

Contract 420

**Mercury and Methylmercury in the River Yare,
Norfolk (1986 - 1992)**

Annex to Main Report



ENVIRONMENT AGENCY

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**Environmental and Water Resource Engineering Section
Imperial College of Science, Technology and Medicine**

Anglian Region Operational Investigation

Annex to Main Report OI 420/8/A

**NRA***National Rivers Authority*

ANNEX

to Report IO/420/8/A

**Mercury and methylmercury in the River Yare, Norfolk.
Comprehensive data set 1986-1992**

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**Report to the National Rivers Authority, Anglian Region.
December 1992**

By

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Annex I(i). River Yare surficial sediment survey data: 1986 Annual Survey

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	T.Cu (mg kg ⁻¹)	Sediment type	%VS
7i	-3.35	2.79	<0.7	32.0	sand	7.24
7ii		2.09		41.1	sand/silt	10.9
7iii		2.36		54.8	silt	17.2
7iv		1.83		81.3	silt	18.8
7v		2.11		64.7	silt	12.9
7vi	-3.32	1.36		80.8	silt	18.5
7vii		2.25		75.8	silt	21.8
7viii		2.61		98.3	silt	19.6
7ix		1.62		52.6	silt	19.3
7x		1.95		36.7	sand/silt	12.6
8i	-2.15	3.53		87.8	sand	9.33
8ii		1.48		83.3	silt	23.2
8iii		4.06		94.2	silt	22.4
8iv		3.24		93.2	silt	16.5
8v		2.23		105	grit/silt	20.1
8vi	-2.12	2.90		93.3	silt	20.6
8vii		2.49		88.3	silt	22.7
8viii		3.17		96.3	silt	22.4
8ix		2.56		53.6	silt	29.4
8x		3.73		101	grit/silt	21.7
9i	-1.41	0.16		5.00	sand/chalk	1.94
9ii		0.57		11.4	sand/chalk	4.98
9iii		0.26		13.1	chalk	1.91
9iv		0.21		6.14	sand/silt	1.86
9v		2.49		74.2	sand/chalk	9.40
9vi	-1.38	0.20		10.0	chalk/flint	1.66
9vii		0.37		6.20	sand	1.66
9viii		1.26		61.3	silt	9.81
9ix		1.82		46.9	silt	11.6
9x		0.73		27.3	sand/chalk	4.17
10i	-0.41	0.98	13.2	41.6	sand/chalk	6.10
10ii		2.56		-	silt	13.7
10iii		-		-	shell only	-
10iv		2.84		104	silt	11.1
10v		1.58		53.5	silt	27.4
10vi	-0.38	2.96		58.8	silt/sand	11.3
10vii		3.76		97.4	silt	15.7
10viii		5.78		248	silt	15.6
10ix		6.04		87.5	silt/clay	13.6
10x		3.77		167	silt/clay	15.4
11i	-0.22	2.36		97.5	silt	9.87
11ii		4.21		155	silt	15.2
11iii		2.84		243	silt/twigs	23.7
11iv		17.2		76.2	silt/sand	7.16
11v		2.20		157	silt/sand	11.7
11vi	-0.19	5.53		164	silt	23.9
11vii		2.17		124	silt	17.3
11viii		-		-	flint only	-
11ix		16.2		59.6	silt/sand	9.38
11x		3.24		-	sand/chalk	2.01

Annex I(i).
1986 Annual Survey cont.

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	T.Cu (mg kg ⁻¹)	Sediment type	%VS
12i	0.44	2.60		52.3	silt/sand	4.64
12ii		1.76		32.2	chalk/sand	2.46
12iii		1.06		25.7	chalk/silt	3.58
12iv		0.94		11.2	chalk/flint	2.85
12v		0.05		4.64	chalk/flint	1.38
12vi	0.47	2.34		125	silt	12.6
12vii		2.11		71.8	silt	5.12
12viii		1.38		40.9	flint/silt	9.34
12ix		0.30		9.11	chalk/sand	0.91
12x		0.31		10.7	chalk/sand	2.06
13i	1.32	7.63		122	silt	21.7
13ii		7.56		141	silt	12.9
13iii		12.0		178	silt	16.7
13iv		13.5		304	silt	18.9
13v		2.62		36.3	silt/sand	6.25
13vi	1.35	20.0		189	silt	11.6
13vii		23.8	8.2	220	silt	17.1
13viii		12.9		270	silt	18.0
13ix		13.7		325	silt	21.1
13x		1.92		109	silt/sand	6.29
14i	2.05	2.52		64.3	silt/gravel	7.94
14ii		6.79		150	silt	13.0
14iii		29.2		135	silt	17.3
14iv		27.9		196	silt	15.8
14v		7.84		-	silt	21.1
14vi	2.08	1.51		67.5	silt/sand	5.44
14vii		2.07		-	silt/sand	4.26
14viii		19.6	3.8	211	silt	14.3
14ix		10.2		325	silt	21.9
14x		11.1		364	silt	20.3
15i	2.78	0.15		10.4	sand/clay	2.11
15ii		1.44		24.8	silt/chalk	2.74
15iii		1.85		31.9	chalk/shell	1.92
15iv		6.49		181	silt	13.7
15v		7.41		230	silt	18.4
15vi	2.81	0.03		6.82	sand/clay	0.58
15vii		0.54		13.6	silt/sand	31.4
15viii		6.76	7.0	122	silt	13.4
15ix		2.86		20.4	silt	4.47
15x		6.71		246	silt	21.0
16i	3.59	15.2		375	silt	34.2
16ii		11.9		73.5	silt	13.6
16iii		19.8		39.0	silt	7.82
16iv		19.2		125	silt	22.3
16v		8.59		228	silt	20.3
16vi	3.62	3.64		71.9	silt	8.69
16vii		2.06		65.8	silt	11.6
16viii		12.9	10.6	210	silt	20.2
16ix		17.1		143	silt	16.0
16x		8.19		181	silt	20.6

Annex I(i).
1986 Annual Survey cont.

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	T.Cu (mg kg ⁻¹)	Sediment type	%VS
17i	4.42	1.89		69.0	silt/gravel	11.9
17ii		5.02		188	silt	22.2
17iii		12.1		236	silt	20.6
17iv		19.4		-	silt/clay	13.5
17v		9.42		237	silt/clay	23.5
17vi	4.45	2.98		107	silt/grit	17.1
17vii		12.6		226	silt	17.5
17viii		15.6		148	silt/gravel	18.3
17ix		10.3	<0.7	238	silt	19.8
17x		2.25		163	silt	19.7
18i	4.91	4.14		107	silt	12.7
18ii		18.3		107	silt	24.7
18iii		6.02		124	silt/grit	10.3
18iv		7.18		118	silt	19.5
18v		5.74		130	silt	18.4
18vi	4.94	8.85		180	silt	18.7
18vii		6.27		176	silt	21.6
18viii		6.30		73.6	silt/grit	9.54
18ix		4.58		73.2	silt	12.4
18x		0.67		15.1	clay	10.5
19i	6.03	9.40		208	silt	22.9
19ii		32.9	5.0	153	silt/clay	17.4
19iii		6.45		18.4	shell	37.0
19iv		10.7		27.3	shell/silt	16.4
19v		0.40		133	silt	18.2
19vi	6.06	2.56		152	silt	16.8
19vii		0.86		36.1	silt/clay	10.5
19viii		6.67		-	shell/silt	24.2
19ix		4.74		95.3	silt/shell	16.0
19x		3.88		118	silt	30.9
20i	6.62	3.30		82.4	silt/shell	13.9
20ii		7.66		132	silt	17.2
20iii		9.25		289	silt/reed	25.2
20iv		3.89		112	silt/clay	18.3
20v		1.38		37.2	clay	10.9
20vi	6.65	3.55		60.5	sand/shell	10.4
20vii		6.36		79.2	silt/shell	13.2
20viii		4.77		103	silt/shell	19.9
20ix		4.15		146	silt	19.6
20x		3.88		85.8	silt/clay	15.0
21i	7.31	6.18		107	silt	17.8
21ii		8.41		171	silt/clay	22.5
21iii		8.74		-	shell	23.1
21iv		8.86	3.2	262	silt/shell	-
21v		0.35		207	shell	22.7
21vi	7.34	7.49		129	silt	21.1
21vii		7.53		147	silt/reed	22.4
21viii		0.38		142	shell	30.3
21ix		0.54		139	silt/gravel	35.8
21x		15.0		244	silt/gravel	31.9

Annex I(i).
1986 Annual Survey cont.

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	T.Cu (mg kg ⁻¹)	Sediment type	%VS
22i	8.18	5.27		179	silt	20.0
22ii		6.73		154	silt/grit	18.2
22iii		0.98		42	silt	14.3
22iv		5.33		120	silt/shell	22.0
22v		4.58		160	silt/shell	22.2
22vi	8.21	9.69		98.1	silt/sand	31.2
22vii		2.06		67.3	peaty silt	22.6
22viii		1.65		40.7	silt/grit	16.3
22ix		6.10		112	silt	38.2
22x		12.3		103	silt	21.5
23i	8.36	0.96		41.8	silt/clay	23.7
23ii		1.80		58.2	silt	15.8
23iii		5.25		118	silt/shell	21.3
23iv		1.90		68.7	silt/reed	22.9
23v		1.95		11.5	clay	17.3
23vi	8.39	14.0		82.3	silt	17.5
23vii		2.56		86.7	silt	16.3
23viii		4.84		158	silt/twigs	26.4
23ix		4.29		87.5	silt	15.7
23x		1.04		35.5	gravel/clay	11.2
24i	9.15	6.31		70.2	silt	19.4
24ii		1.89		60.7	silt	21.7
24iii		2.63		102	shell/silt	15.6
24iv		1.39		25.2	silt/shell	39.0
24v		2.85		53.1	silt	15.7
24vi	9.18	0.54		36.8	silt/clay	12.1
24vii		3.33		78.1	silt	21.0
24viii		-		-	shell only	-
24ix		0.28		105	silt	28.5
24x		0.79		29.6	clay/shells	10.4
25i	11.10	2.67		62.2	silt	10.2
25ii		0.28		23.8	silt/clay	12.1
25iii		7.47		177	shell	20.6
25iv		1.96		103	reed/silt	28.5
25v		3.14		39.4	silt	16.8
25vi	11.13	3.01		80.0	silt/shell	19.6
25vii		0.18		20.2	clay/silt	7.30
25viii		1.23		160	shell	19.0
25ix		3.08		104	silt/reed	21.7
25x		4.85		63.3	silt/clay	15.7
26i	12.53	1.17		30.1	clay	10.8
26ii		0.32		21.8	silt	15.2
26iii		4.19	4.0	119	shell	15.6
26iv		1.75		37.8	silt/grit	6.56
26v		0.86		19.0	silt/gravel	9.18
26vi	12.56	0.84		23.0	clay	8.83
26vii		2.53		66.8	silt/shell	14.8
26viii		3.64		52.8	shell	11.9
26ix		4.46		49.6	silt/shell	12.2
26x		2.20		54.3	silt/reed	16.4

Annex I(ii).

River Yare surficial sediment survey data: 1987 Annual Survey

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	T.Cu	Sediment type	%VS
1	-17.4	0.09		2.22		5.1
2	-15.5	0.04		6.94	sand	2.7
3	-11.6	0.05		11.9	gravel	1.6
4	-5.10	0.19	nd	35.8	sand	10.5
5	-4.85	0.25		35.4	silt	16.6
6	-4.15	1.22	0.69	26.7	gritty silt	5.4
7	-3.35	0.48	1.64	31.3	gritty silt	5.4
8	-2.15	1.58	<0.5	93.9	silt	15.9
9	-1.41	7.16	1.0	130.8	silt	16.8
11	-0.22	3.29	<0.5	103.8	r. silt	10.3
12	0.44	2.91	nd	180.9	gritty silt	15.8
13	1.32	15.2	<0.5	239.6	r. silt	17.9
14	2.05	8.72	1.55	104.2	r. silt	19.6
15	2.78	3.73	nd	185.0	silt	19.8
16	3.59	3.04	1.63	111.0	silt	17.9
17	4.42	6.55	<0.5	185.0	r. silt	
19	6.03	3.88	1.37	117.5	silt	14.4
20	6.62	4.52	1.81	100.9	gritty silt	16.9
21	7.31	3.92	1.09	100.2	r. silt	17.4
22	8.18	1.12	0.56	37.7	peaty silt	19.8
23	8.36	0.91	<0.5	29.2	gritty silt	8.0
24	9.16	2.25	<0.5	59.8	peaty silt	17.7
25	11.1	0.10	<0.5	21.7	clay	6.5
26	12.5	0.32	nd	17.4	silt	5.1
27i	13.5	0.31		20.8	clay	7.1
27ii		0.18		18.5	clay	6.4
27iii		2.17		76.3	shells	13.8
27iv		0.30		42.2	clay	10.7
27v		5.14		30.6	r. silt	12.4
28i	14.5	2.02		41.1	silt	29.9
28iv		0.21	1.16	13.8	clay	7.2
28v		0.28		12.7	r. silt	8.0
29i	15.4	0.43		12.4	gritty silt	7.8
29ii		0.55		16.1	silt	6.2
29iv		0.64		13.5	silt	9.9
29v		1.66	<0.5	30.0	r. silt	10.6
30i	16.6	0.13		24.3	clay	6.9
30ii		1.05		24.0	clay	10.2
30iii		1.17		41.7	gritty silt	10.6
30iv		4.03		91.3	gritty silt	8.4
30v		1.94		18.9	r. silty	10.2
31i	17.6	1.54	6.42	69.6	r. silty	12.4
31iii		0.79		150.8	gravel/grit	5.8
31iv		0.96		54.1	gravel/grit	8.3
32i	18.3	1.22		46.9	silt	10.5
32ii		0.77			sand	5.8
32iii		1.00		44.0	peaty grit	14.5
32iv		0.40		29.6	clay	6.6
32v		0.34		48.1	clay	6.8
33i	19.3	0.45		29.2	clay	8.6
33iii		0.26		54.5	clay	6.5
33iv		0.56		33.0	r. silt	5.5
33v		0.15	<0.5	13.9	silt	8.3

Annex I(ii).
1987 Annual Survey cont.

