 x 10 <sup>-3</sup>		E.D3a		"	"	
	7.0 x 10 <sup>-3</sup>		E.D3b		"	"	
	12.8 x 10 <sup>-3</sup>		S.AS		"	"	
	5.4 x 10 <sup>-3</sup>		S.SS		"	"	
Asparagine	5.1 x 10 <sup>-3</sup>		E.D1		pc	109	
	3.8 x 10 <sup>-3</sup>		E.D3a		"	"	
	2.9 x 10 <sup>-3</sup>		E.D3b		"	"	
	14.9 x 10 <sup>-3</sup>		S.AS		"	"	
	9.6 x 10 <sup>-3</sup>		S.SS		"	"	
Aspartic acid	0.1 x 10 <sup>-6</sup>	WRC	E.D3b	Jan '73	hplc c	108	
			SF.L11		pc		
Creatine	0.4 x 10 <sup>-3</sup>	WRC	E.D3b	Jan '73	hplc c		
Creatinine (as C)	2.7-3.5x10 <sup>-3</sup>	WRC	E.D1			80	
Cystine	6.3 x 10 <sup>-3</sup>		E.D1		pc	109	
	3.2 x 10 <sup>-3</sup>		E.D3a		"	"	
	2.2 x 10 <sup>-3</sup>		E.D3b		"	"	
	23.8 x 10 <sup>-3</sup> *		S.AS		"	"	
Glutamic acid	10 x 10 <sup>-6</sup>	WRC	E.D3b		hplc c	108	
	24.8 x 10 <sup>-3</sup>		SF.L11		pc		109
	15.3 x 10 <sup>-3</sup>		E.D1		"		"
	14.6 x 10 <sup>-3</sup>		E.D3a		"		"
	50.8 x 10 <sup>-3</sup>		E.D3b		"		"
	23.8 x 10 <sup>-3</sup>		S.AS		"		"
			S.SS		"		"
Glutamine	5 x 10 <sup>-6</sup>	WRC	E.D3b	Jan '73	hplc c		
Glycine			SF.L11		pc	108	
	4.2 x 10 <sup>-3</sup>		E.D1		"	109	
	3.6 x 10 <sup>-3</sup>		E.D3a		"	"	
	2.4 x 10 <sup>-3</sup>		E.D3b		"	"	
Glycine & serine	29.4 x 10 <sup>-3</sup>		S.AS		pc	109	
	9.0 x 10 <sup>-3</sup>		S.SS		"	"	

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
Hippuric acid	$2 \times 10^{-6}$	WRC	E.D3b		hplc c	
Histidine & Lysine	$18.1 \times 10^{-3}$		E.D1		pc	109
	$8.6 \times 10^{-3}$		E.D3a		"	"
	$8.9 \times 10^{-3}$		E.D3b		"	"
	$10.1 \times 10^{-3}$		S.AS		"	"
	$1.1 \times 10^{-3}$		S.SS		"	"
Leucine	$21.3 \times 10^{-3}$		E.D1		pc	109
	$9.8 \times 10^{-3}$		E.D3a		"	"
	$10.6 \times 10^{-3}$		E.D3b		"	"
	$31.3 \times 10^{-3}$		S.AS		"	"
	$8.6 \times 10^{-3}$		S.SS		"	"
Lysine & Histidine	$18.1 \times 10^{-3}$		E.D1		pc	109
	$8.6 \times 10^{-3}$		E.D3a		"	"
	$8.9 \times 10^{-3}$		E.D3b		"	"
	$10.1 \times 10^{-3}$		S.AS		"	"
	$1.1 \times 10^{-3}$		S.SS		"	"
Phenylalanine	$40 \times 10^{-6}$	WRC	E.D3b	Jan '73	hplc c	
	$11.3 \times 10^{-3}$		E.D1		pc	109
	$6.5 \times 10^{-3}$		E.D3a		"	"
	$4.9 \times 10^{-3}$		E.D3b		"	"
	$11.2 \times 10^{-3}$		S.AS		"	"
	$9.7 \times 10^{-3}$		S.SS		"	"
Proline			SF.R		pc	72
Serine	$0.5 \times 10^{-6}$	WRC	E.D3b	Jan '73	hplc c	
	$2.4 \times 10^{-3}$		E.D1		pc	109
	$1.9 \times 10^{-3}$		E.D3a		"	"
	$1.5 \times 10^{-3}$		E.D3b		"	"
Threonine	$0.3 \times 10^{-6}$	WRC	E.D3b	Jan '73	hplc c	
	$5.6 \times 10^{-3}$		S.AS		pc	109
Total bound amino acids (as leucine)	$0.49 \times 10^{-3}$	WRC	E.D3b	Jan '73	c	
Total free amino acids (as leucine)	$1.44 \times 10^{-3}$	WRC	E.D3b	Jan '73	c	
(as N)	$2-25 \times 10^{-6}$	WRC	SF.R16,15		"	32
(as C)	$2.0-5.0 \times 10^{-3}$	WRC	E.D1		"	80
(as C)	$0.06 \times 10^{-3}$	"	E.D3b		"	"
	$\sim 1 \times 10^{-9}$		SF.L11			108
Total peptides	$0.1 \times 10^{-6}$		SF.L11			108

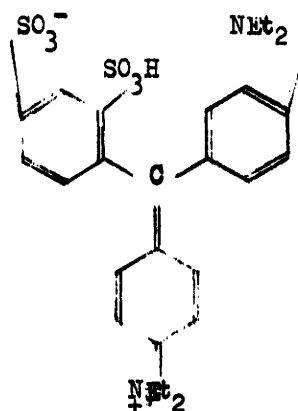
Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Total protein (as N) (as C) (as C)	20-340 x 10 <sup>-6</sup> 25.5-31 x 10 <sup>-3</sup> 2.99 x 10 <sup>-3</sup> 70-130 x 10 <sup>-6</sup> 1.6-7.4 x 10 <sup>-3</sup>	WRC "	SF.R16,L5 E.D1 E.D3b T E.D3		c " " 110 111
Tryptophan			SF.R5 S.SS		pc "
Tyrosine	1.9 x 10 <sup>-3</sup>				72 109
	9.7 x 10 <sup>-3</sup> 6.8 x 10 <sup>-3</sup> 7.1 x 10 <sup>-3</sup>		E.D1 E.D3a E.D3b		pc " "
Tyrosine & Valine					" "
Valine	22.4 x 10 <sup>-3</sup> 0.1 x 10 <sup>-3</sup>	WRC	E.D3b	Jan '73	pc hplc c 109

