

Table 4-3 Summary of Results of the FY2003 Monitoring Investigation

Survey No.	Substance	Surface water 36 areas, 36 samples		Bottom sediment 62 areas, 186 samples		Wildlife						Air			
						Shellfish 6 areas, 30 samples		Fish 14 areas, 70 samples		Birds 2 areas, 10 samples		1 st : warm season 35 areas, 35 samples		2 nd : cold season 34 areas, 34 samples	
		Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean
1	PCBs	pg/L	pg/L	pg/g-dry	pg/g-dry	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/m ³	pg/m ³	pg/m ³	pg/m ³
1	PCBs	230 - 3,100	530	39 - 5,600,000	8,200	1,000 - 130,000	11,000	870 - 150,000	11,000	6,800 - 42,000	18,000	36 - 2,600	260	17 - 630	110
2	HCB	11 - 340	29	5 - 42,000	140	tr (21) - 660	44	28 - 1,500	170	790 - 4,700	1,700	81 - 430	150	64 - 320	94
3	Drins														
3.1	Aldrin	ND - 3.8	0.9	ND - 1,000	17	ND - 51	tr (1.6)	ND - tr (1.9)	ND	ND	ND	ND - 28	1.5	0.030 - 6.9	0.55
3.2	Dieldrin	9.7 - 510	57	ND - 9,100	59	46 - 78,000	410	29 - 1,000	210	790 - 2,200	1300	2.1 - 260	19	tr (0.82) - 110	5.7
3.3	ENDrin	0.7 - 78	5.7	ND - 29,000	11	6.3 - 5,000	36	ND - 180	14	5.4 - 96	21	0.081 - 6.2	0.74	0.042 - 2.1	0.23
4	DDTs														
4.1	p,p'-DDT	tr (2.8) - 740	14	3 - 55,000	240	49 - 1,800	290	tr (3.7) - 1,900	210	180 - 1,400	540	0.75 - 24	5.8	0.31 - 11	1.7
4.2	p,p'-DDE	5 - 380	26	9.5 - 80,000	710	190 - 6,500	1,100	180 - 12,000	2,000	18,000 - 240,000	63,000	1.2 - 51	7.2	1.1 - 22	2.8
4.3	p,p'-DDD	4 - 410	19	3.7 - 32,000	590	tr (7.5) - 2,600	380	43 - 3,700	500	110 - 3,900	590	0.063 - 1.4	0.30	tr (0.037) - 0.52	0.13
4.4	o,p'-DDT	tr (1.5) - 100	5.6	ND - 3,200	43	35 - 480	130	2.9 - 520	80	8.3 - 66	18	0.61 - 38	6.9	0.43 - 6.4	1.6
4.5	o,p'-DDE	tr (0.42) - 170	2.2	tr (0.5) - 24,000	43	17 - 460	84	ND - 2,500	48	ND - 4.2	tr (2.0)	0.17 - 7.5	1.4	0.18 - 1.7	0.50
4.6	o,p'-DDD	1.1 - 160	7.1	tr (1.0) - 8,800	140	6.5 - 1,900	200	ND - 920	73	tr (5.0) - 36	14	0.059 - 1.3	0.37	0.062 - 0.42	0.15

Note: Geometric mean was calculated, assuming ND as one half of the detection limit.