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	T.Cu	Sediment type	%VS
34i	20.3	1.34		38.3	silt	10.3
34ii		0.37		29.8	peat	64.9
34v		0.26		15.8	clay	6.5
35i	21.6	0.51		19.8	clay	5.4
35ii		0.24		17.3	r. silt	-
35iii		0.27		10.3	silt	5.4
35iv		1.21		20.6	shells	19.5
35v		0.98	<0.5	-	r. silt	12.6
36i	22.5	0.53		33.9	r. silt	6.9
36ii		0.27		7.33	silt	4.0
36v		0.11		10.9	silty clay	4.2
37i	23.4	0.54		19.6	peat	33.3
37ii		0.18		52.2	clay	9.7
37v		0.74	nd	16.5	silty grit	3.3
38i	24.4	1.50		14.2	silt	11.2
38ii		0.09		6.33	silt	1.7
38iii		-		15.0		-
38iv		0.11		8.25	clay	6.1
38v		0.11		15.0	clay	15.9
39i	25.4	0.36		9.62	clay	5.2
39ii		0.42		11.5	peat	81.9
39iii		0.03		20.2	peat	81.3
39iv		0.21		8.4	silty grit	7.0
39v		0.18		14.3	bank mat	8.5
40i	26.4	0.63	<0.5	18.1	silt	11.4
40ii		0.33		5.21	gritty silt	5.1
40iii		0.27		9.39	clay	4.3
40iv		0.12		10.4	clay	4.1
40v		0.07		5.73	clay	4.8
41i	27.4	0.47		41.4	clay	10.0
41iii		0.54		23.0	clay	9.1
41iv		0.21		27.2	clay	9.0
41v		2.38	<0.5	50.3	silt	11.2
42i	28.4	-		19.3	clay	11.5
42iv		0.81		25.1	peaty silt	9.2
42v		0.32		43.6	bank mat	9.8
43i	29.4	0.07		3.94	clay	6.0
43ii		0.52		17.1	silt	7.1
43iii		0.63		45.1	gritty silt	7.1
43iv		0.45	1.1	57.2	silt	12.1
43v		0.63		40.2	silt	9.1
44i	30.4	0.07		17.1	clay	6.1
44ii		0.07		9.50	clay	4.3
44iii		0.48		22.3	gritty silt	6.8
44iv		0.36		11.6	r. silt	7.6
45i	31.1	0.13	nd	14.0	silt	8.6
45ii		0.19		16.5	peat	45.3
45iii		-		25.6	gritty silt	7.8
45iv		0.41		13.9	r. silt	11.4
45v		<0.01		16.0	clay	5.8
46i	32.5	0.17		14.9	silt	8.9
47i	33.5	0.17	nd	18.6	r. silt	8.6
48i	34.5	0.05	nd	31.6	r. silt	5.1

Annex I(iii). River Yare surficial sediment survey data: 1989 Annual Survey

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	Sediment Type	Water pH	Sediment pH	%VS	%TS
4	-5.00	0.87	2.21	gravel			1.45	62.5
5	-4.85	-	0.10	grit silt			20.6	18.0
6	-4.15	0.62	3.38	gritty silt			-	-
7v	-3.35	1.14	0.91	gritty silt			18.9	22.3
8ii	-2.15	0.38	2.19	silt	7.9	6.9	18.9	24.7
9ii	-1.41	0.21	0.30	gritty silt	8	7.3	1.79	69.4
9iv	-1.41	0.99	1.35	grity silt	8	7.3	5.11	55.4
10ii	-0.50	15.91	1.43	silt	7.9	7.6	7.19	46.9
11ii	-0.22	2.59	5.89	silt	8	7.6	17.3	26.2
12i	0.44	2.63	8.27	silt	8	7.1	19.4	23.7
13ii	1.32	1.75	7.72	silt	8	7.6	17.6	23.2
14v	2.05	3.32	2.22	gritty silt	7.9	7.5	11.8	33.2
15i	2.78	1.2	1.59	gritty silt	7.8	7.3	4.49	51.3
15v	2.78	-	9.17	silt	7.8	7.4	9.78	32.5
16v	3.59	3.82	5.14	gritty silt	7.9	7.4	14.1	30.5
17v	4.42	5.57	6.36	silt	7.8	7.1	16.5	25.6
18v	5.03	1.49	2.26	gritty silt	7.9	7.7	11.5	32.1
19v	6.03	6.89	6.49	gritty silt	7.7	7.6	20.9	23.9
20ii	6.62	-	2.75	gritty silt			16.44	27.6
21i	7.31	4.36	13.68	r. silt			19.2	23.9
21v	7.31	-	2.40	peat			49.6	13.5
21vi	7.31	-	4.10	silt			13.6	31.0
22v	8.18	4.71	1.91	r. silt			22.0	18.9
23i	8.36	-	1.32		7.8	7.5	6.1	47.8
24v	9.16	2.53	3.45	gritty silt	7.9	7.4	17.7	25.3
25i	11.1	1.08	4.96	gritty silt	7.8	7.6	9.55	36.5
26v	12.5	1.21	1.19	gritty silt	8	7.8	7.6	40.4
27v	13.5	0.8	3.05	gritty silt	7.9	7.7	10.4	33.8
28iv	14.5	0.67	0.30	clay	7.9	7.7	8.95	31.7
29v	15.4	0.88	2.73	clay	7.9	7.5	15.8	28.1
30i	16.6	0.59	1.32	clay	8	7.7	8.31	37.8
31Ai	17.6	0.97	1.39	silt	7.9	7.7	4.36	54.4
31Av	17.6	1.84	0.30	gravel			2.7	47.4
31i	17.6	0.4	0.30	silt	7.9	7.7	4.78	55.5
31Bi	17.6	1.0	1.46	clay	8	7.5	10.3	34.9
31Bv	17.6	-	0.48	gravel			2.3	58.8
32v	18.3	0.22	0.56	clay	7.8	7.6	8.05	38.6
33v	19.3	0.11	0.30	clay	7.8	7.4	9.75	39.3
34i	20.3	1.0	0.65	silt	7.7	7.2	9.5	35.4
35v	21.6	0.80	0.71	gritty silt	7.8	7.4	5.4	45.4
36i	22.5	0.34	0.35	clay	7.8	7.2	6.14	41.7
37i	23.4	0.12	0.30	clay	7.9	7.2	9.05	45.2
38i	24.4	0.37	0.10	clay	7.8	7.3	9.72	39.8
39i	25.4	0.09	1.65	silt	7.9	7.4	27.9	18.8
42v	28.4	0.64	0.50	clay			10.7	38.2
43v	29.4	0.45	0.10	silt			22.6	43.6
44i	30.4	0.46	0.30	clay			10.9	41.5
45v	30.1	0.32	0.77	clay			6.7	35.6
45B10i		0.32	1.18	clay			7.78	39.6
CONFL		0.20	0.30	clay			8.99	37.1
46i	32.5	0.22	0.30	clay			7.37	45.8

Annex I(iv). River Yare surficial sediment survey data: 1990 Annual Survey

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	% Methyl/ Total	Sediment type	pH	Sulphide (mg kg ⁻¹)	%TS	%VS
4i	-5.10	0.13	9.20	7.08	sand	7.9	141	29.0	17.8
4iv	-5.10	0.03	>0.70	2.33	sand	7.7	40.8	74.7	1.04
5ii	-5.00	0.21	12.49	5.95	sand	7.6	36.3	13.3	23.3
5v	-5.00	0.30	13.87	4.62	sand		93.2	14.7	22.2
7i	-3.35	0.24	25.31	10.55	clay	7.3	132	14.7	27.4
7iii	-3.35	0.57	4.06	0.71	clay	7.4	111.4	17.3	22.4
7v	-3.35	0.44	3.45	0.78	silty clay	7.2	81.8	17.6	22.6
8i	-2.15	0.56	2.65	0.47	silty clay	7.1	50	20.4	20.3
8iii	-2.15	0.19	2.41	1.27	silty clay	7.2	63.7	16.6	20.6
8v	-2.15	0.11	4.73	4.30	silty clay	6.9	77.3	21.3	20.8
9i	-1.41	1.16	5.67	0.49	silty clay	7	50	18.4	17.4
9v	-1.41	0.50	1.56	0.31	silty clay	7.1	-	37.0	8.78
10i	-0.66	0.75	5.62	0.75	sand	-	15.8	46.4	11.5
10iii	-0.66	4.28	1.07	0.02	sand	7.2	-	21.7	13.3
10v	-0.66	0.96	6.38	0.66	sand	7.0	61.3	28.3	14.2
11i	-0.22	1.58	2.19	0.14	ooze	7.4	24.9	36.9	22.4
11iii	-0.22	2.07	12.08	0.58	ooze	7.1	-	18.8	26.6
11v	-0.22	1.23	6.73	0.55	ooze	-	425	24.7	19.8
12i	0.44	0.23	0.71	0.31	sand/grit	7.4	-	58.6	5.1
12iii	0.44	0.69	-	-	sand/grit	-	-	33.1	10.3
12v	0.44	1.20	16.84	1.40	silt	7.1	61.4	17.3	30.0
13i	1.32	2.34	20.87	0.89	silty clay	7.0	88.7	16.9	21.6
13v	1.32	2.23	5.94	0.27	silty clay	7.4	86.4	20.2	24.5
14i	2.05	3.92	29.46	0.75	silty clay	7.1	111	17.6	18.6
14iii	2.05	4.68	24.73	0.53	silty clay	7.2	75.1	13.8	23.2
15i	2.78	0.92	2.60	0.28	grit/shells	7.1	70.5	40.8	6.7
15v	2.78	0.89	>0.70	0.08	grit/shells	7.4	15.9	73.9	3.05
16i	3.59	0.47	10.37	2.21	silty clay	7.0	148	17.6	25.9
16iii	3.59	3.55	15.02	0.42	silty clay	7.3	-	14.5	24.9
16v	3.59	2.35	11.60	0.49	silty clay	7.3	15.9	15.5	28.1
17i	4.42	2.16	5.48	0.25	silty clay	7.1	22.7	19.9	28.2
17iii	4.42	0.82	22.03	2.69	shells/twigs	7.2	-	16.1	25.5
18v	4.42	3.31	10.94	0.33	silty clay	7.3	34.1	17.6	21.9
18i	4.87	0.98	3.36	0.34	silt	7.8	20.4	29.6	14.1
18iii	4.87	0.96	>0.70	0.07	clayey silt	7.5	-	28.4	15.9
18v	4.87	2.64	8.01	0.30	ooze	7.6	54.6	15.4	24.8
19i	6.03	-	10.59	-	silty clay	7.3	63.7	16.4	18.4
19v	6.03	2.83	6.67	0.24	silt/shells	7.6	29.5	33.7	13.1
20i	6.62	-	-	-	silty clay	7.7	-	23.1	20.1
20v	6.62	3.39	3.56	0.11	grit	7.7	9	26.8	17.2
21i	7.31	2.78	2.85	0.10	grit	7.7	11.3	25.2	19.5
21v	7.31	1.59	5.17	0.33	clayey silt	7.4	-	20.0	18.8
22i	8.18	2.45	7.43	0.30	silty clay	7.3	-	20.7	19.7
22iii	8.18	-	-	-	silty clay	-	32.8	-	-
22v	8.18	1.34	3.56	0.27	grit	7.3	12.3	49.0	9.08
23i	8.36	0.31	>0.70	0.23	grit	7.5	15.8	42.2	9.39
23v	8.36	0.47	1.72	0.37	sand/shells	7.3	-	38.6	8.98

Annex I(iv).
1990 Annual Survey cont.

Site	Distance	T.Hg (mg kg ⁻¹)	MeHg (µg kg ⁻¹)	% Methyl/ Total	Sediment type	pH	Sulphate	%TS	%VS
24i	9.16	1.38	20.54	1.49	silt	7.2	20.5	26.0	19.5
24iii	9.16	1.27	16.04	1.26	ooze	7.5	23.7	24.5	21.4
25v	9.16	1.87	10.44	0.56	silt	7.3	-	20.9	15.3
25i	11.1	2.77	6.23	0.22	silt	7.7	30.9	17.1	24.7
25v	11.1	1.12	7.28	0.65	clayey silt	7.1	34.4	25.7	12.2
26i	12.5	0.50	3.36	0.67	silt	7.4	-	25.7	11.9
26iii	12.5	0.82	7.28	0.89	clayey silt	7.3	40.7	25.8	11.5
27i	13.5	0.62	10.00	1.61	silty clay	-	53.6	32.7	11.4
27v	13.5	0.85	22.21	2.61	silty clay	-	48.5	33.1	11.3
28i	14.5	0.85	3.18	0.37	silty clay	-	-	28.1	8.37
28v	14.5	0.86	1.36	0.16	silty clay	-	32.7	35.5	10.9
29i	15.4	0.50	12.04	2.41	silt/shells	-	37.4	36.5	10.3
29iii	15.4	0.52	8.82	1.70	silt/shells	7.9	18.5	43.7	11.1
29v	15.4	-	5.85	-	sand/ shells	7.5	12	45.0	8.23
30i	15.7	0.60	8.98	1.49	silty clay	-	20.8	34.3	11.3
30iii	15.7	0.58	12.58	2.17	grit/shells	7.3	24.9	63.9	9.21
30v	15.7	0.03	1.12	3.73	grit/shells	-	16.3	35.5	6.72
30.1ii	16.0	0.48	9.59	2.00	silt	7.4	-	55.0	7.68
30.1iv	16.0	0.22	5.54	2.52	clayey silt	7.9	34.9	33.0	7.61
30.2ii	16.3	0.36	3.22	0.89	silty clay	8	64	50.1	9.71
30.2iv	16.3	0.53	4.72	0.89	silty clay	7.8	32.8	41.7	9.62
30.3ii	16.6	0.13	7.72	5.94	silt	7.8	-	28.0	10.0
30.3iv	16.6	0.52	9.05	1.74	silty clay	7.6	72.4	27.1	8.38
31i	16.9	0.01	>0.70	7.00	clay	7.5	52.3	31.3	8.48
31v	16.9	0.56	9.16	1.64	clay	8	48.8	41.5	7.69
31.1ii	17.3	0.26	3.33	1.28	clay	7.8	-	25.7	12.2
31.1iv	17.3	0.48	3.39	0.71	clay	8	37.2	33.7	3.16
31.2ii	17.6	0.29	10.95	3.78	silt	-	27.1	43.5	17.9
32.2iv	17.6	0.54	18.75	3.47	silty clay	7.4	40.9	28.4	8.41
32i	18.3	0.38	4.45	1.17	silty clay	7.8	38.5	31.8	6.17
32iii	18.3	-	9.48	-	clay	7.5	-	39.4	-
32v	18.3	0.43	5.71	1.33	clay	7.4	50.6	37.8	5.24
33i	19.3	0.38	10.05	2.64	silty clay	7.6	28.3	26.2	8.06
33v	19.3	0.50	6.75	1.35	silty clay	7.3	-	27.7	7.62
34i	20.3	0.42	3.15	0.75	clayey silt	6.8	37.2	42.0	11.4
34v	20.3	0.19	4.18	2.20	clayey silt	7.6	19.4	27.8	11.9