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)				References
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<b>CARBOHYDRATES</b>						
Allulose			E.D1,3		hplc c	74
Arabinose			E.D1,3		hplc c	74
Cellobiose			E.D1,3		hplc c	74
Deoxyribose			E.D1,3		hplc c	74
Fructose	12 x 10 <sup>-6</sup> up to 3.75x10 <sup>-3</sup>	WRC	E.D3b E.D1 E.D1,3	Sept '71	glc " hplc c	112 74
Galactose	<1 x 10 <sup>-6</sup> 0.10-3.20x10 <sup>-3</sup>	WRC EPA	E.D3b E.D1 " E.D1,3	Sept '71	glc glc hplc glc hplc c	112 74
Glucose	34 x 10 <sup>-6</sup> 0.35-19.5x10 <sup>-3</sup> 1-5 x 10 <sup>-6</sup> 1-5 x 10 <sup>-6</sup>	WRC EPA	E.D3b E.D1 E.D1 SF.L12 SF.L11 E.D1,3	Sept '71	glc glc hplc glc hplc c	112 113 108 74
Lactose			E.D1,3		hplc c	74
Maltose		EPA	E.D1 E.D1,3		glc hplc hplc c	74
Mannose			ED1,3		hplc c	74
Raffinose			E.D1,3		hplc c	74
Rhamnose			E.D1,3		hplc c	74
Ribose			E.D1,3		hplc c	74
Sorbose			E.D1,3		hplc c	74
Sucrose	3.15-4.45x10 <sup>-3</sup> 0.10-0.90x10 <sup>-3</sup> up to 0.20x10 <sup>-3</sup> up to 0.10x10 <sup>-3</sup> up to 4.00x10 <sup>-3</sup> 2-10 x 10 <sup>-6</sup> 2-10 x 10 <sup>-6</sup>		E.D1 E.D2 " " " SF.L12 SF.L11 ED1,2		glc " " " " hplc c	112 " " " " 113 108 74

Substance	Concentration (g/l-waters) (mg/Kg-solid samples)	Notes (see Key)			References
		Laboratory	Type of sample	Date of sampling	
Total carbohydrates					
(as glucose)	$0.1 \times 10^{-3}$	WRC	E.D3b	Sept '71	c
{ " }	$0.8-2.4 \times 10^{-3}$		E.D3		" 111
(as C)	$55.0-330 \times 10^{-3}$	WRC	E.D1		" 80
{ " }	$1.63 \times 10^{-3}$	"	E.D3b		" "
(as glucose)	$70-900 \times 10^{-6}$		SF.R16,L5		" 32
Total polysaccharides					
(as glucose)	$1.7 \times 10^{-3}$	WRC	E.D3b	Sept '71	c
	$36-138 \times 10^{-6}$		T		" 110
	$0.2-1.0 \times 10^{-3}$		SF.R16,L5		" 32
Xylose			ED1,3		hplc c 74

Substance	Concentration ( $\mu$ /l-water) (mg/Kg-solid samples)	Notes (see Key)			References	
		Laboratory	Type of sample	Date of sampling		Analysis and/or Estimation
<b>STEROIDS</b>						
Cholesterol	$20 \times 10^{-6}$	WRC	E.D3b	Jun '71	hplc glc ms	
	$1.1 \times 10^{-6}$	WRC	SF.R6	Oct '70	tlc glc	
	$0.2 \times 10^{-6}$	"	"	Nov '70	"	
	$1.1 \times 10^{-6}$	"	SF.RU	Oct '70	"	
	ND	"	SB.3	Nov '70	"	
	$0.16 \times 10^{-6}$	"	"	Dec '70	"	
	$62 \times 10^{-6}$	"	E.D3b	Oct '70	"	
	up to $2.5 \times 10^{-6}$	"	SF		"	114
Coprostanol	$10 \times 10^{-6}$	WRC	E.D3b	Jun '71	hplc glc ms	
	$0.8 \times 10^{-6}$	WRC	SF.R6	Oct '70	tlc glc	
	$0.5 \times 10^{-6}$	"	"	Nov '70	"	
	ND	"	SF.RU	Oct '70	"	
	"	"	SB.3	Nov '70	"	
	$0.26 \times 10^{-6}$	"	"	Dec '70	"	
	$0.176 \times 10^{-3}$	"	E.D3b	Oct '70	"	
	up to $5.0 \times 10^{-6}$		SF		"	114
Total steroids (as cholesterol)	$0.165 \times 10^{-3}$	WRC	E.D3b	Jun '71	c	
Total synthetic steroid hormones	$100 \times 10^{-6}$		E.D1			115

Substance	Concentration ( $\mu$ /l-waters) (mg/Kg-solid samples)	Notes (see Key)				Reference
		Laboratory	Type of sample	Date of sampling	Analysis and/or Estimation	
<b>PIGMENTS, ENZYMES, VITAMINS, NUCLEOSIDES &amp; MISCELLANEOUS COMPOUNDS</b>						
Adenosine		EPA	E.D1		uv glc hplc	
Amylase			SF			117
Biotin	$\sim 10^{-9}$		SF.L			118
Chbrophylls	$0.05-0.18 \times 10^{-6}$		SF.L5			119
Guanosine	$50 \times 10^{-6}$	EPA	E.D1		uv glc ms hplc	
Nicotinic acid	$0.3-3.0 \times 10^{-6}$		SF.L10			120
	$\sim 10^{-9}$		SF.L			118
Pantothenic acid	$\sim 10^{-9}$		SF.L			118
Phosphatase			SF			117
Pteroylglutamic acid (folic acid)	$0.26 \times 10^{-6}$		SF.R18			120
	$24-104 \times 10^{-9}$		SF.L10			"
	$\sim 10^{-9}$		SF.L			118
Saccharase			SF			117
Urochromes			SF.R5/E.D3			122
Vitamin B <sub>1</sub> (thiamine)	$\sim 10^{-9}$		SF.L			118
Vitamin B <sub>12</sub>	$5-28 \times 10^{-9}$		SF.L10			120
	$5-20 \times 10^{-9}$		SF.L13			121
Xanthophylls	$0.21-1.2 \times 10^{-6}$		SF.L5			119
CI Acid blue 1 or CI Food blue 3	* $8.7-12.0 \times 10^{-6}$ * $2.5-6.0 \times 10^{-6}$	WRC "	ED3 SF.R4	Aug '75 "	" "	