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Survey No.	Substance	Surface water 36 areas, 36 samples		Bottom sediment 62 areas, 186 samples		Wildlife						Air			
						Shellfish 6 areas, 30 samples		Fish 14 areas, 70 samples		Birds 2 areas, 10 samples		1 st : warm season 35 areas, 35 samples		2 nd : cold season 34 areas, 34 samples	
		Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean
5	Chlordanes	pg/L	pg/L	pg/g-dry	pg/g-dry	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/m ³	pg/m ³	pg/m ³	pg/m ³
5.1	<i>trans</i> -Chlordane	6 - 410	34	tr (2.4) - 13,000	120	69 - 2,800	550	9.6 - 1,800	150	tr (5.9) - 27	11	6.5 - 2,000	130	2.5 - 290	37
5.2	<i>cis</i> -Chlordane	12 - 920	69	tr (3.6) - 19,000	170	110 - 14,000	1,100	43 - 4,400	490	6.8 - 370	47	6.4 - 1,600	110	2.5 - 220	30
5.3	<i>trans</i> -Nonachlor	4 - 450	26	2 - 11,000	100	140 - 3,800	780	85 - 5,800	880	350 - 3,700	1,100	5.1 - 1,200	87	2.1 - 180	24
5.4	<i>cis</i> -Nonachlor	1.3 - 130	8.0	ND - 6,500	59	48 - 1,800	290	19 - 2,600	350	68 - 660	200	0.81 - 220	12	0.18 - 23	2.7
5.5	Oxychlordane	tr (0.6) - 39	3.0	ND - 85	2.1	11 - 1,900	90	30 - 820	140	610 - 1,300	750	0.41 - 12	2.5	0.41 - 3.2	0.87
6	Heptachlors														
6.1	Heptachlor	tr (1.0) - 7	tr (1.8)	ND - 160	2.4	ND - 14	tr (2.8)	ND - 11	ND	ND	ND	1.1 - 240	27	0.39 - 65	10
6.2	<i>trans</i> -Heptachlor epoxide	ND - 2	ND	ND	ND	ND - 48	ND	ND	ND	ND	ND	ND - 0.30	tr (0.036)	ND - tr (0.094)	ND
6.3	<i>cis</i> -Heptachlor epoxide	1.2 - 170	9.8	ND - 160	3.7	9.7 - 880	42	7 - 320	42	370 - 770	520	0.45 - 28	3.5	0.49 - 6.6	1.3
7	Toxaphene														
7.1	Parlar-26	ND	ND	ND	ND	ND - tr (39)	ND	ND - 810	tr (29)	ND - 2,500	110	tr (0.17) - 0.77	tr (0.091) - 0.27	tr (0.17)	tr (0.091) - 0.27
7.2	Parlar-50	ND	ND	ND	ND	ND - 58	tr (13)	ND - 1,100	34	ND - 3,000	110	ND - tr (0.37)	ND	ND	ND
7.3	Parlar-62	ND	ND	ND	ND	ND	ND	ND - 580	ND	ND - 530	tr (96)	ND	ND	ND	ND
8	Mirex	ND - 0.8	tr (0.13)	ND - 1,500	1.8	tr (1.6) - 19	4.8	tr (1.7) - 25	7.9	31 - 450	110	0.047 - 0.19	0.024 - 0.099	0.044	0.024 - 0.099

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		Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean	Range	Geometric mean
9	HCHs	pg/L	pg/L	pg/g-dry	pg/g-dry	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/g-wet	pg/m ³	pg/m ³	pg/m ³	pg/m ³
9.1	α -HCH	13 - 970	120	2 - 9,500	140	9.9 - 610	45	2.6 - 590	41	30 - 230	70	38 - 5,000	9.9 - 1,400	49	9.9 - 1,400
9.2	β -HCH	14 - 1,700	250	5 - 39,000	220	23 - 1,100	77	tr (3.5) - 1,100	78	1,800 - 5,900	3,400	1.1 - 97	0.52 - 57	2.1	0.52 - 57
9.3	γ -HCH	32 - 370	92	tr (1.4) - 4,000	45	5.2 - 130	19	tr (1.7) - 130	16	3.7 - 40	14	8.8 - 2,200	3.1 - 330	14	3.1 - 330
9.4	δ -HCH	tr (1.1) - 200	14	ND - 5,400	37	ND - 1,300	7.2	ND - 16	tr (3.5)	12 - 31	18	0.48 - 120	0.11 - 47	0.97	0.11 - 47
10	Organotin compounds	ng/g-dry	ng/g-dry	ng/g-wet	ng/g-wet	ng/g-wet	ng/g-wet	ng/g-wet	ng/g-wet	ng/g-wet	ng/g-wet				
10.1	TBT	ND - 450	3.0	tr (2) - 25	10	ND - 72	7	ND - tr (1)	ND						
10.2	DBT	ND - 640	5.5	tr (2) - 53	14	ND - 7	tr (1)	ND - tr (3)	ND						
10.3	TPT	ND - 540	tr (0.27)	ND - 27	2.8	ND - 30	5.3	ND	ND						
10.4	DPT	ND - 120	tr (0.14)	ND - 1.6	ND	ND - tr (1.3)	ND	ND	ND						
10.5	MPT	ND - 1,000	tr (1.9)	ND	ND	ND	ND	ND	ND						
11	Tetrabromobis-phenol A	ND	ND	ND - 0.16	ND	ND - 0.15	ND	ND	ND						

Note 1: Hatched area are not targeted in the FY2003 survey.

Note 2: Geometric mean was calculated, assuming ND as one half of the detection limit.