Annex (vi). River Yare surficial sediment survey data: 1992 Annual Survey

Site	Distance (km)	T.Hg (mgkg ⁻¹)	TCu (mgkg ⁻¹)	MeHg (µgkg ⁻¹)	% Ratio Methyl/ Total Hg	Cl (mgkg ⁻¹)	Sed. pH	Temp (°C)	%TS	%VS
2	-15.5	0.03	24.25	nd		39.8			81.3	1.83
3	-11.6	nd	2.38	nd		34			76.3	1.3
4	-5.10	0.06	50.3	nd		37.3			10.2	30
5	-4.35	nd	7.14	nd		81.6			62	3.9
6	-4.15	1.95	50.91	nd		64.2	7.2	19.2	46.7	11.3
7i	-3.35	0.54	37.52	0.43	0.08	98.7	7.2	19.2	47.3	7.1
7iii	-3.35	0.88	84.1	nd		118.7	7.2	19.9	12.3	23.1
7v	-3.35	1.03	96.9	nd		66.6	6.9	19.4	18.8	28.4
8i	-2.15	1.16	100.2	nd		79.1	6.5	17.2	22.4	19.9
8iii	-2.15	1.38	102	nd		107.7	7.2	19.8	23.9	17.6
8v	-2.15	1.56	107	0.94	0.06	112.3	7.1	19.3	20.1	13
9v	-1.41	1.83	103.5	nd		109.7	6.9	20.4	26.7	15.7
10i	-0.65	1.64	94.7	2.51	0.15	134.8	7	20.2	28.5	8.8
10iii	-0.65	2.52	130.3	5.35	0.22	144.1	7	18.8	32.1	14.3
10v	-0.65	5.29	177.6	nq		109.2	7.1	20.3	38.3	16.9
11i	-0.22	1.99	104.35	1.46	0.074	263.9	7.4	21.2	53.1	7.8
11iii	-0.22	2.8	155.6	4.68	0.17	230.5	7.1	19	36.6	11.8
11v	-0.22	2.46	210.6	1.58	0.064	114.5	7.1	18.5	44.6	6.6
12iii	0.44	0.42	23.6	0.66	0.167	219.1			53.3	6.8
12v	0.44	1.79	14.1	0.28	0.016	199.3			65.5	11.7
13i	1.32	3.85	137.3	2.29	0.059	249.4	7.4	19.6	30.3	21
13iii	1.32	6.89	205.2	2.86	0.042	175	6.9	18.7	31.1	15.5
13v	1.32	0.66	34.1	1	0.15	242.2	7.2	21.5	52.5	4.6
14iii	2.05	1.59	161.4	1.71	0.11		7.4	21.1	34.3	7.3
14v	2.05	6.15	290.5	5.13	0.083	337.7	6.8	19	18.9	17.4
15i	2.78	0.34	39.1	nq		219.9	7.3	21.5	53.4	3.9
15iii	2.78	1.05	239.5	0.76	0.072	115.2	7.3	21.6	49.4	4.2
15v	2.78	4.79	218.4	3.61	0.075	168.5	7	19.2	26.1	15.5
16i	3.59	4.71	193.6	11.76	0.25	172.6	7.1	20.1	19.8	21.2
16iii	3.59	4.27	165.6	21.83	0.51	220.2	7	21.1	17.1	19.3
16v	3.59	3.76	165.6	8.45	0.22	170.4	7	20.4	21.3	20.1
17i	4.42	4.78	199.5	nd		400	6.7	20	20.7	12.6
17iii	4.42	4.36	168.5	19.55	0.45	311.1	7.2	20.9	16.9	15.9
17v	4.42	6.19	207.3	7.23	0.12		6.9	19.1	22.1	21.6
18i	4.8	5.96	195.4	2.83	0.047		6.9	19	19.9	22.8
18iii	4.8	2.69	90	1.86	0.069	400.5	7.2	21.4	24.9	13.2
18v	4.8	1.57	102	4.6	0.29	344.4	7.3	21.7	30.7	13.9
19i	6.03	2.53	101.8	11.2	0.43	374.4	7.1	19.7	18.2	23.3
19iii	6.03	2.51	71.1	1.92	0.076	367.4			30.5	19.5
19v	6.03	1.91	84.5	2.85	0.15		7.3	21.7	35.5	10.5
20i	6.62	2.81	112.2	2.53	0.09	638.8	7.1	20.8	21.6	37.8
20iii	6.62	3.04	96.7	8.97	0.3	399.8	7.2	21.6	21.2	17.7
20v	6.62	2.37	97.1	5.8	0.24	449.8	7.2	20.3	24.3	5.8
21i	7.31	2.32	95.6	3.62	0.16	888.8	6.9	20.8	21.6	18.7
21iii	7.31	1.81	41.9	nd		246.9	7.3	22.1	37	11
21v	7.31	2.43	67.5	3.14	0.13	162.1	7.3	21.9	29.5	16.3
22i	8.18	2.65	86.3	10	0.33	249.7	7.4	21.5	24.4	14.5
22iii	8.18	1.49	45.3	2.76	0.19	602.2	7.5	20.5	24	12.4
22v	8.18	2.67	84.4	4.68	0.18	349.6	7.4	21.8	22.7	36.4

Annex (vi).
1992 Annual Survey cont.

Site	Distance (km)	T.Hg (mgkg ⁻¹)	TCu (mgkg ⁻¹)	MeHg (µgkg ⁻¹)	% Ratio Methyl/ Total Hg	Cl (mgkg ⁻¹)	Sed. pH	Temp (°C)	%TS	%VS
23i	8.36	1.65	60.8	1.3	0.08		7.2	21.5	23.3	14.9
23iii	8.36	1.76	149.7	2.96	0.17		7.6	22.1	24.7	14.5
23v	8.36	1.74	72.2	3.33	0.19	311.6	7.2	20.6	24.0	15.0
24i	9.16	1.71	58.3	4.51	0.26	218.3	7.1		26.4	14.2
24iii	9.16	0.45	37	4.2	0.93	124		21.7	16.3	70.0
24v	9.16	2.01	46.1	5.37	0.27	177.6	7.2	21.4	26.6	9.8
25i	11.1	2.06	65.8	3.71	0.18	227	7.3	21.7	24.7	10.6
25iii	11.1	1.53	39.9	1.55	0.1		7.1	21.6	32.2	11.4
25v	11.1	0.42	30.1	4.18	1.0	139.4	7.3	21.8	48.4	8.7
26i	12.5	0.31	30.2	nq		364.4	7.2	21.7	33.7	10.3
26iii	12.5	1.54	52.9	1.57	0.10	256.2	7.5	21	27.5	16.8
26v	12.5	0.72	38.8	2.39	0.33	112.6	7.3	20	39.9	8.2
27i	13.5	1.03	50	1.22	0.12	573.1	7		34.9	7.3
27iii	13.5	0.76	35.8	nd				21.7	18.0	54
27v	13.5	0.54	30.5	nq		400	7.6	21.7	35.0	9.1
28i	14.5	1.27	48.2	2.19	0.17	354.6	7.1	19.6	30.5	12.8
28iii	14.5	0.77	25.4	1.19	0.15		7.4	20.5	44.2	8.3
28v	14.5	0.04	15.8	nd		220.8	7.1	21.1	48.0	8.0
29i	15.4	0.3	19.9	3.92	1.3	248.9	7	21.2	41.3	5.7
29iii	15.4	0.35	47.5	3.6	1.0		7.5	21.8	22.6	46.1
29v	15.4	1.22	35.5	nd		372.5	7.3	21.4	37.3	10.6
30i	15.7	0.32	19.7	0.75	0.23	323.6	7.4	20.8	44.5	8.3
30iii	15.7	0.74	27.9	0.58	0.08	200.6	7.4	21.6	41.3	8.5
30v	15.7	0.92	40.6	nd		150.2	7.2	21	25.4	6.0
30Ai	16.0	0.54	36.4	1.03	0.19	212.2	7	20.5	30.6	75
30Aii	16.0	0.35	17.8	1.25	0.36	212.5	7.4	21.2	50.2	3.5
30Av	16.0	0.69	42	nd		521.1	7.2	21.2	28.0	11.6
31i	16.9	0.3	18.5	2.57	0.86	399.4	7.4	20.6	51.0	5.7
31iii	16.9	0.21	19.4	nd		213.2	7.4	20.3	62.9	1.6
31v	16.9	0.61	14.4	nd		824.8	7.2	20.4	36.5	7.3
31Ai	17.5	0.13	15.2	1.48	1.1	548.2	7.2	21.2	38.0	6.6
31Aiii	17.5	0.04	13.4	nd		652.3	7.4	22.1	65.9	4.9
31Av	17.5	0.31	45.9	0.9	0.29	799.8	7.7	21.1	58.7	6.3
32i	18.3	0.57	29.8	3.13	0.55	1223.7	7.1	20.7	35.2	7.7
32iii	18.3	0.11	33.7	3.36	3.1				26.4	31.6
32v	18.3	0.17	36	1.73	1.0				46.8	7.8
33i	19.3	0.32	27.3	0.51	0.16	827.6	7.5	21.5	37.0	7.5
33iii	19.3	0.28	32.5	nd			7.2	20.8	17.0	62
33v	19.3	0.39	31.6	nd		826.2	7.1	20.5	32.7	9.3
34i	20.3	0.69	17.2	nd		1243.4	7.4	21.3	50.6	3.1
34iii	20.3	0.07	13	nd			7.5	21.2	15.7	67.3
34v	20.3	0.06	21.2	nd			7.5	22.1	25.1	48.2
35i	21.6	0.18	36.8	nd				21.5	31.0	46.4
35iii	21.6	0.14	31.7	nd		2000.9			18.7	49.4
35v	21.6	0.27	34.4	nd		6257.4	7.6	21.5	35.2	15.9
36i	22.5	0.39	35	nd		1240	6.9	21.5	36.4	10.4
36iii	22.5	0.46	19.1	nd			7.3	21.1	45.6	8.6
36v	22.5	0.11	16.4				7.3	21.2	26.8	19.4

Annex (vi).
1992 Annual Survey cont.

Site	Distance (km)	T.Hg (mgkg ⁻¹)	TCu (mgkg ⁻¹)	MeHg (µgkg ⁻¹)	% Ratio Methyl/ Total Hg	Cl (mgkg ⁻¹)	Sed. pH	Temp (°C)	%TS	%VS
37i	23.4	0.63	20.5	nd		1993	7.2	20.8	28.8	10.2
37iii	23.4	0.2	16.7	nd		3654	7.6	21.1	48.8	6.3
37v	23.4	0.18	19.1			2003	7.6	21.3	43.9	8.9
38i	24.4	0.53	25.7	nd		3179	6.6	19.9	33.5	1.9
38iii	24.4	0.18	17.9	nd		6188	7.1	21.4	48.6	5.7
38v	24.4	0.04	13.6				7	20.8	54.1	7.2
39i	25.4	0.04	10.1	nd		2777	7.2	20.6	48.0	7.6
39iii	25.4	nd	8.6	nd					22.7	47.6
39v	25.4	0.23	8.2						26.4	16.4
40i	26.4	0.93	31.9	nd		5939	7.2	20.5	27.4	22.6
40v	26.4	0.1	11.3	nd			7.3	19.7	58.8	5.6
41i	27.4	0.4	25.1	nd		2481	7.1	19.8	35.5	11.4
41v	27.4	0.38	22	nd		4468	7.2	19.8	36.2	10.8
42i	28.4	0.08	9.5	nd			7.6	19.9	57.2	3.7
42v	28.4	0.04	29.2	nd		2969	7.6	19.2	43.0	10.7
43i	29.4	0.52	18	nd		7445	7.4	19.1	49.0	45.8
43iii	29.4	0.07	12.1	nd					23.0	57.1
43v	29.4	0.34	19.9			8637	5.6	19.3	37.9	7.8
44i	30.4	0.25	27.2	nd		8636	6.7	19.3	36.4	11.3
44iii	30.4	0.16	12.6	nd			7.3	19.1	61.4	95.7
44v	30.4	0.14	14			7191	7	19.4	37.1	16.4
45i	31.4	0.18	17.6	nd		9698	7.5	19.9	31.2	15.9
45iii	31.4	nd	2.1	nd		9698			18.2	72.9
45v	31.4	0.28	21			14685	7.4	19.3	33.2	14.4
46	32.5	0.31	23.9	nd			7.2	19.3	41.1	5.7
47	33.5	0.6	15.5	nd		14683	7.2	18	51.9	5.0
48	34.5	0.5	16	nd		12048	7.5	18	51.1	8.8
49	36	0.28	40.6	nd		7462	7.5	18	71.5	1.2