BIBLIOGRAPHY



1. A. K. Burnham et al., *Anal. Chem.*, 44, 1, (1972)
2. R. G. Webb et al., *Environmental Protection Technology Series*, EPA-R2-73-277, (Aug. 1973)
3. P. Wedgwood et al., *Analyst*, 81, 42, (1956)
4. W. Kölle et al., *Vom Wasser*, 39, 109, (1972)
5. R. A. Hites et al., *Science*, 178, 158, (1972) and *J. Chromat. Sci.*, 11, 570, (1973)
6. J. Borneff et al., *Arch Hyg. Bakt.*, 146, 572, (1963)
7. J. Borneff et al., *ibid*, 148, 226, (1965)
8. K. P. Ershova, *Hyg. Sanit.*, 36, 316 (1971)
9. J. Novák et al., *J. Chrom.*, 76, 45, (1973)
10. K. Grob, *Forschung und Technik*, Sept 10, 1973
11. J. Borneff, *Arch. Hyg. Bakt.*, 153, 220, (1969)
12. J. K. Reichert, *ibid*, 152, 37, (1968)
13. K. P. Ershova, *Gigiena i Sanit.*, 33, 268, (1968)
14. A. P. Il'nitskii et al., *Hyg. Sanit.*, 36, 316, (1971)
15. N. N. Trakhtman et al., *Gigiena i Sanit.*, 31, 316 (1966)
16. S. S. Bliokh, *ibid*, 30, 100, (1965)
17. S. N. Cherkinskii et al., *ibid*, 24, 11, (1959)
18. A. P. Il'nitskii et al., *ibid*, 29, 88, (1964)
19. L. N. Samoilovich, *ibid*, 33, 6, (1968)
20. L. N. Keith et al., *Environmental Protection Technology Series*, EPA-R2-73-155, (May 1973)
21. B. T. Croll, *Wat. Treat. Exam.*, 21, 213, (1973)
22. K. Grob, *J. Chrom.*, 84, 255, (1973)
23. A. P. Meijers, PhD Thesis-Technical University of Delft, (1970)
24. A. L. Alford, *Environmental Protection Technology Series*, EPA-660/2-73-013, (Sept 1973)
25. A. A. Rosen et al., *J. Water Pollut. Contr. Fed.*, 35, 777, (1963)
26. B. T. Croll, *Analyst*, 97, 281, (1972)
27. M. I. Kazakova et al., *Tr. Perm. Med. Inst.*, 61, 210, (1965)
28. L. S. Bark et al., *Wat. Res.*, 6, 117, (1972)
29. A. P. Meijers, *H<sub>2</sub>O*, 6, 244, (1973)
30. N. Takenura et al., *Intern. J. Air Water Pollution*, 9, 665, (1968)
31. L. I. Nimsseva et al., *Gidrokhim Mater.*, 41, 129, (1966)
32. A. D. Seminov, *ibid*, 45, 155, (1967)
33. L. Rudling, *Wat. Res.*, 5, 831, (1971)
34. A. M. Hanson et al., *J. Water Pollut. Contr. Fed.*, 43, 2271, (1971)
35. P. A. Frank et al., *Weeds*, 15, 353, (1967)
36. *Environmental Protection Agency Report*, "Industrial Pollution in the Lower Mississippi River Basin" (Louisiana), Baton Rouge Facility, Surveillance and Analysis Division, (1972)
37. F. M. Middleton et al., *Ind. Eng. Chem.*, 52, 73A, (1960)
38. F. M. Middleton et al., *Chem. Eng. Sym. Series*, 45, (59), 26, (1963)
39. J. I. Teasley, *Envir. Sci. Tech.*, 1, 411, (1967)
40. S. R. Weibel et al., *J. Am. Wat. Wks Assoc.*, 58, 1075, (1966)
41. A. W. Breidenbach et al., *Public Health Rept.*, 82, 139, (1967)
42. D. F. Metzler, in *Dangerous Properties of Ind. Materials*, Reinhold Book Corp., NY., 78, (1968)
43. D. B. Manigold et al., *Pesticides Monitoring J.*, 3, 124, (1969)
44. C. Cottam, *Proc. of the Nat. Conf. on Wat. Poll.* US Dept of Health, Education and Welfare, PHS, (1961)
45. L. Weaver et al., *Pub. Health Rept.*, 80, 431, (1965)
46. J. R. E. Jones, *Fish and River Pollution*, Butterworths, London, 118, (1964)
47. R. D. Kleopfer et al., *Envir. Sci. Tech.*, 6, 1036, (1972)
48. J. M. McGuire et al., *Environmental Protection Technology Series*, EPA-R2-73-234, (July 1973)
49. R. S. Green et al., in *Agriculture and the Quality of our Environment*, (Ed. N. C. Brady), AAAS Publ., 85, 137, (1966)

50. W. E. Westlake et al., in *Organic Pesticides in the Environment*, Advances in Chemistry Series, ACS, 60, 110, (1966)
51. G. F. Lowden et al., *Wat. Treat. Exam.*, 18, 275, (1969)
52. E. Brown et al., *Pesticides Monitoring J.*, 1, 38, (1967)
53. R. Massot, Report of Technical Note to 'COST' project 64b, *Produits de dégradation du Pentachlorophenol dilué dans les eaux*, (Oct. 1973)
54. A. V. Holden et al., *J. Proc. Inst. Sew. Purif.*, 295, (1966)
55. S. Ya. Naishtein, *Gigiena i Sanit.*, 34, 96, (1969)
56. S. P. Varshavskaya, *ibid*, 33, 15, (1968)
57. S. D. Faust et al., *J. Am. Wat. Wks Assoc.*, 56, 267, (1964)
58. F.K. Kawakara, *Envir. Sci. Tech.*, 5, 235, (1971)
59. *J. Am. Wat. Wks. Assoc.*, 61, 23, (1969)
60. *Envir. Currents*, 3, 613, (1969)
61. W. F. Barthel, in *Sym. on Pesticides and their Effects on Soil and Water*, Columbus, Ohio, 128, (1965)
62. K. Iruhayama, in *Advances in Water Pollut. Res.*, Washington DC, WPCF, 153, (1967)
63. T. Tsubaki, *Naika*, 21, 871, (1968)
64. G. D. Veith et al., *Wat. Res.*, 5, 1107, (1971)
65. D. J. Dube et al., *J. Water Pollut. Contr. Fed.*, 46, 966 (1974)
66. L. Rudling, *Wat. Res.*, 4, 533, (1970)
67. B. J. Kallman et al., *Tr. Am. Fish Soc.*, 91, 14, (1962)
68. R. A. Hites, *J. of Chrom. Sci.*, 11, 570, (1973)
69. R. W. Bovey et al., *J. Envir. Quality*, 3, 61, (1974)
70. R. L. Cooper et al., *Wat. Res.*, 7, 1375, (1973)
71. R. P. Hoak, *J. Air and Water Pollut.*, 6, 521, (1962)
72. J. Holluta et al., *Vom Wasser*, 22, 212, (1955)
73. H. Thielemann, *Z. Chem.*, 9, 189, (1969)
74. S. Katz et al., *Wat. Res.*, 6, 1029, (1972)
75. F. G. Dyatlovitskaya, *USSR Lit. on Water Supply and Water Pollut. Contr.*, US Dept of Commerce, 2, 118, (1962)
76. J. O'Shea et al., *J. Water Pollut. Contr. Fed.*, 37, 1444, (1965)
77. R. Marchetti, *Riv. Ital. Sostanze Grasse*, 45, 27, (1968)
78. S. K. Banerju, *J. Water Pollut. Contr. Fed.*, 462, 939, (1968)
79. H. I. Shuval, *Bull. World Health Organ.*, 27, 791, (1962)
80. H. A. Painter et al., *J. Inst. Sew. Purif.*, 302, (1961) and *J. Biochem. and Microbiol. Tech. and Eng.*, 1, 143, (1959)
81. M. Rebhun et al., *Envir. Sci. Tech.*, 5, 606, (1971)
82. R. L. Bunch et al., *J. Water Pollut. Contr. Fed.*, 33, 122, (1961)
83. G. E. Oliver, *J. Am. Wat. Wks Assoc.*, 53, 301, (1961) and *Ibid*, 53, 297, (1961)
84. J. J. Morgan et al., *Ibid*, 52, 471, (1960)
85. *Can. Med. Assoc. J.*, 90, 1089, (1964)
86. C. Henderson et al., *Sew. and Ind. Wastes*, 31, 295, (1959)
87. K. E. F. Hokanson, *Dissert. Absts.*, 29B(3), 1212B, (1968)
88. G. Vivoli et al., *Igiene Mod.*, 59, 346, (1966)
89. W. T. Sullivan et al., *Envir. Sci. Tech.*, 2, 194 (1968)
90. W. T. Sullivan et al., *Ibid*, 3, 481, (1969)
91. W. T. Sullivan et al., *Ibid*, 3, 481, (1969)
92. T. E. Brenner, in *Advances in Envir. Sciences*, Wiley-Interscience, NY, 151, (1969)
93. S. Jensen et al., *Environ. Pollut.*, 2, 145, (1971)
94. J. J. Murtaugh et al., *J. Water Pollut. Contr. Fed.*, 37, 410, (1965)
95. I. A. Goncharova et al., *Gidrokhim Mater*, 47, 110, (1968)
96. H. F. Mueller et al., *Anal. Chem.*, 32, 687, (1960)
97. W. L. Lamar et al., *US Geological Survey Water Supply Paper 1817-A* (1966)
98. A. L. Wilson, *J. Appl. Chem.*, 9, 501, (1959)
99. V. M. Prusakov, *Vopr. Kommunal. Gig.*, 6, 94, (1966)