Annex I(v). River Yare surficial sediment data: 1991 Annual survey

Site	Distance from STW Outfall (km)	THg (mgkg ⁻¹)	MeHg (µgkg ⁻¹)	% Ratio MeHg/THg	Chloride (mgkg ⁻¹)	Sediment Temp. °C	pH	% VS
4	-5.40	0.02	nd	0.00	24	18.5	7.6	1.7
5	-5.35	0.05	2.42	4.84	100	19.6	7.8	38.3
7i	-3.35	0.49	nd	0.00	82		7.5	35.7
7iii	-3.35	0.61	15.02	2.46	76	17.0	7.6	29.6
7v	-3.35	0.88	13.17	1.50	105		7.5	27.7
8i	-2.15	1.37	9.52	0.69	86		7.4	20.5
8iii	-2.15	0.71	10.41	1.47	72	15.0	7.4	21.9
8v	-2.15	1.07	6.52	0.61	74		7.4	26.5
9i	-1.40	1.81	6.00	0.33	71		7.4	20.1
9iii	-1.40	0.85	7.80	0.92	98	17.5	7.3	34.7
9v	-1.40	0.55	nd	0.00	91		7.4	19.5
10i	-0.65	1.31	10.90	0.83	176		7.4	30.8
10iii	-0.65	1.01	8.65	0.86	253	17.0	7.4	24.1
10v	-0.65	0.68	nd	0.00	62		7.5	6.4
11i	-0.20	1.35	10.56	0.78	259		7.6	21.6
11iii	-0.20	2.51	19.39	0.77	315	16.6	7.5	31.9
11v	-0.20	1.37	6.67	0.49	370		7.3	10.5
12i	0.45	0.36	3.54	0.98	248		7.1	3.6
12iii	0.45	0.62	nd	0.00	208	17.7	7.3	4.6
12v	0.45	1.82	16.41	0.90	157		7.4	18.0
13i	1.30	3.55	19.69	0.55	214		7.2	24.3
13iii	1.30	4.28	6.25	0.15	199	17.8	7.6	20.9
13v	1.30	2.73	22.22	0.81	248		7.2	27.7
14i	2.05	2.09	15.49	0.74	263		7.2	19.0
14iii	2.05	3.04	11.99	0.39	313	17.9	7.3	23.2
14v	2.05	0.77	6.23	0.81	628		6.9	9.4
15i	2.80	0.27	2.64	0.98	352		7.2	3.2
15iii	2.80	0.74	2.45	0.33	240	17.3	7.4	11.4
15v	2.80	1.55	3.96	0.26	209		7.4	-
16i	3.60	0.94	20.85	2.22	114		7.5	15.3
16iii	3.60	3.61	11.19	0.31	598	17.9	7.3	25.5
16v	3.60	3.25	20.08	0.62	223		7.5	37.2
17i	4.40	4.59	8.01	0.17	406		7.3	21.6
17iii	4.40	2.60	15.05	0.58	457	16.9	7.4	20.4
17v	4.40	2.40	16.15	0.67	96		7.1	23.9
18i	4.80	1.58	5.61	0.36	391		7.4	18.7
18iii	4.80	3.65	2.61	0.07	482	16.2	7.3	16.5
18v	4.80	4.42	13.11	0.30	173		7.4	16.5
19i	6.00	1.55	8.72	0.56	221		7.4	15.9
19iii	6.00	3.27	8.93	0.27	451	18.2	7.4	34.7
19v	6.00	1.78	15.49	0.87	464		7.3	30.6
20i	6.60	0.65	12.04	1.85	117		7.6	19.3
20iii	6.60	2.72	nd	0.00	261	17.1	7.4	21.4
20v	6.60	1.69	9.59	0.57	749		7.3	20.7
21i	7.30	2.37	8.35	0.35	656		7.4	42.7
21iii	7.30	0.83	nd	0.00	831	16.8	7.3	22.8
21v	7.30	1.70	10.76	0.63	466		7.3	18.8
22i	8.20	2.11	9.37	0.44	638		7.5	20.9
22iii	8.20	1.85	nd	0.00	316	17.5	7.5	16.3
22v	8.20	2.75	11.80	0.43	279		7.5	6.4
23i	8.35	0.46	3.54	0.77	167	17.8	7.8	17.7
23v	8.35	1.94	2.40	0.12	243		7.5	11.0
24i	9.15	0.46	6.72	1.46	246	17.2	7.6	34.2
24v	9.15	3.80	9.85	0.26	622		7.3	17.7

Annex I(v).
1991 Annual survey cont.

Site	Distance from STW Outfall (km)	THg (mgkg ⁻¹)	MeHg (µgkg ⁻¹)	% Ratio MeHg/THg	Chloride (mgkg ⁻¹)	Sediment Temp °C	pH	% VS
25i	11.10	2.64	4.43	0.17	386	17.5	7.4	19.1
25v	11.10	2.83	4.40	0.16	330		7.4	13.2
26i	12.50	0.99	4.45	0.45	704	17.7	7.5	17.7
26v	12.50	1.35	9.13	0.68	659		7.5	54.9
27i	13.50	0.96	5.37	0.56	607	16.8	7.5	30.9
27v	13.50	1.04	16.63	1.60	398		7.5	9.7
28i	14.50	0.51	2.26	0.44	412	18.8	7.7	12.0
28v	14.50	0.68	2.71	0.40	640		7.3	10.1
29i	15.40	0.39	4.96	1.27	435		7.3	12.0
29iii	15.40	0.64	8.50	1.33	299	18.1	7.3	13.1
29v	15.40	0.39	12.21	3.13	102		7.8	9.8
30i	15.70	0.45	12.40	2.76	1048		7.4	6.5
30iii	15.70	0.29	6.15	2.12	430	17.8	7.6	13.8
30v	15.70	0.49	4.08	0.83	524		7.2	7.1
31i	16.90	0.50	2.32	0.46	308		7.5	1.9
31iii	16.90	0.12	2.77	2.31	178	17.4	8.0	6.0
31v	16.90	0.29	nd	0.00	173		7.8	11.7
32i	18.30	0.36	2.91	0.81	473		7.4	7.3
32iii	18.30	0.25	5.13	2.05	309	18.2	7.5	9.1
32v	18.30	0.18	2.49	1.38	631		7.6	7.7
33i	19.30	0.33	2.38	0.72	442	18.0	7.4	7.9
33v	19.30	0.45	1.65	0.37	622		7.5	14.9
34i	20.30	0.14	1.86	1.33	862	17.8	7.3	43.7
34v	20.30	0.29	5.18	1.79	1074		7.4	3.8

Positions on transect facing downstream.
 iii. Centre of channel.
 i. Midway between iii and RH bank.
 v. Midway between iii and LH bank.

Annex II. Broad sediment core data (1990). Supplementary data for Section 5.3.1.

i) ROCKLAND BROAD SEDIMENT CORE DATA

CORE	DEPTH (cm)	T. Mercury (mg kg ⁻¹)	MethylMercury (µg kg ⁻¹)	% TS	% VS	S ₂ ⁻ (mg l ⁻¹)	SO ₄ ²⁻ (mg kg ⁻¹)
CORE 1	0-2	8.02	28.8	16.1	20.8	0.17	51.3
	2-4		28.3	16.1	20.8	0.17	
	4-6	7.88	28.0	16.1	20.8	0.17	
	6-8	7.72	33.4	15.5	19.9		
	8-10	13.6	19.1	17.9	17.8	0.08	36.6
	10-12	12.5	5.67	23.2	17.8		39.3
	12-14	11.0	6.00	23.2	19.1	0.04	57.7
	14-16	12.6	4.36	24.7	17.4		81.3
	16-18	12.9	4.43	24.2	19.8	0.14	79.7
	18-20	14.5	4.24	23.0	19.9		63.2
	20-22	16.9	3.91	25.3	18.9	0.27	43.7
	22-24	13.4	4.02	25.4	18.9		45.0
	24-26	16.5	2.96	24.3	19.0	0.25	36.6
	26-28	18.9	1.74	26.1	17.7		68.6
	28-30			27.3	16.6	0.14	54.1
	30-32	27.4					
	32-34	27.4					
	34-36	24.9					
	36-38	24.9					
	38-40	24.9					
CORE 2	0-2	22.9	30.3	12.6	9.0		
	2-4	15.6	16.1	15.5	5.0		
	4-6	21.4	11.5	18.3	16.7	1.66	17.5
	6-8	21.5	14.7	19.6	12.0		
	8-10	36.9	9.83	20.8	26.0	6.81	70.5
	10-12	28.5	6.23	20.0	38.0		
	12-14	30.8	9.42	19.1	43.0	0.95	10.0
	14-16	23.3		20.6	20.0		
	16-18	22.7		22.2	18.0	3.06	2.5
	18-20	20.3		22.8	38.0		1.5
	20-22	19.9		23.3	12.0	0.59	6.0
	22-24	18.2		26.1	12.0		
	24-26	15.4		28.9	17.0		
	26-28	21.3		28.9	43.0		
	28-30	21.8		28.9	19.0		
CORE 3	0-4	8.79	5.80	36.9	7.5	0.03	nd
	4-8	10.4	5.93	40.8	8.0	0.10	nd
	8-12	7.19	2.67	41.3	7.5	0.12	nd
	12-16	7.23	0.62	43.2	8.0	0.12	nd
	16-20	8.32	0.00	43.2	7.9	0.66	nd
	20-24	7.38	0.00	44.6	8.0	0.15	nd
	24-28	8.15	1.27	41.4	15.7	0.10	nd
	28-32	5.60	0.73	44.5	8.1	7.69	nd
CORE 4	0-4	12.8	14.8	15.3	12.4	0.32	
	4-8	17.0	20.4	16.6		0.21	
	8-12	14.8	23.7	17.2	67.4	0.18	
	12-16	23.0	23.1	16.2		0.70	
	16-20	25.5	25.6	17.6	93.9	0.65	
	20-24	29.8	24.2	16.2	337.3	1.55	
	24-28	23.5	24.4	16.5		0.50	
	28-32	15.9	24.7	15.7	565.7	5.20	
	32-36	13.9	24.0	16.6		5.00	
	36-40	7.50	25.6	17.2	701.2	5.80	
	40-44	4.50	26.9	17.4		7.00	
	44-48	4.60	25.1	18.1	743.2	6.20	
	48-52	3.50	26.1	16.8		4.30	
	52-56	3.80	26.7	17.0	78.2	2.70	

Annex II cont...

CORE	DEPTH (cm)	T. Mercury (mg kg ⁻¹)	MethylMercury (µg kg ⁻¹)	% TS	% VS	S ₂ ⁻ (mg l ⁻¹)	SO ₄ ²⁻ (mg kg ⁻¹)
CORE 5	56-60	3.80	26.4	17.4	373.9	1.20	
	60-64	3.60	27.2	17.0			
	0-4	5.76	13.4	4.9	25.1	118.1	0.78
	4-8	6.18	14.3	6.7	27.5	161.9	0.46
	8-12	7.76	17.9	7.7	24.1	155.0	0.21
	12-16	10.6	16.8	8.6	21.6	364.6	0.07
	16-20	14.0	13.3	8.1	25.0	464.8	0.10
	20-24	15.0	11.3	6.8	22.7	433.5	0.04
	24-28	12.8	10.4	7.1	24.5	489.9	0.06
	28-32	9.61	8.61	7.4	24.6	348.4	0.08
	32-36	6.28					
	36-40	2.51					
	40-44	2.57					
	44-48	3.03					
	48-52	2.90				109.4	0.03
	52-56	1.31					
	56-60	2.41				71.8	0.01
	60-64	2.76					
	64-68	3.09					
	68-72	2.66				191.8	0.03
	72-76	3.14					
	76-80	2.67				167.5	0.04

ii) SURFICIAL SEDIMENT SAMPLES THROUGHOUT THE THREE BROADS

Broad System	T. Mercury (mg kg ⁻¹)	MethylMercury (µg kg ⁻¹)	% TS	% VS	S ₂ ⁻ (mg l ⁻¹)	SO ₄ ²⁻ (mg kg ⁻¹)
Rockland						
RS1	31.1		15.8	17.2	248	0.18
RS2	19.6		20.2	16.8	296	0.03
RS3	13.3		21.4	15.9	342	0.07
RS4	21.2		19.7	16.7	980	0.03
RS5	26.8		18.3	19.5	874	0.64
RS6	9.80	23.48	20.1	17.9	102	7.26
RS7	5.98	18.53	17.1	17.9	88.2	0.29
RS8	7.35	16.97	18.5	16.1	300	0.64
Surlingham						
SS1	13.9					0.29
SS2	14.8					0.23
SS3	24.0					0.35
Wheatfen						
WS1	3.98	16.66	19.5	17.2	12.1	0.02
WS2	7.38	15.69	19.5	16.9	10.6	0.01
WS3	7.65	16.47	19.5	17.4	15.3	0.07
WS4	9.56	21.93	18.3	16.2	47.6	0.02
WS5	8.65	21.38	17.4	20.0	29.1	0.01

iii) WHEATFEN BROAD SEDIMENT CORE 1

DEPTH (cm)	T. Mercury (mg kg ⁻¹)	MethylMercury (µg kg ⁻¹)	% TS	% VS	S ₂ ⁻ (mg l ⁻¹)	SO ₄ ²⁻ (mg kg ⁻¹)
0-4	4.40	14.0	14.1	14.7	0.05	5.2
4-8	5.00	12.7	21.8	17.4	0.05	2.9
8-12	4.80	9.74	23.3	15.2	0.05	23.6
12-16	8.40	8.07	26.2	14.7	0.06	26.0
16-20	8.00	3.45	25.2	15.3	0.07	32.9
20-24	11.2	4.57	24.5	15.8	0.11	337.0
24-28	4.80	0.15	22.7	15.4	0.27	240.2
28-32	3.10	4.29	22.4	15.3	1.20	573.5
32-36	1.50		22.0	16.6	5.80	894.1
36-40	1.40		22.1	15.1	1.50	771.6
40-44	1.70		22.7	15.4	0.85	743.9
44-48	1.00		23.8	16.0	0.40	524.8
48-52	1.00		25.0	15.2	0.10	392.4
52-56	0.80		25.9	14.9		
56-60	0.90		26.9	14.5	0.05	
60-64	0.50		27.2	12.7		
64-68	0.00		27.3	12.6	0.05	
68-72	0.10		28.7	9.9		

iv) SURLINGHAM (BARGATE WATER) BROAD

CORE	DEPTH (cm)	T. Mercury (mg kg ⁻¹)	Methyl Mercury (µg kg ⁻¹)	% TS	% VS	S ₂ ⁻ (mg l ⁻¹)	SO ₄ ²⁻ (mg kg ⁻¹)
CORE 1	0.2	22.1	28.6	12.5	24.3	0.86	2.88
	2.4	22.9	23.4	12.3	21.4	0.04	3.84
	4.6	27.2	21.5	14.7	23.4	0.06	3.52
	6-8	25.3	3.21	17.8		0.11	
	8-10	27.6	5.51	18.0		0.02	3.36
	10-12	24.8	0.00	19.7		0.01	3.36
	12-14	24.1	3.25	21.3			4.00
	14-16	23.4	1.70	24.6			4.16
	16-18	27.7	0.00	24.2			5.28
CORE 2	0-2	12.4	8.91	15.8	33.8	0.58	9.44
	2-4	15.0	23.5	19.1	31.3	0.11	16.1
	4-6	10.1	9.40	29.1	22.2	0.12	11.1
	6-8	21.0	11.7	20.2	30.5	48.9	21.6
	8-10	15.6	3.24	27.5	28.0		5.20
	10-12	22.7		23.0	16.4		6.40
	12-14	22.4		22.8	21.1		
	14-16	21.8		15.7	50.8		2.08
	16-18			23.5	26.2		1.12