100. Katuse Takeo, Koggo Yosui, 169, 19, (1972)
101. R.A.Hites, Environ. Health Perspectives, 17, (1973)
102. A. A. Rosen et al., Wat. Treat. Exam., 19, 106, (1970)
103. G. J. Piet et al., Wat. Treat. Exam., 21, 4, (1972)
104. B. C. J. Zoeteman, H<sub>2</sub>O, 5, 489, (1972)
105. J. Holluta et al., Gas Wasserfach, 108, 370, (1967)
106. H. Hellman et al., Deut. Gewasserk. Mitt., 14, 14, (1970)
107. G. Peake et al., J. Amer. Oil Chemists Soc., 43, 215, (1964)
108. M. H. Briggs, Life Sci., 1, 377, (1962)
109. F. Jursík, Sci. Papers from Inst. Chem. Tech., Prague, Faculty of Tech. Fuel and Water, 4, 221, (1960)
110. E. F. Barth et al., J. Amer. Wat. Wks Assoc., 959, (1962)
111. R. L. Bunch et al., Paper No. 8, Conf. Biolog. Waste Treat., Manhattan College, NY, (April 1960)
112. L. S. Bark et al., Wat. Res., 5, 1161, (1971)
113. J. R. Vallentyne et al., Science, 124, 1026, (1956)
114. J. J. Murtaugh et al., J. Water Pollut. Contr. Fed., 39, 404, (1967)
115. H. Tabak et al., In Developments in Industrial Microbiology, Washington DC, 367, (1970)
116. P. H. Abelson, Science, 169, 3942:1, (1970)
117. J. Overbeck et al., Naturwissenschaften, 50, 571, (1963)
118. H. Clemencón, Schweiz Z. Hydrol., 25, 157, (1963)
119. A. D. Seminov et al., Gidrokhim Mater., 49, 96, (1969)
120. K. Kashiwada et al., Kagoshima Daigaku Suisan Gakabu Kiyō, 11, 158, (1962)
121. D. Gerome, C. R. Acad-Sci Ser D., 272, 808, (1971)
122. J. Holluta, Bull. Schweiz Ver. Gas. Wasserfachmann, 40, 105, (1960)
123. K. Grob et al., J. Chrom., 90, 303, (1974)
124. W. Giger et al., Paper for publication in 'Vom Wasser', 1974.
125. V. E. Sinel'nikov, Kayan. Med. Zh., 3, 83, (1968)
126. P. A. Greve, The Sci. of the Total Envir., 1, 173, (1972)
127. M. Aknoff et al., Anal. Chem., 46, 659, (1974)
128. H. J. C. Wiesner et al., J. Res. US geol. Surv., 1, 603, (1973)
129. A. S. Maslennikov et al., Gigiena i Sanit., 30, 76, (1965)
130. O. G. Lanchikova et al., Gidrokhim Mater., 54, 43, (1970)
131. E. Kamata, Bull. Chem. Soc. Japan, 39, 1227, (1966).
132. C. Melchiorri et al., Nuovi Annali d'Igiene e Microbiologia, 24, 279, (1973).
133. J. Manka et al., Envir. Sci. Tech., 8, 1017, (1974).
134. M. A. Scheiman et al., Biomed. Mass Spect., 1, 209, (1974).
135. A. K. Burnham et al., J. Am. Wat. Wks Assoc., 65, 722, (1973).
136. K. Grob et al., J. Chrom., 106, 299, (1975).
137. J. B. Andelman et al., Bull. W.H.O., 43, 479, 1970.
138. R. E. Keegan. Doot. dissert., University of New Hampshire, USA (1971).
139. A. P. Il'nitskii et al., Vopr. Onkol., 16, 78, (1970); C.A. 73, 123343d, (1970).
140. A. P. Il'nitskii et al., ibid 18, 49, (1972); C.A. 76, 89789d, (1972).
141. A. P. Meyers. Quarterly KIWA/RIWA report. (1974).
142. G. J. Piet et al., The Sci. of the Total Envir., 3, 103, (1974).
143. J. Borneff et al., Arch. Hyg. Bakt., 151, 202, (1967).
144. J. Reichert et al., Zbl. Bakt. Hyg., I. Abt. Orig. B155, 18, (1971).
145. L. Rudling. Wat. Res., 6, 871, (1972).
146. L. E. Harris et al. Anal. Chem., 46, 1912, (1974).
147. J. M. Robertson et al. Environmental Protection Technology Series, EPA-660/2-74-077; (Sept. 1974).
148. H. Gtsten et al. Arh. hig. rada, 25, 207, (1974).
149. J. J. Rook. Wat. Treat. Exam., 234, (1974).
150. T. A. Bellar et al. Environmental Monitoring Series, EPA-670/4-74-008 (Nov. 1974). J. Amer. Wat. Wks. Assoc., 12, 703, (1974).
151. G. E. Glass, National Water Quality Lab, Duluth, Minnesota 55804. Private communication (1975).

152. W. H. Glaze, North Texas State University, Denton, Texas 76203. Private communication (1975).
153. R. W. Bovey et al. J. of Envir. Qual., 4, 103, (1975).
154. M. Deinzer et al., Wat. Res. 9, 799, (1975).
155. L. M. Law et al. Pesticides Monitoring J., 8, 33, (1974).
156. B. Dowty et al. Science, 187, 75, (1975).
157. R. L. Jolley. J. Water Pollut. Contr. Fed., 47, 601, (1975).
158. R. A. Schacht. Ecological Research Series, EPA-660/3-74-002 (Jan. 1974).
159. E. J. Bonelli et al. Eff and Wat. Treat. J. 12, 87, (1972).

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Acids (total soluble)	89
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Barbital	69
Benzaldehyde	77
Benzanthracene (1,2-)	2
Benzanthracene (3,4-)	2
Benzene	3
Benzene hexachloride (BHC)	26
BHC ( $\alpha$ -)	26
BHC ( $\gamma$ -)	27
Benzenes (C <sub>4</sub> , C <sub>5</sub> , C <sub>6</sub> )	98
Benzfluoranthene (3,4-)	3
Benfluoranthene (10,11-)	3
Benfluoranthene (11,12-)	3
Benzidine	14
Benzoic acid	82
Benzofuran	69
Benzophenone	77
Benzoquinoline	63
Benzothiazole	60
Benzothiazole (2-)	60
Benzothiazyl-2-methyl sulphon	60
Benzothiophene	60
Benzperylene (1,12-)	4
Benzpyrene (3,4-)	4
Benzyl alcohol	95
Benzyl butyl phthalate	91
Benzyl ether	77
Biotin	114
Biphenyl	6
Bitumen type compounds	6