(Metal concentrations are in mg kg⁻¹)

Core	Depth(cm)	%TS	%VS	Temp C	Redox (mv)	pH	T. Hg	T. Cu	Core	Depth cm	%TS	%VS	Temp C	Redox (mv)	pH	T. Hg	T. Cu	
Core 1	2.5	17.7	16.0	20.1	-246	7.0	1.6	96.2	Core 6	2.5	16.5	17.7	16.8	-247	7.1	4.0	119.3	
	5.0	21.1	16.2	19.9	-245	6.9	2.6	111.0		5.0	17.3	15.5	17.3	-250	6.9	2.6	135.7	
	7.5	25.6	17.4	19.7	-296	6.9	2.2	97.2		7.5	17.8	18.4	17.6	-256	6.9	2.6	135.1	
	10.0	31.3	17.4	19.5	-307	6.5	2.1	101.9		10.0	16.7	17.4	16.1	-237	6.7	3.0	142.2	
	12.5	27.3	16.1	19.4	-305	7.0	1.6	95.1		12.5								
	15.0	23.8	22.0	18.5	-269	6.9	1.7	117.0		15.0	16.3	19.0	16.6	-277	6.9	3.4	170.6	
	17.5	23.9	16.7	16.5	-272	6.9	1.4	114.1		17.5								
	20.0	25.2	17.7	18.3	-245	6.9	1.6	110.9		20.0	19.0	19.3	17.5	-259	6.9	2.0	169.1	
	25.0	24.7	20.2	17.8	-244	6.7	1.1	92.0		25.0	20.2	16.5	17.3	-237	6.9	2.6	146.7	
	30.0	31.4	23.2	17.4	-264	6.6	1.9	97.6		30.0	20.3	12.4	17.2	-245	6.6	2.7	137.0	
	35.0	34.5	16.6	17.1	-236	6.6	1.5	95.1		35.0	19.7	20.3	17.2	-227	6.6	3.0	150.9	
	40.0	29.3	15.6	16.5	-235	6.6	1.9	120.3		40.0	24.1	17.8	17.2	-236	6.6	2.7	139.4	
	45.0	31.1	13.5	16.3	-225	6.7	1.4	92.1		45.0	20.8	15.2	17.2	-250	6.6	6.3	187.4	
	50.0	32.0	15.6	16.0	-220	6.6	1.6	99.9		50.0	19.9	19.3	17.6	-294	6.6	4.4	199.8	
	55.0	34.9	14.4	15.6	-241	6.7	2.2	96.4		55.0	20.7	19.2	17.3	-230	6.7	4.6	206.6	
	60.0	40.5	12.6	15.6	-210	6.7	1.5	94.2		60.0	22.3	19.9	17.1	-232	6.7	4.6	229.1	
	65.0	44.3	6.9	15.6	-260	6.6	1.5	96.6		65.0	22.6	19.9	17.2	-234	6.7	5.3	242.0	
Core 2	2.5	21.3	20.0	19.6	-206	6.9	2.3	193.1	70.0	21.5	19.9	16.7	-235	6.6	6.6	246.7		
	5.0	21.4	20.5	19.9	-241	6.6	2.6	214.5	75.0	22.0	20.4	16.3	-239	6.7	5.6	273.2		
	7.5	22.2	23.2	19.9	-253	6.6	2.4	163.4	80.0	26.4	17.4	15.5	-253	6.7	9.0	335.0		
	10.0	22.4	21.9	19.8	-239	6.8	2.2	203.3	85.0	30.6	16.0	15.1	-255	6.5	12.0	166.6		
	12.5	20.7	21.7	19.1	-223	6.6	6.4	219.9	90.0	32.1	16.6	14.9	-250	6.6	9.7	191.3		
	15.0	10.6	23.9	18.9	-246	7.0	2.6	232.3	95.0	28.6	15.9	14.5	-246	6.6	14.9	266.3		
	17.5	21.7	22.6	19.9	-244	6.7	2.5	210.6	100.0	26.6	14.1	14.5	-236	6.7	17.6	260.5		
	20.0	23.0	23.6	19.6	-244	6.7	2.3	207.9	105.0	30.4	17.6	14.3	-233	6.6	16.2	202.2		
	25.0	26.2	16.9	18.0	-234	6.6	2.4	187.6	Core 7	2.5	39.5	16.4	19.5	-195	7.0	2.5	100.1	
	30.0	22.4	25.0	17.0	-229	6.7	2.7	207.7		5.0	32.0	17.3	19.2	-254	6.9	3.6	133.3	
	35.0	24.6	29.2	16.5	-233	6.6	2.1	170.3		7.5	39.9	14.6	18.6	-213	6.6	2.1	79.5	
	40.0	24.0	21.9	16.1	-205	6.6	1.6	150.6		10.0	41.7	12.7	16.6	-224	6.6	2.6	111.6	
	45.0	31.6	20.3	16.0	-217	6.7	2.5	176.3		12.5	44.3	14.7	16.6	-216	6.9	4.3	93.0	
	50.0	33.3	17.9	14.2	-207	6.7	6.9	169.7		15.0	42.6	15.1	16.3	-214	6.7	4.1	99.0	
	Core 3	2.5	14.5	22.7	20.6	-247	7.0	4.2		155.3	17.5	49.7	12.7	17.9	-252	6.7	3.3	83.6
		5.0	21.9	22.4	20.2	-260	7.0	10.0		163.6	20.0	40.2	13.4	17.5	-295	6.6	2.3	66.4
		7.5	24.9	21.0	18.6	-266	7.0	16.7		172.6	25.0	35.5	16.5	17.1	-207	6.7	3.9	114.0
10.0		22.9	22.0	18.6	-276	7.0	7.6	179.9		30.0	42.5	13.2	16.4	-207	6.7	7.9	116.0	
12.5		22.9	19.9	17.9	-314	7.1	10.6	276.8		35.0	35.3	12.7	16.1	-200	6.6	3.4	66.4	
15.0		23.0	22.9	17.5	-290	7.0	4.6	306.5		40.0	49.7	9.9	15.4	-197	6.7	4.3	70.8	
17.5		24.0	24.2	17.0	-293	6.6	3.3	276.6		45.0	31.9	16.7	15.0	-160	6.7	16.3	172.1	
20.0		24.9	17.5	16.6	-242	6.6	2.4	227.3		50.0	30.9	16.5	14.5	-173	6.6	16.6	206.3	
25.0		30.0	16.0	15.7	-193	6.5	0.5	46.2		55.0	29.9	19.9	14.3	-164	6.7	16.6	211.0	
30.0		27.3	16.6	15.0	-199	6.6	0.5	52.0		60.0	23.4	32.2	14.0	-169	6.7	2.5	116.9	
35.0		26.2	16.4	15.4	-197	7.0	0.5	56.2		65.0	27.5	27.2	14.1	-166	6.6	2.4	69.6	
40.0		27.3	16.1	14.7	-193	7.0	0.4	45.6	Core 8	2.5	17.3	19.5	20.2	-234	5.6	1.6	56.1	
45.0		30.2	14.3	14.6	-166	6.5	0.4	46.4		5.0	19.3	10.6	20.2	-236	7.0	1.6	63.2	
50.0		40.7	6.0	14.6	-161	6.6	0.2	22.9		7.5	25.5	5.7	20.1	-230	7.0	1.4	52.5	
Core 4		2.5	23.0	23.0	21.0	-170	6.9	3.6		220.3	10.0	27.5	10.4	19.9	-219	7.0	1.2	50.0
		5.0	19.4	22.3	20.3	-160	6.9	3.2		197.1	12.5	27.4	11.6	10.5	-216	7.1	1.5	67.5
		7.5	15.6	18.6	20.1	-194	6.7	3.9		225.4	15.0	27.9	9.3	19.1	-269	7.0	1.6	60.2
	10.0	16.4	17.6	20.3	-200	6.6	3.4	206.1		17.5	26.2	16.1	16.8	-216	7.1	2.2	73.1	
	12.5	16.9	20.2	20.3	-217	6.6	3.9	214.1		20.0	23.9	24.0	16.6	-231	7.1	2.3	59.7	
	15.0	16.0	16.3	19.9	-235	6.9	3.7	230.1		25.0	20.0	34.0	17.9	-220	7.0	2.4	67.0	
	17.5	17.0	22.2	19.7	-226	6.6	3.5	235.0		30.0	29.6	19.6	17.5	-219	7.0	0.2	23.1	
	20.0	17.7	24.6	19.4	-239	6.6	3.4	241.5		35.0	35.6	15.7	17.5	-216	7.1	0.1	19.2	
	25.0	16.9	22.6	19.1	-231	6.7	3.4	239.1		Core 9	2.5	24.6	10.4	19.8	-155	6.9	1.6	57.1
	30.0	20.2	22.4	17.6	-240	6.6	3.2	227.9			5.0	27.0	9.4	19.1	-195	6.7	1.6	55.0
	35.0	21.1	21.3	16.4	-210	6.6	3.0	243.2			7.5	26.7	10.7	19.1	-206	6.7	1.9	60.2
	40.0	20.9	21.3	16.3	-207	6.7	3.6	254.1			10.0	27.0	13.5	18.7	-183	6.6	3.1	66.7
	45.0	23.2	20.6	16.6	-298	6.6	3.7	226.3			12.5	26.8	10.6	16.4	-166	6.7	2.7	73.1
	50.0	24.0	22.2	14.9	-206	6.7	4.2	210.7			15.0	32.6	12.9	16.3	-166	6.6	2.2	60.1
	55.0	25.6	21.6	14.9	-209	6.7	4.4	226.2	17.5		33.0	12.9	16.1	-164	6.9	2.2	55.5	
	60.0	25.1	22.5	14.9	-220	6.6	4.1	211.3	20.0		33.6	6.6	17.6	-197	6.6	2.1	67.6	
	65.0	24.3	21.3	14.3	-209	6.9	6.4	305.7	25.0		32.6	12.9	17.3	-193	6.7	2.5	64.0	
70.0	23.5	21.6	13.6	-222	6.6	10.0	676.1	30.0	32.4		6.4	16.4	-163	6.7	2.5	65.0		
Core 5	2.5	20.1	19.3	20.1	-99	7.0	7.2	170.1	35.0		32.6	14.7	16.1	-176	6.6	2.2	61.1	
	5.0	23.2	20.2	19.2	-156	6.6	4.4	262.5	40.0		32.9	14.1	15.6	-216	6.6	1.6	71.2	
	7.5	22.3	22.2	19.0	-176	6.6	2.6	236.9	45.0		34.7	16.7	15.6	-206	6.6	2.4	76.1	
	10.0	23.0	22.4	16.6	-212	7.0	2.2	352.9	50.0		32.3	14.6	15.6	-195	6.6	2.6	92.0	
	12.5	22.6	17.3	19.2	-231	7.0	2.5	347.6	55.0		29.7	16.8	15.1	-209	6.6	3.2	113.1	
	15.0	26.0	20.9	17.6	-234	6.6	2.6	329.0	Core 10		2.5	26.7	9.4	19.1	-210	7.2	0.9	44.0
	17.5	26.0	20.9	17.6	-235	6.7	2.6	293.0			5.0	29.2	7.9	16.6	-240	6.6	0.9	49.7
	20.0	25.3	20.5	17.4	-234	7.0	2.4	356.6		7.5	30.4	6.4	16.6	-216	7.0	0.9	56.6	
	25.0	26.6	14.7	17.0	-239	6.6	2.2	321.1		10.0	32.0	7.3	16.6	-205	7.9	0.6	49.1	
	30.0	26.3	21.4	16.6	-235	6.6	2.4	300.4		12.5	31.0	6.2	16.0	-202	6.9	1.3	56.2	
	35.0	27.2	17.7	16.0	-247	6.9	2.6	325.6		15.0	33.3	6.6	16.2	-200	6.7	0.6	47.1	
	40.0	28.7	26.2	15.9	-231	6.6	2.9	347.6		17.5	35.2	9.7	16.2	-204	7.0	0.6	51.0	

Annex IV. In-situ seasonal monitoring of Rockland Broad (1991-1992), physico-chemical parameters.

Rockland Broad Coring Site 1

Survey	Depth	T.Hg	MeHg	%MeHg/T.Hg	%TS	%VS	S ⁻	SO ₄	Cl ⁻	pH	Redox	Temp.
Spring 91	0-4	4.00	3.34	0.08	14.2	17.8	173		88	7.2		13.5
	4-8	3.77	9.63	0.26	14.1	18.2	183		120	7.3		12.2
	8-12	4.58	3.28	0.07	14.8	18.3	349		175	7.4		11.1
	12-16	4.92	2.38	0.05	15.8	17.3	371		178	7.5		10.8
	16-20	4.84	2.07	0.04	17.3	12.8	342		183	7.4		10.2
	20-24	7.00	1.89	0.02	17.2	16.3	415		238	7.4		9.9
	24-28	5.70	1.62	0.03	17.2	15.6	371		288	7.4		8.8
	28-32	5.52	1.16	0.02	17.3	15.7	457		288	7.5		8.3
	32-36	2.02	0.00	0.00	17.4	12.5	133		185	7.5		9.0
	36-40	1.42	0.00	0.00	17.5	13.6	108		180	7.4		8.7
	40-44	0.80	0.00	0.00	23.8	10.8	140		120	7.3		8.5
	44-48	0.93	0.00	0.00	24.8	9.4	54		118	7.4		8.2
	48-52	1.25	0.00	0.00	29.3	8.7	51		120	7.4		7.8
	52-56	1.11	0.00	0.00	25.0	4.8	58		51	7.4		7.8
	56-72	1.58	0.00	0.00	28.5	8.0	48		28	7.5		7.7
	72-80	0.28	0.00	0.00	28.4	4.8	53		28	7.5		7.8
	80-88	0.22	0.00	0.00	27.3	8.8	48		28	7.5		7.5
Summer 91	0-4	4.81	17.40	0.36	11.0	27.3	1380		218	7.5		21.2
	4-8	2.26	13.00	0.58	15.8	10.8	1080		205	7.5		18.0
	8-12	1.81	4.21	0.23	15.2	18.8	1020		193	7.8		17.8
	12-16	2.10	2.87	0.14	14.9	23.6	1130		145	7.8		17.4
	16-20	0.07	0.00	0.00	19.4	18.4	950		145	7.5		18.5
	20-24	0.97	0.08	0.08	20.4	17.0	1230		84	7.4		18.2
	24-28	1.09	0.00	0.00	22.3	15.8	1550		85	7.5		15.9
	28-32	1.03	0.00	0.00	27.3	17.8	840		108	7.8		15.8
	32-36	0.98	0.00	0.00	28.8	14.4	810		34	7.8		15.1
	36-40	1.09	0.00	0.00	28.1	14.0	380		52	7.4		14.7
	40-44	0.88	0.00	0.00	28.2	13.0	280		38	7.5		14.4
	44-48	0.48	0.00	0.00	23.8	17.5	320		37	7.5		14.0
	48-52	0.38	0.00	0.00	24.0	13.3	290		88	7.8		13.8
	52-56	0.09	0.00	0.00	22.3	13.8	220		60	7.7		13.3
	56-72	0.07	0.00	0.00	22.1	13.2	280		28	7.7		12.8
	72-80	0.04	0.00	0.00	22.1	11.5	210		23	7.8		12.8
Autumn 91	0-4	2.58	0.00	0.00	10.1	25.3	500	1314	887	7.1	-278	8.2
	4-8	2.37	0.00	0.00	10.1	32.0	418	1108	804	7.1	-308	8.4
	8-12	2.88	0.00	0.00	10.8	23.8	372	1155	844	7.1	-259	7.0
	12-16	1.48	0.00	0.00	13.4	28.5	340	1110	888	7.2	-312	7.5
	16-20	0.93	0.08	0.00	18.8	12.3	172	854	418	7.2	-321	7.8
	20-24	1.00	0.00	0.00	18.2	20.3	178	845	387	7.2	-324	8.4
	24-28	1.38	0.00	0.00	19.9	18.8	137	551	357	7.2	-328	8.8
	28-32	1.09	0.00	0.00	24.0	15.0	85	438	288	7.2	-315	8.8
	32-36	1.12	0.00	0.00	22.8	14.8	84	405	270	7.2	-326	9.1
	36-40	1.58	0.00	0.00	27.3	12.4	82	317	218	7.1	-348	8.2
	40-44	1.18	0.00	0.00	29.0	13.4	48	318	201	7.2	-340	8.2
	44-48	1.22	0.00	0.00	25.7	8.3	75	283	188	7.1	-331	8.3
	48-52	1.24	0.00	0.00	25.4	18.0	88	302	178	7.2	-315	8.4
	52-56	1.47	0.08	0.00	23.4	15.5	73	328	178	7.2	-297	9.5
	56-72	0.58	0.00	0.00	25.3	10.7	73	280	111	7.2	-304	8.8
	72-80	0.75	0.00	0.00	22.7	13.1	78	307	107	7.2	-289	8.5
Winter 92	0-4	5.18	7.32	0.14	15.3	27.0	887	4888	483	8.8	-910	10.7
	4-8	5.88	3.51	0.00	17.5	25.0	1002	4578	423	8.8	-913	10.2
	8-12	5.84	3.40	0.02	17.5	24.8	528	2411	381	7.0	-328	9.1
	12-16	7.34	0.00	0.00	15.0	28.5	491	8855	548	7.2	-321	8.8
	16-20	2.34	0.00	0.00	15.2	34.3	383	5888	533	7.2	-311	9.1
	20-24	1.74	0.00	0.00	18.8	24.8	327	4304	448	7.3	-282	8.8
	24-28	1.45	0.00	0.00	14.3	23.1	238	3117	514	7.4	-282	8.8
	28-32	0.78	0.00	0.00	15.0	27.2	224	3895	420	7.4	-270	8.8
	32-36	0.58	0.00	0.00	18.8	25.4	80	2842	300	7.3	-301	8.7
	36-40	0.84	0.00	0.00	28.8	14.4	41	2088	217	7.3	-317	8.8
	40-48	0.82	0.00	0.00	31.4	14.8	38	1823	110	7.3	-318	8.8
	48-58	1.45	0.00	0.00	27.3	14.8	41	1828	110	7.3	-300	8.5
	56-64	1.25	0.00	0.00	28.7	19.8	35	2288	109	7.4	-330	8.9
	64-72	0.55	0.00	0.00	28.5	15.4	43	2088	88	7.4	-335	8.1
	72-80	0.43	0.00	0.00	28.7	18.1	43	2720	88	7.5	-312	8.1

Rockland Broad Coring Site 2

Survey	Depth	T. Hg	MeHg	%MeHg/T.	%TS	%VS	S-	SO4	Cl-	pH	Redox	Temp	
Spring	0-4	8.32	11.34	0.18	14.0	15.4	133		110	7.2		13.0	
	4-8	5.57	11.70	0.21	15.1	22.1	142		110	7.2		12.8	
	8-12	11.85	23.74	0.20	15.3	27.7	183		178	7.2		12.5	
	12-16	14.40	5.11	0.04	15.0	20.0	171		220	7.4		12.3	
	16-20	15.31	3.28	0.02	18.0	25.8	184		245	7.5		12.0	
	20-24	21.58	4.78	0.02	18.0	28.1	180		212	7.4		11.8	
	24-28	10.70	4.30	0.04	15.8	18.3	188		188	7.4		11.8	
	28-32	8.30	1.38	0.02	17.0	20.0	145		188	7.4		11.3	
	32-36	8.35	0.88	0.01	18.8	28.8	127		178	7.5		11.1	
	36-40	2.38	0.00	0.00	17.4	14.8	81		175	7.5		10.7	
	40-44	2.22	0.00	0.00	18.8	18.1	48		141	7.4		10.2	
	44-48	1.37	0.00	0.00	18.8	15.1	42		117	7.3		10.0	
	48-58	1.14	0.00	0.00	19.8	25.3	58		108	7.4		9.8	
	58-64	1.34	0.00	0.00	15.2	22.1	58		110	7.3		9.7	
	64-72	0.48	0.00	0.00	17.5	18.2	42		83	7.4		9.8	
	72-80	0.42	0.00	0.00	19.5	12.7	37		87	7.4		9.8	
	80-88	0.34	0.00	0.00	17.0	10.7	43		84	7.4		9.4	
Summer	0-4	7.08	12.48	0.18	17.2	23.8	480		214	7.8		21.3	
	4-8	8.75	15.58	0.23	17.5	18.4	430		233	7.8		21.0	
	8-12	4.88	14.35	0.29	18.0	18.0	540		284	7.8		20.8	
	12-16	5.35	14.12	0.26	18.3	17.8	870		238	7.8		20.5	
	16-20	5.78	11.38	0.20	18.3	18.8	712		203	7.4		20.3	
	20-24	7.88	11.32	0.14	18.8	25.8	950		187	7.5		20.0	
	24-28	10.23	10.15	0.18	18.8	27.2	1100		188	7.5		19.7	
	28-32	8.88	5.31	0.08	18.8	27.1	1340		225	7.5		19.4	
	32-36	8.48	0.00	0.00	18.5	23.1	1810		238	7.5		19.2	
	36-40	8.58	0.00	0.00	17.4	26.0	730		188	7.8		18.4	
	40-44	3.21	0.00	0.00	18.0	28.8	530		234	7.5		17.9	
	44-48	1.83	0.00	0.00	18.8	23.3	380		285	7.8		17.8	
	48-58	1.78	0.00	0.00	19.0	23.8	410		288	7.5		17.5	
	58-64	1.84	0.00	0.00	18.8	21.8	370		257	7.5		17.1	
	64-72	0.90	0.00	0.00	18.0	20.3	370		120	7.5		16.8	
	Autumn	0-4	8.84	11.73	0.15	11.2	17.3	188	1534	817	7.3	-285	5.8
		4-8	8.75	12.78	0.15	10.7	14.8	188	1850	1014	7.2	-320	5.8
8-12		10.71	11.87	0.11	10.8	11.0	183	1331	1184	7.2	-385	5.8	
12-16		11.34	7.40	0.07	13.1	12.0	183	1878	1218	7.2	-345	8.0	
16-20		13.82	0.00	0.00	12.1	15.7	158	1501	981	7.2	-387	8.2	
20-24		14.80	0.00	0.00	13.4	18.8	135	1331	715	7.2	-358	8.3	
24-20		14.38	0.00	0.00	15.8	25.0	122	1048	524	7.2	-378	8.5	
28-32		10.78	0.00	0.00	18.1	18.5	104	802	503	7.2	-387	8.8	
32-36		10.41	0.00	0.00	13.7	12.8	132	458	861	7.1	-303	7.2	
36-40		8.23	0.00	0.00	19.3	11.6	84	882	642	7.2	-253	7.4	
40-44		5.80	0.00	0.00	13.5	10.1	67	809	548	7.2	-147	7.7	
44-48		2.43	0.00	0.00	14.4	11.3	72	522	500	7.2	-143	7.7	
48-58		1.85	0.00	0.00	15.0	13.4	98	482	368	7.2	-228	8.1	
58-64		1.80	0.00	0.00	14.8	8.7	58	490	350	7.2	-207	8.9	
64-72		1.37	0.00	0.00	13.8	8.8	89	878	408	7.3	-211	9.5	
72-80		1.12	0.00	0.00	14.8	10.0	48	383	243	7.3	-215	9.7	
Winter		0-4	4.58	15.88	0.33	17.0	28.8	182	288	532	7.1	-213	10.8
	4-8	5.14	8.44	0.18	17.8	25.5	282	1880	440	7.3	-215	10.2	
	8-12	4.87	10.48	0.21	18.4	28.5	322	3854	378	7.4	-253	8.9	
	12-18	5.82	13.48	0.23	17.7	28.7	350	3305	382	7.4	-280	8.4	
	18-20	8.28	15.71	0.25	18.8	28.4	323	4788	353	7.4	-273	8.5	
	20-24	8.28	8.81	0.11	20.8	25.1	358	4847	338	7.5	-288	8.1	
	24-28	7.85	7.88	0.10	20.5	24.7	360	5556	409	7.4	-300	8.0	
	28-32	8.83	4.10	0.04	20.3	18.4	375	5084	338	7.5	-305	7.8	
	32-38	11.37	0.00	0.00	19.8	21.8	438	7827	434	7.5	-313	7.4	
	38-40	9.77	0.00	0.00	21.1	18.4	284	3820	322	7.4	-310	7.8	
	40-48	4.27	0.00	0.00	21.3	21.2	210	3785	384	7.3	-232	8.4	
	48-58	1.50	0.00	0.00	22.7	14.8	178	2870	211	7.4	-220	8.5	
	58-84	1.22	0.00	0.00	21.0	18.8	157	3254	252	7.4	-224	8.8	
	84-72	0.85	0.00	0.00	23.1	17.3	107	2847	232	7.4	-210	8.6	

Annex IV. Physico-chemical parameters cont...