Borneol	95
Bromobenzene	28
Bromochlorobenzene	28
Bromodichloromethane	28
Bromo-diethylaniline	14
Bromoform	28
Bromophenyl phenylether	28
Butanol (1-)	95
Butanone (2-)	77
Butoxyethanol	95
Butoxyethanol (2-)	77
Butoxyethanol (2-)	95
Butoxyethoxy ethanol (1-,2-)	77
Butylacetate (n-sec-)	91
Butylacetophenone (t-)	77
Butylacetophenone (p-t-)	77
Butylbenzene	98
Butylbenzene (t-)	98
Butylbenzene sulphonamide	14
Butylbenzene sulphonamide	60
Butylbenzoate (n-)	91
Butylbromide	28
Butylcarbobotoxymethyl phthalate	91
Butyl-1,2-dichlorobenzene	91
Butylisothiocyanate (n-)	60
Butylmercaptan (t-)	60
Butyl-4-methoxyphenol (2-t-)	63
Butyl-4-methylphenol (2-t-)	63
Butylphenylsulphonamide (N-)	15
Butyric acid	82
Butyric acid (1-)	83
Butyric acid (n-)	83
Cadaverine	15
Cadinene	103
Caffeine	69
Camphor	78
Camphanone ( $\alpha$ -)	78
Caproic acid	84
Caproic acid (i-)	84
Caproic acid (n-)	84
Caran-4-ol	95
Carbazole	69
Carbohydrates (total)	112
Carbon tetrachloride	29
Carbophenothion	24
Carboxyl-2,6-di-t-butylphenol (4-)	63
Catechol	63
Celloboise	111
Cineol	95
Chlordane	29
Chlordene	29
Chloroalkyl acetate	29
Chloroaniline	15
Chloroaniline (2-,3-,4-)	15
Chlorobenzene	29
Chlorobenzoic acid (2-)	29



Chlorobenzoic acid (3-)	29
Chlorobenzoic acid (4-)	30
Chlorobenzophenone	30
Chlorobiphenyl	30
Chlorocaffeine (8-)	30
Chlorocresol (4-)	30
Chlorocumene	30
Chlorocyclohexane	30
Chlorodibromomethane	30
Chlorodimethoxybenzene	30
Chlorodinitrobenzene	20
Chloroethoxyethane (1,2-bis)	30
Chlorethoxyether (bis,2-)	30
Chloroethylbenzene	30
Chloroethylether (bis,2-)	30
Chloroethylether	31
Chloroform	31
Chloroguanine (6-)	31
Chloro-4-hydroxybenzoic acid (3-)	31
Chlorohydroxybenzophenone	31
Chloroisopropylether (bis-)	31
Chloromandelic acid (4-)	31
Chlormethoxypentachlorobenzene	31
Chloro- $\alpha$ -methylbenzyl alcohol	31
Chloro-2-methylbut-1-ene (3-)	32
Chloro-1-methylethyl ether (2-)	32
Chloro-3-methylphenol	32
Chloromethylphenoxyacetic acid	32
Chloromethylquinoline	32
Chloronaphthalenes	32
Chloro-2-naphthol (1-)	32
Chloro- $\beta$ -naphthol	32
Chloronitrobenzene	20
Chloro-3-nitrobenzene (1-)	20
Chloronitrotoluene	20
Chlorophenol (2-,3-,4-)	32
Chlorophenoxy-2-methylpropionic acid (2-,4-)	32
Chlorophenylacetic acid (4-)	32
Chlorophenylmethyl sulphone	33
Chlorophenylethyl sulphone	33
Chlorophylls	114
Chloropropene (1-)	33
Chloro isopropyl ether (bis-)	33
Chloropropyl ether	33
Chloropyridine	33
Chlororesorcinol (4-)	33
Chlorosalicylic acid (5-)	33
Chlorotoluene	33
Chlorotoluene (o-,p-)	33
Chlorotoluidine	15
Chlorouracil (5-)	33
Chlorouridine (5-)	33
Chloroxanthine (8-)	33
Cholesterol	113
Chrysene	6
CI acid blue 1 or CI food blue 3	114
Copper (II) acetate	59

Copper phthalocyanide	(1,2,3,4) azobenzene	19
Coumarin type optical brighteners	(1,2,3) benzopyrone	74
Coumarin triazole type optical brighteners	(1,2,3) benzopyrone	74
Coprostanol	steroids	113
Creatine	amino acids	108
Creatinine (as C)	amino acids	108
Cresol isomers	phenols	63
Cresol (o-,m-,p-)	phenols	63
Crotonic acid	acids	85
Cyclocitral	aldehydes	78
Cyclohexane	(1,2,3) cyclohexane	103
Cyclohexane carboxylic acid	carboxylic acids	85
Cyclohexanol	alcohols	95
Cyclohexanone	ketones	78
Cyclohexene	(1,2,3) cyclohexene	103
Cyclohexylether	ethers	78
Cyclooctadiene (1,5-)	(1,2,3) cyclooctadiene	103
Cyclopentadiene	(1,2,3) cyclopentadiene	103
Cyclopentane	(1,2,3) cyclopentane	103
Cyclopentene & Methylcyclopentene	(1,2,3) cyclopentene	104
Cymene	(1,2,3) cymene	98
Cymene (p-)	(1,2,3) cymene	98
Cystine	amino acids	108
DDD (o,p',p,p'-)	DDT isomers	34
DDE (o,p',p,p'-)	DDT isomers	35
DDT (o,p',p,p'-)	DDT isomers	36
Decane isomers (n-)	paraffins	104
Decane (iso-,n-)	paraffins	104
Decanoic acid (capric)	carboxylic acids	85
Decanol (1-)	alcohols	95
DEF (SSS, Tributylphosphorothioate)	phosphorothioates	84
Dehydroabietic acid	terpenoids	25
Deoxyribose	sugars	111
Detergent, non-ionic	detergents	73
Diacetone alcohol	alcohols	78
Dialkyl phthalate	phthalates	91
Diamino-dicyclohexylmethane (4,4'-)	diamines	15
Di-t-amylbenzoquinone	quinones	63
Diazinon	pesticides	24
Dibenzanthracene (1,2,5,6-)	polycyclic aromatic hydrocarbons	6
Dibenzofuran	(1,2,3) dibenzofuran	69
Di-benzoxazole-2-ylthiophene(2,5-)optical brightener	optical brighteners	74
Dibromobenzene	halogenated hydrocarbons	39
Dibromochloromethane	halogenated hydrocarbons	39
Dibromodichloroethane	halogenated hydrocarbons	39
Dibromomethane	halogenated hydrocarbons	39
Dibromo-1-propanol (2,3-)	halogenated hydrocarbons	39
Dibromopropene isomer	halogenated hydrocarbons	39
Dibutoxyethoxyethoxymethane	ethers	78
Dibutylamine	amines	15
Di-t-butyl-p-benzoquinone (2,6-)	quinones	64
Di-t-butyl cresol (2,5-)	phenols	64
Di-t-butyl-p-cresol	phenols	64
Di-butyl-4-ethoxyphenol	phenols	64
Di-t-butyl-4-ethylphenol (2,6-)	phenols	64
Di-t-butyl-2-hydroxymethylphenol (2,6-)	phenols	64
Di-t-butyl-4-hydroxyphenyl ethane (1,2-bis-3,5)	phenols	64

Di-t-butyl-2-hydroxyphenyl methane (bis,3,5-)	64
Di-t-butyl-4-hydroxyphenyl methane (bis,3,5)	64
Di-t-butyl-4-methoxyphenol (2,6-)	64
Di-t-butyl-4-methylphenol (2,6-)	64
Dibutyl phthalate	91
Di-iso butyl carbinol	95
Di-iso butyl phthalate	91
Dicamba	39
Dichloroacetate derivative	39
Dichloroaniline	15
Dichloroaniline	15
Dichloroaniline (3,4-)	20
Dichloroanisole	39
Dichloroazobenzene	19
Dichlorobenzene	39
Dichlorobenzene (o-,m-,p-)	40
Dichlorobenzonitrile	19
Dichlorobenzonitrile (2,6-)	19
Dichlorobiphenyls	41
Dichlorobromomethane	41
Dichlorobutane	41
Dichlorobutylether (bis)	41
Dichlorodibenzyl	41
Dichlorodifluorethane	41
Dichlorodimethoxybenzene	41
Dichloroethane	41
Dichloroethane (1,2-)	41
Dichloro-bis(ethoxy)benzene	41
Dichlorethyl benzene	41
Dichloroethylene	41
Dichloroethyl ether	42
Dichloro-2-hydroxyphenyl sulphide (bis 3,5-)	42
Dichloromethoxybenzene	42
Dichloromethoxytoluene	42
Dichloromethylbenzene	42
Dichloro-g-methyl benzyl alcohol	42
Di-(chloroisopropyl)ether	42
Dichloronitrobenzene	20
Dichloronitrotoluene	20
Dichlorophenols	42
Dichlorophenol (2,4-,2,6-)	42
Dichlorophenyl sulphone (4,4'-)	42
Dichloropropane	42
Dichloroprop	43
Dichloropropene	43
Dichloropropene (1,3-)	43
Dichlorotoluene	43
Dichlorophenoxyacetic acid (2,4-)	43
Dicyanobenzene	19
Dicyclohexyl phthalate	92
Didecyl ether	78
Didecyl phthalate	92
Dieldrin	43
Diethoxypropane (1,1-)	78
Diethylamine	15
Diethylbenzene	98
Di-2-ethyl-n-butyl phthalate	92
Diethylether	78

Diethylformamide (N,N-)	15
Di-(2-ethylhexyl)adipate	92
Di-(2-ethylhexyl)phthalate	92
Diethylphthalate	92
Diethylthiophene (2,5-)	60
Diheptylphthalate	92
Dihexylphthalate	92
Dihydrocarvone	78
Dihydroxyacetophenone	78
Di-isopropyl benzene(1,3-)	93
Dimethoxyacetophenone	78
Dimethoxyacetophenone (3,4-)	78
Dimethoxybenzaldehyde (3,4-)	78
Dimethoxybenzene	79
Dimethoxyethyl benzene (3,4-)	79
Dimethoxy-4-hydro (3,5-)	79
Dimethoxypropiophenone (3,4-)	79
Dimethylamine	15
Dimethylaniline	15
Dimethylaniline (N,N'-)	15
Dimethylbenzene isomers	98
Dimethylbenzene (1,2-,1,3-,1,4-)	98
Dimethyldiphenyl sulphone (2,4-)	60
Dimethyldisulphide	60
Dimethylethyl benzene	99
Dimethylformamide (N,N-)	15
Dimethylnitrobenzoic acid	20
Dimethylnaphthalene isomers	6
Dimethylnaphthalene (2,6-)	6
Dimethyl oxindole	69
Dimethylphenol (2,5-,3,4-,3,5-)	64
Dimethylphthalate	92
Dimethyl pyridine isomer	69
Dimethyl quinoline isomers	64
Dimethyl-p-quinone	65
Dimethyl styrene	104
Dimethyl sulphone	60
Dimethyl sulphoxide	60
Dimethyl tridecanoic acid (10,12-)	85
Dimethyl trisulphide	60
Dimethylxanthine (1,7-)	69
Dinitrobenzene	20
Dinitro-o-cresol (4,6-)	20
Dinitromethylbenzene (2,4-,2,6-)	20
Dinitro-toluene (2,4-,2,6-,3,4-)	20
Dinonyl phthalate	93
Diocyladipate	93
Diocyl phthalate	93
Di-n-octyl phthalate	93
Di-iso-octyl phthalate	93
Diphenylamine	15
Diphenylene oxide	79
Diphenylene sulphide	60
Diphenylethane	99
Diphenylether	79
Diphenylmercury	59
Diphenylmethane	99
Diphenyl-phenyl ether	79
Diphenylpropanol (3,3-)	95
Diphenyl sulphone	60

Dipropyl phthalate	93
Dithiane (P-)	61
Ditolylether	79
Docosanoic acid (C22, behenic)	85
Dodecane (N-)	104
Dodecanoic acid (Lauric)	85
Dodecylbenzene	99
Dodecylbenzene sodium sulphonate	73
Dodecylbenzene sulphonic acid	73
Eicosane	104
Eicosanoic acid (C20, arachidic)	85
Endo-2-Camphanol	95
Endosulfan (thiodan), ( $\alpha$ - & $\beta$ -, $\alpha$ -)	45
Endrin	45
Ethanol	95
Ethoxyethanol (2-)	79
Ethylacetophenone	79
Ethylamine	15
Ethylbenzene	99
Ethylbenzylether	79
Ethylcarbamate	15
Ethylcarbamate	96
EDTA	16
Ethylhexanoic acid (2-)	85
Ethylhexanol (2-)	96
Ethylhexylazelate (Bis-2-)	93
Ethylidenecyclopentane	104
Ethylindane	99
Ethylisothiocyanate	61
Ethyl-naphthalene isomer	7
Ethylphenol (o-, m-, p-)	65
Ethylphenylacetamide (N-)	16
Ethylphenyl phthalate	93
Ethyltoluene (2-, 3-, 4-)	99
Ethyltoluene isomers	104
Ethyltoluidine (N-)	16
Ethylxylene	99
Eugenol and isomers	96
Exo-2-camphanol	96
Fatty acid methyl esters	93
Fenac	46
Fenchone	79
Fenchylalcohol	96
Fluoranthene	7
Fluoranthene and pyrene	7
Fluorene	7
Fluorescing material, total	74
Food CI blue 3 or C I acid blue 1	114
Formic acid	85
Formylthiophene (2-)	61
Fructose	111
Fulvic acid	85
Fumaric acid	85
Furfural	79
Galactose	111
Galloic acid	65
Geosmine	96
Glucose	111
Glutamic acid	85
Glutamic acid	108
Glutamine	108
Glycerol	96

Glycine	108
Glycine and serine	108
Guaiacol	65
Guanosine	114
Heineicosane	104
Heptachlor	46
Heptachlor epoxide	46
Heptachlorobiphenyl	47
Heptachloronorbornene	47
Heptachloronorbornene (1,2,3,4,5,7,7-)	47
Heptadecane	104
Heptadecanoic acid (C17, margaric)	86
Heptadecene (1-)	105
Heptane	105
Heptanoic acid	86
Heptanol	96
Heptylbenzene	99
Hexachlor epoxide	47
Hexachloroacetone	47
Hexachlorobenzene	47
Hexachlorobiphenyls	48
Hexachlorobutadiene	48
Hexachlorobutadiene (1,3-)	48
Hexachlorocyclohexane	48
Hexachlorocyclopentadiene	48
Hexachloroethane	48
Hexachloronorbornadiene and isomers	48
Hexadecane	105
Hexadieneal	80
Hexanol (1-)	96
Hexylaniline	16
Hexylbenzene	99
Higher fatty acids (as C)	86
Hippuric acid	86
Hippuric acid	109
Histidine and Lysine	109
Homovanillic acid	86
Humic acid	86
Hydrocarbons (C <sub>1</sub> -C <sub>4</sub> )	105
Hydrogen sulphide	61
Hydroxyacetophenone (p-)	80
Hydroxybenzaldehyde (p-)	80
Hydroxy benzamide	16
Hydroxybenzoic acid	65
Hydroxybenzoic acid, (3-,4-)	65
Hydroxybiphenyl isomer	65
Hydroxy-3-methoxypropiofenone (4-)	80
Hydroxy- $\alpha$ -methyl-2-pentanone ( $\alpha$ -)	80
Hydroxymyristic acid ( $\beta$ -)	86
Hydroxypalmitic acid ( $\beta$ -)	86
Hydroxyphenyl acetic acid (4-)	65
Hydroxyphenylhydracrylic acid (3-)	65
Hydroxyphenylpropionic acid (3-)	65
Hydroxypropylether (bis-2-)	80
Hydroxystearic acid ( $\beta$ -)	86
Hydroxythiophenol (p-)	61
Idanone (1-)	80
Indane	100