Rockland Broad Coring Site 3

Survey	Depth	T.Hg	M.Hg	%MeHg/T.Hg	%TS	%VS	S-	SO4	Cl-	pH	Redox	Temp
Spring	0-4	5.91	15.78	0.27	13.3	8.4	159		150	7.20		12.8
	4-8	10.28	21.09	0.20	15.5	8.7	238		145	7.30		11.9
	8-12	13.54	3.66	0.03	18.5	8.8	309		175	7.50		11.5
	12-16	6.38	3.28	0.04	20.0	8.2	232		159	7.60		11.0
	16-20	8.20	2.08	0.03	21.8	7.8	200		150	7.80		10.7
	20-24	2.89	1.18	0.04	24.8	8.8	112		151	7.50		10.6
	24-28	2.37	0.63	0.04	23.3	9.3	88		142	7.40		10.5
	28-32	2.31	0.00	0.00	28.8	5.0	88		130	7.50		10.3
	32-36	1.20	0.00	0.00	27.7	6.4	88		133	7.40		10.3
	36-40	1.40	0.00	0.00	26.5	6.2	88		124	7.50		10.0
	40-44	1.27	0.00	0.00	27.7	6.2	53		127	7.50		9.8
	44-48	0.89	0.00	0.00	30.3	8.3	48		120	7.50		9.7
	48-52	0.64	0.00	0.00	31.6	8.2	38		131	7.40		9.7
	52-56	0.53	0.00	0.00	32.7	7.8	41		188	7.50		9.8
Summer	0-4	4.04	7.87	0.20	18.4	30.1	180		218	7.40		18.3
	4-8	4.08	7.08	0.17	17.7	17.1	210		186	7.40		17.4
	8-12	5.52	8.22	0.11	18.7	17.3	250		178	7.50		16.8
	12-16	5.78	3.83	0.07	21.8	18.4	210		125	7.50		16.5
	16-20	4.07	3.87	0.09	21.9	15.7	150		144	7.50		16.3
	20-24	4.25	1.33	0.03	22.8	16.4	140		100	7.60		16.1
	24-28	1.44	0.00	0.00	23.4	14.5	130		82	7.80		16.0
	28-32	1.34	0.00	0.00	23.3	12.8	110		110	7.40		15.9
	32-36	0.93	0.00	0.00	25.2	11.1	100		117	7.50		15.7
	36-40	0.98	0.00	0.00	26.8	11.2	80		128	7.50		15.0
	40-44	0.83	0.00	0.00	27.1	7.2	70		83	7.80		14.7
	44-48	0.66	0.00	0.00	31.0	7.8	70		95	7.50		14.7
	48-52	0.22	0.00	0.00	30.6	8.8	70		98	7.80		14.6
	52-56	0.29	0.00	0.00	30.8	9.0	80		121	7.50		14.5
	56-64	0.12	0.00	0.00	28.0	10.7	70		134	7.50		14.5
Autumn	0-4	4.70	0.04	0.13	15.5	12.9	154	1084	381	7.38	-203	5.8
	4-8	5.80	8.26	0.18	15.0	18.1	221	1788	488	7.30	-248	5.3
	8-12	7.28	4.22	0.08	15.4	25.3	182	1681	803	7.28	-258	5.6
	12-16	10.82	2.73	0.09	16.4	25.7	219	1589	828	7.30	-258	5.8
	16-20	8.25	0.00	0.00	18.9	18.2	185	1198	854	7.31	-338	6.2
	20-24	5.58	0.00	0.00	21.2	14.8	207	1138	817	7.28	-308	6.3
	24-28	3.38	0.00	0.00	22.6	15.7	124	740	1000	7.27	-288	6.7
	28-32	1.83	0.00	0.00	21.4	20.6	148	508	888	7.28	-232	7.0
	32-36	1.18	0.00	0.00	23.8	18.5	83	318	750	7.28	-288	7.4
	36-40	1.18	0.00	0.00	28.2	13.4	102	318	887	7.28	-280	8.0
	40-44	1.85	0.00	0.00	25.5	13.4	102	324	848	7.28	-310	8.4
	44-48	0.84	0.00	0.00	28.7	11.7	88	283	541	7.25	-310	8.5
	48-52	0.87	0.00	0.00	28.8	11.1	58	285	555	7.27	-315	8.8
	52-56	0.34	0.00	0.00	31.7	11.5	51	228	488	7.24	-317	8.8
	56-64	0.21	0.00	0.00	31.3	10.4	35	233	384	7.25	-309	8.8
Winter	0-4	3.95	8.73	0.17	18.2	19.7	112	281	453	7.58	-140	10.0
	4-8	3.88	7.28	0.20	20.4	18.1	147	1885	385	7.48	-170	8.3
	8-12	5.88	8.50	0.14	18.4	19.4	305	3813	284	7.42	-218	7.8
	12-16	8.42	8.59	0.07	19.8	20.5	385	8883	254	7.38	-234	7.8
	16-20	4.73	1.00	0.02	20.9	17.5	222	7885	288	7.38	-225	7.7
	20-24	4.28	0.00	0.00	25.7	14.2	144	3843	178	7.38	-239	7.8
	24-28	2.18	0.00	0.00	24.5	14.8	135	4282	185	7.58	-233	7.8
	28-32	0.88	0.00	0.00	28.3	14.7	85	3518	208	7.82	-230	7.5
	32-36	0.88	0.00	0.00	27.0	12.0	88	3185	224	7.80	-222	7.3
	36-40	1.02	0.00	0.00	28.0	12.5	74	2570	155	7.82	-240	7.4
	40-48	0.71	0.00	0.00	32.4	11.3	100	1880	92	7.84	-245	7.5
	48-52	0.73	0.00	0.00	31.0	11.0	75	2283	113	7.83	-240	7.4
	52-56	0.25	0.00	0.00	31.1	11.0	81	2830	125	7.80	-218	7.5
	56-64	0.19	0.00	0.00	33.7	10.8	60	2885	88	7.81	-220	7.7

Rockland Broad Coring Site 4

Survey	Depth	T.Hg	M.Hg	%MeHg/T.Hg	%TS	%VS	S-	Cl-	pH	Temp
Spring	0-4	1.77	8.54	0.37	17.8	18.7	52	121	7.0	13.8
	4-8	2.10	9.22	0.44	18.2	23.5	132	125	7.0	13.0
	8-12	2.95	3.24	0.11	18.4	15.8	120	200	7.1	12.0
	12-16	2.77	2.20	0.08	21.4	12.4	113	234	7.1	11.7
	16-20	4.24	1.91	0.05	24.5	13.9	87	262	7.1	11.4
	20-24	2.83	1.75	0.06	31.3	11.1	74	295	7.2	12.2
	24-28	2.54	2.18	0.09	31.8	11.1	63	310	7.1	11.2
	28-32	2.85	1.72	0.06	33.0	10.5	44	350	7.1	11.0
	32-36	1.82	1.24	0.07	35.0	8.8	31	248	7.2	10.8
	36-40	1.01	0.91	0.09	38.3	9.0	18	188	7.3	10.7
	40-44	1.07	0.00	0.00	39.7	8.6	0	145	7.2	10.6

Annex IV. Physico-chemical parameters cont...

Rockland Broad Coring Site 5

Survey	Depth	Thg	MeHg	MeHg/Thg	%S	%S	S	SCl	Cl-	pH	Redox	Temp
Spring	0-4	3.84	13.70	0.38	18.0	20.4	187		108	7.40		13.8
	4-8	4.81	14.53	0.32	18.2	18.3	280		90	7.30		13.2
	8-12	4.88	14.31	0.31	18.2	18.1	274		213	7.30		13.4
	12-18	8.50	14.01	0.22	18.0	21.2	304		217	7.30		11.8
	18-20	8.81	10.28	0.12	18.3	22.4	352		215	7.40		11.8
	20-24	8.65	11.51	0.12	17.2	24.3	357		238	7.40		11.5
	24-28	8.31	7.08	0.08	18.7	27.8	380		250	7.40		11.3
	28-32	10.48	7.48	0.07	20.3	23.3	348		301	7.40		11.2
	32-38	18.55	8.28	0.05	20.4	18.2	418		381	7.50		11.1
	38-40	24.37	8.78	0.04	18.8	21.0	353		425	7.50		10.8
Summer	40-44	13.07	2.72	0.02	18.4	28.6	353		445	7.40		10.8
	44-48	4.54	1.08	0.02	20.5	21.8	382		478	7.30		10.5
	48-58	3.25	0.00	0.00	21.4	18.3	338		437	7.40		10.3
	58-64	2.73	0.00	0.00	22.5	14.8	288		409	7.40		10.1
	64-72	1.92	0.00	0.00	21.8	18.4	254		328	7.30		9.8
	72-80	0.64	0.00	0.00	20.3	14.0	78		310	7.40		9.8
Autumn	0-4	3.21	12.40	0.38	17.1	24.1	110		211	7.40		21.5
	4-8	4.80	17.92	0.37	18.7	10.3	110		188	7.50		18.5
	8-12	8.93	12.05	0.17	18.2	17.0	870		188	7.80		18.8
	12-18	20.84	5.38	0.08	18.8	18.1	310		182	7.80		18.2
	18-20	24.41	4.88	0.02	18.8	20.4	310		182	7.40		18.2
	20-24	19.45	2.01	0.01	19.5	18.4	150		184	7.40		17.8
	24-28	12.37	1.48	0.01	20.8	18.8	110		205	7.40		17.2
	28-32	2.80	0.00	0.00	21.0	21.8	210		183	7.40		17.2
	32-38	2.12	0.00	0.00	22.3	22.1	170		275	7.50		17.0
	38-40	3.51	0.00	0.00	20.4	28.8	170		250	7.80		16.7
Winter	40-44	1.41	0.00	0.00	9.8	35.0	80		182	7.50		16.5
	44-48	0.43	0.00	0.00	8.0	85.4	80		185	7.40		16.4
	48-58	0.80	0.00	0.00	8.4	84.8	280		152	7.50		16.4
	58-64	0.75	0.00	0.00	7.4	88.8	280		170	7.40		16.3

Rockland Broad Coring Site 6

Survey	Depth	Thg	MeHg	MeHg/Thg	%S	%S	S	SCl	Cl-	pH	Redox	Temp
Spring	0-4	5.31	10.42	0.20	8.8	10.2	108.2		118	8.8		12.8
	4-8	8.48	8.07	0.10	7.1	13.5	237.8		145	7.1		12.3
	8-12	13.91	5.51	0.04	7.3	13.1	300.0		175	7.3		12.1
	12-18	7.05	4.32	0.06	7.5	14.1	123.8		305	7.5		11.9
	18-20	6.30	2.14	0.03	7.3	14.8	88.8		400	7.3		11.8
	20-24	1.82	2.07	0.11	7.5	13.2	86.4		475	7.5		11.5
	24-28	1.84	2.05	0.11	7.4	10.4	118.8		473	7.4		11.3
	28-32	1.76	1.41	0.08	7.4	13.4	111.8		437	7.4		10.0
	32-38	1.84	1.08	0.05	7.3	12.1	118.4		465	7.3		10.8
	38-40	1.51	0.81	0.05	7.2	11.8	80.4		445	7.2		10.8
Summer	40-44	2.01	0.61	0.03	7.3	14.8	110.4		410	7.3		10.4
	44-48	1.70	0.47	0.03	7.2	18.9	115.2		375	7.2		10.2
	48-58	0.78	0.00	0.00	7.3	12.5	94.8		305	7.3		9.8
	58-64	1.18	0.00	0.00	7.4	10.1	128.8		218	7.4		9.8
	64-72	1.30	0.00	0.00	7.3	8.8	103.2		175	7.3		9.3
	72-80	1.18	0.00	0.00	7.4	7.5	121.2		180	7.4		9.2
Autumn	0-4	8.85	11.08	0.16	20.4	18.7	120.0		325	7.2		20.0
	4-8	8.08	7.97	0.10	22.2	18.1	110.0		338	7.3		18.2
	8-12	7.38	7.34	0.10	22.3	18.0	150.0		313	7.4		19.0
	12-18	4.87	4.28	0.08	24.3	18.2	140.0		363	7.4		18.8
	18-20	4.38	3.48	0.08	24.4	18.3	130.0		408	7.4		18.4
	20-24	2.90	1.58	0.05	24.2	18.8	130.0		555	7.3		18.2
	24-28	1.73	1.12	0.06	24.1	13.2	130.0		563	7.3		18.0
	28-32	2.70	0.97	0.04	25.2	14.8	140.0		650	7.3		17.8
	32-38	2.81	0.80	0.03	25.5	14.8	120.0		830	7.2		17.8
	38-40	2.58	0.00	0.00	28.7	14.9	130.0		575	7.3		17.2
Winter	40-44	1.89	0.00	0.00	28.8	12.4	130.0		544	7.2		17.1
	44-48	2.42	0.00	0.00	28.7	14.1	140.0		825	7.3		16.9
	48-58	1.84	0.00	0.00	27.8	13.4	160.0		538	7.3		16.5
	58-64	1.11	0.00	0.00	32.0	10.0	140.0		412	7.3		16.0
	64-72	2.88	0.00	0.00	31.8	8.8	140.0		200	7.3		15.9
	72-80	2.77	0.00	0.00	30.2	5.3	140.0		228	7.3		15.6

Units: Depth = cm, Total mercury (THg) = mg kg⁻¹, Methylmercury (MeHg) = µg kg⁻¹, Sulphide (S²⁻) and Chloride (Cl⁻) = mg kg⁻¹, Redox = mV, Temperature (Temp) = °C

Annex IV(ii). Insitu seasonal monitoring data for Rockland Broad (1991-1992).

Bacterial parameters.
Spring Survey

Coring Site 1						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	1023800	452400	44.2	3.34	4.00	0.08
2-4	954500	390900	40.9	3.34	4.00	0.08
4-6	665200	704300	105.9	9.93	3.77	0.26
6-8	569600	621700	109.1	9.93	3.77	0.26
8-10	316700	133300	42.1	3.20	4.56	0.07
10-12	150000	50000	33.3	3.20	4.56	0.07

Coring Site 2						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	493500	209700	42.9	11.34	6.32	0.18
2-4	581800	236400	40.6	11.34	6.32	0.18
4-6	424200	381800	90.0	11.70	5.57	0.21
6-8	352800	286100	81.1	11.70	5.57	0.21
8-10	266700	147200	55.2	23.74	11.95	0.20

Coring Site 3						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	612500	178100	29.1	15.76	5.91	0.27
2-4	617600	105900	17.1	15.76	5.91	0.27
4-6	476500	432400	90.7	21.09	10.29	0.20
6-8	413500	454100	109.8	21.09	10.29	0.20
8-10	267500	115000	43.0	3.88	13.54	0.03
10-12	202600	64100	31.6	3.88	13.54	0.03
12-14	104900	7300	7.0	3.26	8.39	0.04

Coring Site 5						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	700000	96400	13.8	13.70	3.64	0.38
2-4	680600	235500	34.6	13.70	3.64	0.38
4-6	554500	521200	94.0	14.53	4.61	0.32
6-8	500000	397300	79.5	14.53	4.61	0.32
8-10	322500	77500	24.0	14.31	4.68	0.31
10-12	264100	30800	11.7	14.31	4.68	0.31

Coring Site 6						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	977400	419400	42.9	13.24	4.34	0.31
2-4	778800	384800	49.4	14.76	3.97	0.37
4-6	339400	366700	108.0	14.79	6.21	0.24
6-8	205400	218900	106.6	10.30	8.23	0.13
8-10	430800	194900	45.2	5.19	11.87	0.04

Annex IV(ii). Insitu seasonal monitoring, bacterial parameters cont...

Summer survey.