Indane	100
Indene	7
Indeno (1,2,3-cd) pyrene	8
Indican	69
Indole	69
Indole acids	69
Inosine	69
Isobutanol	80
Isoborneol	96
Isobutyl benzene	100
Isobutyric acid	86
Isocyanic acid	19
Isodecane	106
Isododecane	106
Isodrin & isomers	48
Isononane	106
Isooctenone	80
Isooctylphthalate	93
Isopalmitic acid	86
Isopentyl alcohol	96
Isophorone	80
Isopimaric acid	86
Isopropenyl-4-isopropyl benzene (1-)	106
Isopropylbenzene	100
Isopropyl diphenylamine (p-)	16
Isopropyltoluene	100
Isoundecane	106
Isoundecene	106
Isovaleric acid	86
Lactic acid	86
Lactose	111
Lauryl sulphate	61
Leucine	109
Lignoceric acid	86
Limonene	106
Linoleic acid	86
Lutidine (2,5-)	69
Lysine & Histidine	109
Malathion	24
Maleic acid	87
Malonic acid	87
Maltose	111
Mandelic acid	87
Mannose	111
MCPA (4-chloro-2-methylphenoxyacetic acid)	49
MCPB (4-(4-chloro-2-methylphenoxy)butyric acid)	49
Mecoprop (2-(4-chloro-2-methyl phenoxy)propionic acid)	49
Menthen-1,8-ol(p-)	96
Mercaptobenzothiazole(2-)	61
Methanol	96
Methoxybenzaldehyde	80
Methoxychlor	49
Methoxy-4-pentylbenzene (1-)	80
Methoxyphenol	49
Methoxy-4-(1-propenyl)Benzene (1-)	80
Methoxypropiophenone	80
Methylabietate	93
Methylamine	16
Methylaniline (2-,3-,4-)	16
Methylbenzothiazole	61

Methylbenzothiazole (2-)	61
Methylbenzothiazolysulphone	61
Methylbenzyl alcohol	97
Methylbiphenyl	100
Methylbiphenyl (3-)	9
Methylbiphenyl isomers	9
Methyl-N-butylbenzamide (p-)	16
Methylcatechol (3-,4-)	65
Methyl chloride	49
Methyl-2-chloro-4-nitrobenzene (1-)	21
Methylchlorophenyl sulphone	49
Methylchloropyridine (bis-)	49
Methylcyanobenzene	19
Methylcyclohexane	106
Methylcyclopentan-1,2-diol(3-)	97
Methylcymene	100
Methyldichlorodiphenylmethane	49
Methyl 3,4-dimethoxybenzoate	80
Methyl 3,4-dimethoxybenzylether	80
Methylene chloride	49
Methyl-4-ethylbenzene (1-)	69
Methyl-4-ethyldioxolane (2-)	69
Methyl ethyl naphthalene isomer	9
Methyl-5-ethyl pyridine (2-)	69
Methylethylpyridine	69
Methylindanes	100
Methylindene	9
Methylindene (3-)	9
Methylindole (3-)	69
Methylinosine (1-)	70
Methylisoborneol (2-)	97
Methylisopropylbenzene	100
Methyl-4-isopropylcyclohexa-1,3-diene(1-)	100
Methyl-4-isopropenylcyclohexane (2-)	106
Methylmercuric chloride	50
Methylmercuric chloride	59
Methyl mercury	59
Methyl myristate	93
Methylnaphthalene (1-,2-)	9
Methylnaphthalene isomers	9
Methylnitrobenzoic acid	21
Methyl nitro quinoline	21
Methyl palmitate	93
Methyl pentadecanoic acid (13-)	87
Methyl 2-pentalone	80
Methyl-2-pentanol (2-)	97
Methylphenanthrene	10
Methylpropylbenzene	100
Methylpropylpyridine	70
Methylpyridine	70
Methyl-2-pyridone-5-carboxamide (N-)	16
Methyl-4-pyridone-3-carboxamide (N-)	16
Methylquinoline isomers	65
Methylstearate	94
Methylstyrene (o-)	100
Methylstyrene isomers	100



Methylthiobenzthiazole (2-)	61
Methyltoluidine	16
Methyltrichloroaniline (N-)	50
Methyltrisulphide	61
Methylxanthine (1-,2-,7-)	70
Monoterpenic alcohol	97
Myristic acid	87
Napthalane	10
Napththoic acid (2-)	87
Napththols	65
Napththol (1-,2-)	66
Napththylamine and benzidine	17
Neocabiatic acid	87
Nicotinic acid	114
Nitroaniline	16
Nitroanisole (0-)	21
Nitrobenzene	21
Nitrobenzoic acid (p-)	21
Nitrobenzotrifluoride (3-)	21
Nitrobiphenyl	21
Nitrobiphenyl (2-)	21
Nitrochlorobenzene (o-, p-)	21
Nitrochlorobenzene (p-)	22
Nitrochlorotoluene	21
Nitrocresol	22
Nitro-p-cresol (2-)	22
Nitro-m-dimethylbenzene	22
Nitrodimethylphenol	22
Nitroethoxy benzene	22
Nitroethoxy benzene (o-)	22
Nitromethoxybenzene (o-)	22
Nitromethylbenzene (2-)	22
Nitromethylphenol	22
Nitronapthalene	22
Nitronapthalene (1-)	22
Nitrophenol	22
Nitrophenol (o-)	22
Nitrophenyl phenyl either	22
Nitropropylbenzene	22
Nitrotoluene	22
Nitrotoluene (o-,m-,p-)	23
Nitrotoluidine	17
Nitroxylene	23
Nitro-p-xylene	23
Nitro-m-xylene (2-)	23
Nitroxyleneol	23
Nitro-m-xylol (2-)	23
Nonachlor	50
Nonadecane	106
Nonadecanoic acid (C <sub>19</sub> )	87
Nonane (N-)	106
Nonanoic acid (pelargonic)	87
Non-ionic detergent	73
Nonyl aldehyde (n-)	81
Nonylphenol	66
Nonylphenol (o, p-)	66
Norcamphor	81
NTA	17

Octachlorodibenzoparadioxane	50
Octadecane	106
Octane	106
Octanoic acid (caprylic)	87
Octanol (1-)	97
Octylbutylfumarate	94
Octyl chloride	50
Octyl 2-ethylhexylphthalate (n-)	94
Octylmercaptan (n-)	61
Octylphenol	66
Oleic acid	87
Oxalic acid	87
PAH, total	12
Palmitic acid	88
Palmitoleic acid	88
Pantothenic acid	114
Paraldehyde	81
PCB's	50
Pentachloroacetone	51
Pentachloroanisole	51
Pentachlorobenzene	51
Pentachlorobiphenyls	52
Pentachlorobutadiene	52
Pentachlorobutene	52
Pentachlorocyclohexane	52
Pentachloromethoxybenzene	52
Pentachloromethylbenzene	52
Pentachlorophenol	52
Pentadecane	107
Pentadecanoic acid	88
Pentadecanoic acid, methylester	94
Pentadecene (1-)	107
Pentane	107
Pentanol (1-)	97
Pentene	107
Pentylaniline	17
Pentylbenzene	100
Pentylpyridine	70
Peptides, total	109
Perylene	10
Phenanthrene	11
Phenol	66
Phenyl acetic acid	88
Phenyl alanine	109
Phenylbenzoate	94
Phenylether	81
Phenylmercuric chloride	59
Phenylmethylcarbinol	97
Phenyl octadecanol	97
Phenyl phenol (o-)	66
Phenylphenol isomers	66
Phenylphthalimide (N-)	17
Phenylpropanol	97

Phenylpropionic acid	88
Phenyl-2-thiopropene (1-)	61
Phloroglucinol	67
Phosphatase	114
Phthalate esters, total	94
Phthalic acid (o-)	88
Phthalic acid dinitrile	19
Phthalic anhydride	88
Picolylpropylether (-)	70
Picrolam, (4-amino-3,5,6-trichloropicolinic acid)	17
Pimaric acid	88
Pinene ( $\beta$ -)	107
Pinene isomer	107
Piperidine	70
Polyhydroxyphenols	67
Polysaccharides, total	112
Proline	109
Propanol	97
Propanol (2-)	97
Propionic acid	88
Propionyl thiophene (2-)	61
Propylamine	17
Propylaniline	17
Propylbenzene	101
Propylbenzene (iso-)	101
Propyl-p-phenols (i-)	67
Propylphenol (4-n-)	67
Propylphenyl ether	81
Propyltoluene	101
Protein, total	110
Pteroglutamic acid (folic acid)	114
Putrescine	17
Pyrazoline types A & B optical brighteners	74
Pyrene	11
Pyrene & fluoranthene	12
Pyridine	70
Pyrocatechol	67
Pyrrole	70
Quaicol methyl ether	81
Quinoline	67
Quinoline type optical brighteners	74
Raffinose	111
Resorcinol	67
Rhamnose	111
Rhodamine B	17
Ribose	111
Ronnell (trolene)	24
Saccharase	114
Salicylic acid	67
Saligenin	67
Serine	109
Skatole acetic acid	70
Sorbose	111
Stearic acid	89
Steroids, total	113
Steroid hormones, total syntehtic	113
Styrene	101
Succinic acid	89
Sucrose	111
Sulphur dioxide	61
Syringaldehyde	81

Tannic acid	67
Tannins	89
Terephthalic acid	89
Terpene	107
Terpheny(o-)	12
Terpinene	107
Terpinene-4-ol	97
Terpineol(α-)	97
Terpinolene	107
Tetrachloroacetone (1,1,3,3-)	52
Tetrachloroanisole	52
Tetrachlorobenzene (1,2,3,4-,1,2,3,5-,1,2,4,5-)	52
Tetrachlorobenzoquinone	52
Tetrachlorobiphenyls	53
Tetrachlorobutadiene	53
Tetrachlorodibenzyl	53
Tetrachloroethane	53
Tetrachloroethane (1,1,2,2-)	53
Tetrachloroethylene	53
Tetrachloroethylene (1,1,2,2-)	53
Tetrachloroethylstyrene	54
Tetrachlorohydroxy-phenoxytrichlorobenzoquinone	54
Tetrachlormethoxytoluene	54
Tetrachloromethane	54
Tetrachloromethoxybenzene	54
Tetrachloromethylbenzene	54
Tetrachlorophenol	54
Tetrachlorophthalate derivative	54
Tetrachloro-isopropylether	54
Tetrachloroquinone	55
Tetrachlorotoluene	55
Tetracosanic acid (C24, lignoceric)	89
Tetradecane	107
Tetralin	101
Tetramethylbenzene isomers	101
Tetramethylbenzene (1,2,3,5-,1,2,4,5-)	101
Tetramethyldiphenylmethane	101
Tetramethylnaphthalene	12
Theobromine	70
Thiodiethanol (2,2-)	62
Thiomethylbenzothiazole (2-)	62
Thiophene type optical brighteners	74
Thiophenol	62
Threonine	109
Thymine	70
Thymol	67
Toluene	101
Toluenesulphonamide (P-)	17
Toluic acid	89
Toluidine(o-)	17
Total acids organic	89
Total acids soluble	89
Total aldehydes	81
Total amides	17
Total amines volatile	17
Total amino acids bound	109
Total amino acids free	109
Total carbohydrates	112
Total fluorescing material - optical brighteners	74

Total PAH	12
Total peptides	109
Total phenols volatile	67
Total phthalate esters	94
Total polysaccharides	112
Total protein	110
Total steroids	113
Total steroid hormones synthetic	113
Toxaphene	55
Tributylamine	18
Tr-t-butylbenzene	102
Tributylphosphate	24
Tri-n-butyl phosphate	24
Trichloroanisole (2,4,5-)	55
Trichlorobenzene isomers (1,2,3-)	55
Trichlorobenzene (1,2,4-,1,3,5-)	56
Trichlorobenzoic acid (2,3,6-)	56
Trichlorobiphenyl	56
Trichlorocumene	56
Trichlorocyclopentene isomers	56
Trichlorodimethylbenzene	56
Trichloroethane (1,1,2-, 1,1,1-)	56
Trichloroethylbenzene	57
Trichloroethylene	57
Trichloroethylene (1,1,2-)	57
Trichlorofluoromethane	57
Trichloroquaiacol	57
Trichlorohydroxybenzoquinone	57
Trichloromethane	57
Trichloro-n-methyl anisole	57
Trichloromethoxy benzene	57
Trichloromethyl benzene	57
Trichloro- $\alpha$ -methyl benzyl alcohol	57
Trichloromethylene	58
Trichloromethyl styrene	58
Trichloronitrobenzene	23
Trichlorophenol	58
Trichlorophenyl 4-chlorophenyl sulphone (2,4,5-)	58
Trichlorophthalate derivative	58
Tridecane (n-)	107
Triethylamine	18
Triethylorthoformate	94
Triethyl phosphate	24
Triethylurea	18
Trimethoxyacetophenone (3,4,5-)	81
Trimethylamine	18
Trimethylbenzenes	102
Trimethylbenzene (1,2,3-,1,2,4-,1,3,5-)	102
Trimethyl diphenyl benzene	102
Trimethyldiphenyl methane	102
Trimethylindole	70
Trimethylphenol (2,4,6-)	67
Trimethyl pyridine (2,4,6-)	70
Trimethyltrioxohexahydrotriazine	70
Trinitrotoluene (2,4,6-)	23
Triphenylphosphate	24
Triphenylphospin oxide	24
Tris-(2-chloroethyl)phosphate	24
Tris-(2-ethylhexyl)phosphate	24
Tryptophan	110
Tyrosine	110
Tyrosine and Valine	110

Undecane (isomers)	107
Undecanoic acid	89
Uracil	70
Urea	18
Uric acid	71
Urochromes	114
Valeric acid	89
Valeric acid (i-,n-)	89
Valine	110
Vanillin	67
Vanillin methylether	81
Veratraldehyde	81
Veratrole	81
Vitamin B1 (thiamine)	114
Vitamin B12	114
Xanthine	71
Xanthophylls	114
Xylene (m-,o-,p-,isomers)	102
Xylenol (2,3-)	67
Xylenol (2,4-,2,4&3,5-,2,5-,2,6-,3,4-,3,5-)	68
Xylose	112