Coring Site 1						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	523300	500000	95.5	17.47	4.44	0.39
2-4	397100	379400	95.5	6.07	2.85	0.21
4-6	342400	184800	54.0	6.13	3.36	0.18
6-8	284400	250000	87.9	3.61	1.90	0.19
Coring Site 2						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	503000	151500	30.1	10.84	6.32	0.17
2-4	347200	219400	63.2	10.82	4.43	0.24
4-6	194400	150000	77.2	9.75	6.76	0.14
6-8	126300	144700	114.6	9.14	3.96	0.23
8-10	121000	76300	63.1	4.26	8.80	0.05
10-12	105400	5400	5.1	7.25	8.05	0.09
12-14	42900	1100	2.6	2.38	9.90	0.02
Coring Site 3						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	524200	136400	26.0	3.90	2.60	0.15
2-4	485700	322900	66.5	3.09	2.93	0.11
4-6	340500	243200	71.4	3.19	6.82	0.05
6-8	241900	111600	46.1	3.05	3.10	0.10
8-10	212500	70000	32.9	3.58	8.71	0.04
10-12	302200	8900	2.9	3.31	2.84	0.11
Coring Site 5						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	740700	440700	59.5	29.74	3.22	0.92
2-4	373700	194700	52.1	24.56	4.94	0.50
4-6	279500	282100	100.9	18.40	3.61	0.51
6-8	153500	144200	93.9	11.15	7.50	0.15
8-10	209800	100000	47.7	14.02	9.70	0.15
Coring Site 6						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	532300	206500	38.8	28.30	6.94	0.41
2-4	270000	130000	48.1	19.95	3.90	0.51
4-6	219500	173200	78.9	21.96	18.10	0.12
6-8	89100	34800	29.1	17.15	6.19	0.28
8-10	115600	17800	15.4	21.88	10.82	0.20
10-12	38300	4300	11.2	8.78	9.14	0.10
12-14	22400	400	1.8	nd	9.86	-

Annex IV(ii). Insitu seasonal monitoring, bacterial parameters cont...

Autumn survey.

Coring Site 1

Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	535600	65900	12.3	nd	3.25	-
2-4	184300	34500	18.7	1.41	4.18	0.03
4-6	124100	35600	28.7	nd	4.06	-
6-8	74900	23500	31.4	nd	3.64	-
8-10	48800	11900	24.4	nd	3.50	-
10-12	4400	1100	25.0	nd	3.67	-

Coring Site 2

Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	762100	181300	23.8	2.38	7.74	0.03
2-4	521200	375700	72.1	3.69	7.69	0.05
4-6	355000	213000	60.0	4.02	8.48	0.05
6-8	299500	130000	43.4	4.18	8.93	0.05

Coring Site 3

Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	667800	283800	42.5	2.79	6.30	0.04
2-4	714900	439000	61.4	5.48	6.86	0.08
4-6	716600	559700	78.1	6.60	7.68	0.09
6-8	564900	389800	69.0	5.74	7.83	0.07
8-10	441900	276800	62.6	5.06	8.22	0.06
10-12	278800	88100	31.6	3.14	10.04	0.03

Coring Site 5

Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	337700	50300	14.9	2.05	2.59	0.08
2-4	247500	59100	23.9	4.38	2.59	0.17
4-6	233200	58800	23.9	6.13	3.03	0.20
6-8	188700	96400	51.1	5.33	3.89	0.14
8-10	144000	86400	60.0	6.04	7.10	0.09
10-12	57700	36300	62.9	4.37	8.21	0.05
12-14	45000	25400	56.4	3.72	2.08	0.18

Coring Site 6

Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	%Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	496200	156300	31.5	3.29	5.56	0.06
2-4	400300	114500	28.6	4.96	6.73	0.07
4-6	354300	150300	42.4	8.24	7.18	0.11
6-8	225300	71900	31.9	9.37	7.31	0.13
8-10	100000	30000	30.0	9.15	7.49	0.12

Annex IV(ii). Insitu seasonal monitoring, bacterial parameters cont...

Winter survey.

Coring Site 1						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	% Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	545800	135400	24.8	2.06	6.64	0.03
2-4	448100	97200	21.7	6.24	6.28	0.10
4-6	355000	87900	24.8	6.49	6.63	0.10
6-8	483000	69600	14.4	5.72	6.37	0.09
8-10	312800	34300	11.0	4.18	6.91	0.06
10-12	176700	29900	16.9	2.16	10.68	0.02
12-14	43600	11000	25.2	1.29	9.82	0.01
14-16	63500	17900	28.2	nd	9.97	-
Coring Site 2						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	% Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	459400	108500	23.6	7.28	4.12	0.18
2-4	189300	179600	94.9	12.36	5.07	0.24
4-6	157800	50200	31.8	14.50	6.28	0.24
6-8	128600	32300	25.1	9.31	3.74	0.25
8-10	85700	9900	11.6	5.42	2.45	0.22
Coring Site 3						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	% Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	409700	83500	20.4	3.94	1.06	0.37
2-4	378800	106300	28.1	5.28	2.46	0.21
4-6	278600	123400	44.3	7.36	4.37	0.17
6-8	148800	96300	64.7	7.60	5.14	0.15
Coring Site 5						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	% Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	499600	142100	28.4	2.77	1.46	0.19
2-4	401500	165000	41.1	3.74	2.37	0.16
4-6	82500	60200	73.0	5.06	2.72	0.19
6-8	93700	65400	69.8	7.22	3.57	0.20
8-10	64200	44500	69.3	7.34	5.13	0.14
10-12	77300	25600	33.1	6.45	4.27	0.15
Coring Site 6						
Depth (cm)	Total Aerobic Bacteria (CFU g ⁻¹)	Hg Resistant Bacteria (CFU g ⁻¹)	% Hg Resistance	MeHg (µg kg ⁻¹)	T.Hg (mg kg ⁻¹)	% ratio Me/T.Hg
0-2	243600	60200	24.7	8.35	4.87	0.17
2-4	256700	90400	35.2	8.42	3.95	0.21
4-6	207100	73700	35.6	12.62	8.73	0.14
6-8	169500	95400	56.3	13.98	7.06	0.20
8-10	137500	105800	76.9	13.07	4.63	0.28
10-12	129800	85800	66.1	10.44	5.86	0.18
12-14	151600	63200	41.7	9.07	5.24	0.17
14-16	144300	59200	41.0	4.20	5.15	0.08
16-18	115600	60600	52.4	5.74	5.28	0.11

Annex V. Tank experiment data. Mercury mobility within buried sediment layers.
Supplementary data for Section 5.2.2.

(i) Total Mercury Concentrations (mg kg⁻¹)

Day	Tank 1			Tank 2			Tank 3			
	Rockland			Cantley			Ormsby		Cantley	
	0-5 cm	25-29	50-54	0-5 cm	26-30	53-57	0-5	20-24	24-28	44-48
1	4.36	4.64	4.27	0.32	0.21	0.18	0.30	0.27	0.52	0.21
2	4.38	3.61	4.41	0.21	0.44	0.48	0.24	0.19	0.56	0.19
3	4.32	4.21	4.09	0.24	0.36	0.26	0.21	0.18	0.34	0.20
5	4.73	4.19	4.19	0.24	0.19	0.19	0.27	0.09	0.31	0.27
8	4.12	3.68	3.88	0.18	0.20	0.16	0.07	0.11	0.34	0.23
13	4.27	3.97	5.16	0.24	0.21	0.28	0.11	0.13	0.19	0.18
22	4.16	4.47	4.33	0.31	0.20	0.19	0.03	0.09	0.19	0.19
33	4.26	3.45	5.27	0.46	0.33	0.22	0.12	0.11	0.40	0.41
64	3.67	4.16	5.16	0.43	0.32	0.28	0.20	0.19	0.52	0.62
95	4.72	3.98	4.68	0.28	0.25	0.30	0.15	0.20	0.32	0.30
125	4.12	3.95	4.30	0.27	0.27	0.25	0.10	0.14	0.41	0.25
186	4.18	3.89	4.07	0.30	0.21	0.23	0.25	0.11	0.44	0.27
247	4.08	4.06	4.10	0.39	0.18	0.32	0.11	0.15	0.22	0.18
308	3.75	3.41	3.81	0.25	0.13	0.23	0.20	0.16	0.34	0.27
365	3.51	4.29	4.44	0.32	0.28	0.27	0.19	0.18	0.35	0.29

Day	Tank 4				Tank 5				Tank 6			
	Ormsby		Rockland		Rockland		Ormsby		Cantley		Ormsby	
	0-5	22-26	26-30	48-52	0-5	24-28	28-32	52-56	0-5	22-26	26-30	49-53
1									0.18	0.21	0.12	0.17
2	0.21	0.21	3.26	3.38	3.83	5.14	0.23	0.28	0.23	0.32	0.18	0.24
3	0.16	0.27	3.16	3.88	3.23	5.06	0.23	0.14	0.20	0.27	0.10	0.11
5	0.07	0.10	3.31	3.98	3.26	3.87	0.37	0.25	0.33	0.25	0.08	0.16
8	0.09	0.16	3.34	4.48	3.09	4.63	0.27	0.14	0.28	0.18	0.08	0.14
13	0.21	0.29	3.37	4.12	4.83	4.38	0.28	0.08	0.38	0.37	0.21	0.26
22	0.15	0.33	3.19	4.36	3.78	4.39	0.18	0.12	0.34	0.29	0.17	0.30
33	0.24	0.11	3.85	4.07	3.45	4.21	0.17	0.20	0.30	0.33	0.22	0.29
64	0.21	0.32	3.18	3.39	4.76	3.79	0.38	0.26	0.29	0.48	0.18	0.13
95	0.18	0.20	3.40	4.02	4.22	4.38	0.21	0.21	0.30	0.29	0.21	0.19
125	0.17	0.15	3.81	3.84	4.66	3.98	0.30	0.19	0.29	0.40	0.24	0.20
186	0.24	0.07	2.61	3.00	4.89	4.29	0.25	0.14	0.17	0.41	0.29	0.08
247	0.29	0.12	3.71	4.27	5.01	4.32	0.32	0.15	0.35	0.34	0.28	0.18
308	0.39	0.19	3.19	3.62	4.28	4.20	0.24	0.15	0.37	0.20	0.15	0.14
365	0.22	0.19	3.80	4.15	4.31	4.39	0.22	0.21	0.22	0.36	0.19	0.14

(ii) Methylmercury concentrations (µg kg⁻¹).

(Detectable concentrations were confined to the Rockland Broad sediment).

Day	Tank 1			Tank 4		Tank 5			
	Rockland			Rockland		Rockland		Ormsby	
	0-5 cm	25-29	50-54	26-30	48-52	0-5	24-28	28-32	52-56
1	6.40	6.68	6.96						
2	7.44	8.87	7.07	4.41	4.62	6.46	2.88	nd	nd
3	4.05	4.06	3.28	5.16	4.90	3.48	3.06	nd	nd
5	5.30	4.81	3.14	3.03	3.78	4.39	4.53	1.29	nd
8	4.11	4.97	3.01	4.13	5.18	5.22	5.13	0.91	nd
13	3.38	3.24	2.86	4.37	4.37	6.30	6.22	nd	nd
22	3.32	4.16	4.43	6.39	5.39	6.69	2.25	nd	0.33
33	5.88	5.68	5.58	7.34	6.02	8.44	3.01	1.64	nd
64	5.33	6.66	4.31	5.24	6.14	7.03	2.43	nd	nd
95	5.12	5.38	4.20	4.90	5.23	7.38	3.08	nd	nd
125	5.40	4.90	3.89	4.03	4.92	6.88	2.52	nd	nd
186	5.13	3.53	4.28	4.09	2.69	7.11	4.53	nd	nd
247	8.34	3.69	3.51	4.65	3.36	7.57	3.18	nd	nd
308	8.52	3.36	2.97	3.21	1.70	8.96	3.40	nd	nd
365	8.02	3.43	2.09	2.21	2.25	7.81	2.99	nd	nd

nd - not detectable.

Annex V. Tank experiment data, cont..

(iii) Methylmercury concentrations following a 10°C change in sediment temperature.

Tank	Depth (cm)	Total Mercury (mg kg ⁻¹)			Methylmercury (µg kg ⁻¹)			% Increase Methylmercury	
		12°C	22°C	22°C	12°C	22°C	22°C	Temp. increase 12-22 °C	
		Day 1	Day 4	Day 10	Day 1	Day 4	Day 10	(day 1-4)	(day 1-10)
1	0-5	3.74	3.59	3.69	7.14	7.92	9.39	+11	+31
	25-29	4.01	3.78	4.34	3.02	3.48	3.97	+15	+31
	50-54	4.29	4.20	4.04	2.41	2.28	2.10	-6	-12
4	0-5	0.28	0.15	0.17	nd	nd	nd	-	-
	22-26	0.30	0.21	0.19	nd	nd	nd	-	-
	26-30	3.61	3.29	3.40	2.39	2.68	2.50	+12	+5
	48-52	4.07	3.69	3.85	3.01	2.44	2.26	-20	-25
5	0-5	4.59	4.17	4.17	7.54	7.59	8.84	-	+17
	24-28	4.18	3.84	3.96	3.12	3.48	3.51	+11	+12
	28-32	0.31	0.24	0.25	nd	nd	nd	-	-
	52-56	0.21	0.18	0.27	nd	nd	nd	-	-

nd - not detectable.

(iv) Sediment temperature, redox and pH variations during temperature ramping of experimental tanks.

Tank	Depth (cm)	Day 1			Day 4			Day 10		
		Redox	pH	Temp	Redox	pH	Temp	Redox	pH	Temp
1	0-5	-8	7.09	11.7	-107	7.28	23.0	-88	7.13	21.9
	25-29	-260	6.89	11.8	-148	7.02	23.4	-183	6.99	21.8
	50-54	-230	6.95	11.9	-193	6.99	23.1	-201	7.03	21.7
4	0-5	-284	7.12	11.9	-208	7.31	22.8	-205	7.17	21.7
	22-26	-304	7.08	12.5	-297	7.30	22.6	-310	7.15	21.8
	26-30	-190	7.04	12.4	-248	7.23	22.8	-236	7.10	21.7
	48-52	-165	6.99	12.2	-218	7.15	22.7	-220	7.09	21.6
5	0-5	-121	7.09	11.4	-80	7.37	22.5	-78	7.21	21.7
	24-28	-234	6.94	12.0	-220	7.20	22.6	-208	7.04	21.7
	28-32	-160	6.98	11.9	-214	7.15	22.8	-202	7.00	21.8
	52-56	-180	6.97	11.5	-234	7.16	22.7	-219	6.98	21.7