Table 1 Physical and biogeochemical parameters at the different stations where vertical profiles were carried out during both campaigns (M2-0407 and M3-0510), SPM: suspended particulate matter, POC: particulate organic carbon.

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Stations and locations	ate Depth Daily River discharge	tations and locations	r Water Temperatur	Daily e Radiation	Salinity	Turbidity	SPM	POC	Chlorophyll a	Phaeo- pigment	Nitrates	Phos- phates	Silicic acid
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		m m ³ s ⁻¹		°C	Wh m ⁻²		NTU	mgL ⁻¹	%	µgL⁻¹	µgL⁻¹	μΜ	μΜ	μΜ
IE-2 (43°30.2'N, -01°29.5'W) 11.04.2007 0.5 383.7 14.3 292 0.9 10.8 11.5 4.7 3.6 9.4 115.3 0.1 58.9 M2-A (43°31.7'N, -01°32.2'W) 08.04.2007 0.5 393.5 12.7 550 25.2 n/a 2.7 15.2 4.1 7.6 36.1 nd 8.2 M2-A (43°31.7'N, -01°32.2'W) 08.04.2007 0.5 393.5 12.7 550 25.2 n/a 2.7 15.2 4.1 7.6 36.1 nd 8.2 M2-B (43°31.9'N, -01°37.1'W) 0.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 11.1 M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 11.2 M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd	Metadour 2 (April 2007) M2-0407		ur 2 (April 2007) M2-0407											
M2-A (43°31.7'N, -01°32.2'W) 08.04.2007 0.5 393.5 12.7 550 25.2 n/a 2.7 15.2 4.1 7.6 36.1 nd 8.2 4 12.6 30.4 n/a 2.9 13.1 12.1 30.8 5.5 nd 0.9 12 12.5 30.4 n/a 2.9 13.1 12.1 30.8 5.5 nd 0.9 M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 5.3 M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 5.3 2 13.1 30.2 0.8 3.2 15.2 6.5 18.6 40.8 nd 11.2 4 12.7 32.5 0.2 1.7 19.8 9.6 29.2 6.1 0.1 1.4 8 12.2 </td <td>IE-2 (43°30.2'N, - 01°29.5'W)</td> <td>4.2007 0.5 383.7</td> <td>3°30.2'N, - 01°29.5'W)</td> <td>14.3</td> <td>292</td> <td>0.9</td> <td>10.8</td> <td>11.5</td> <td>4.7</td> <td>3.6</td> <td>9.4</td> <td>115.3</td> <td>0.1</td> <td>58.9</td>	IE-2 (43°30.2'N, - 01°29.5'W)	4.2007 0.5 383.7	3°30.2'N, - 01°29.5'W)	14.3	292	0.9	10.8	11.5	4.7	3.6	9.4	115.3	0.1	58.9
4 12.6 30.4 n/a 2.9 13.1 12.1 30.8 5.5 nd 0.9 12 12.5 34.6 n/a 3.2 8.5 3.8 11.6 1.2 nd 1.1 M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 5.3 2 13.1 30.2 0.8 3.2 15.2 6.5 18.6 40.8 nd 11.2 4 12.7 32.5 0.2 1.7 19.8 9.6 29.2 6.1 0.1 1.4 8 12.2 33.2 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 20 12.5 35.0 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2	M2-A (43°31.7'N, -01°32.2'W)	4.2007 0.5 393.5	(43°31.7'N, -01°32.2'W)	12.7	550	25.2	n/a	2.7	15.2	4.1	7.6	36.1	nd	8.2
M2-B 12 12.5 34.6 n/a 3.2 8.5 3.8 11.6 1.2 nd 1.1 M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 5.3 4 12.7 30.2 0.8 3.2 15.2 6.5 18.6 40.8 nd 11.2 4 12.7 32.5 0.2 1.7 19.8 9.6 29.2 6.1 0.1 1.4 8 12.2 33.2 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 90 20 12.5 35.0 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 90 20 12.5 35.0 nd 1.4 21.3 9.3 22.0 2.4 nd 0.2 91 92.5 93 93 23 nd 0.2 1.4 1.2 92.6 93 93		4		12.6		30.4	n/a	2.9	13.1	12.1	30.8	5.5	nd	0.9
M2-B (43°31.9'N, -01°37.1'W) 10.04.2007 0.5 393.9 13.5 409 25.3 1.3 3.6 12.7 5.5 14.3 20.4 nd 5.3 2 13.1 30.2 0.8 3.2 15.2 6.5 18.6 40.8 nd 11.2 4 12.7 32.5 0.2 1.7 19.8 9.6 29.2 6.1 0.1 1.4 8 12.2 33.2 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 20 12.5 35.0 rd 0.4 20.6 0.1 2.3 rd rd 0.2		12		12.5		34.6	n/a	3.2	8.5	3.8	11.6	1.2	nd	1.1
2 13.1 30.2 0.8 3.2 15.2 6.5 18.6 40.8 nd 11.2 4 12.7 32.5 0.2 1.7 19.8 9.6 29.2 6.1 0.1 1.4 8 12.2 33.2 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 20 12.5 35.0 nd 0.4 20.6 0.1 2.3 nd 0.2	M2-B (43°31.9'N, -01°37.1'W)	4.2007 0.5 393.9	(43°31.9'N, -01°37.1'W)	13.5	409	25.3	1.3	3.6	12.7	5.5	14.3	20.4	nd	5.3
4 12.7 32.5 0.2 1.7 19.8 9.6 29.2 6.1 0.1 1.4 8 12.2 33.2 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 20 12.5 35.0 nd 0.4 20.6 0.1 2.3 nd 0.2		2		13.1		30.2	0.8	3.2	15.2	6.5	18.6	40.8	nd	11.2
8 12.2 33.2 nd 1.4 21.3 9.3 22.0 2.4 nd 1.2 20 125 350 nd 0.4 20.6 0.1 2.3 nd nd 0.2		4		12.7		32.5	0.2	1.7	19.8	9.6	29.2	6.1	0.1	1.4
20 125 250 nd 0.4 206 0.1 2.2 nd nd 0.2		8		12.2		33.2	nd	1.4	21.3	9.3	22.0	2.4	nd	1.2
20 12.5 55.0 Hd 0.4 20.0 0.1 2.5 Hd Hd 0.2		20		12.5		35.0	nd	0.4	20.6	0.1	2.3	nd	nd	0.2
40 12.9 35.4 nd 0.5 15.2 0.4 1.0 2.0 0.1 1.3		40		12.9		35.4	nd	0.5	15.2	0.4	1.0	2.0	0.1	1.3
M2-C (43°33.5'N, -01°45.3'W) 09.04.2007 0.5 468.6 13.5 438 32.2 nd 4.6 9.9 5.1 14.2 n/a nd 11.8	M2-C (43°33.5'N, -01°45.3'W)	4.2007 0.5 468.6	(43°33.5'N, -01°45.3'W)	13.5	438	32.2	nd	4.6	9.9	5.1	14.2	n/a	nd	11.8
4 13.4 34.2 nd 0.5 18.8 0.7 2.0 0.4 nd 1.1		4		13.4		34.2	nd	0.5	18.8	0.7	2.0	0.4	nd	1.1
12 12.6 34.6 nd 0.2 36.7 0.8 2.4 0.4 0.1 1.6		12		12.6		34.6	nd	0.2	36.7	0.8	2.4	0.4	0.1	1.6
20 12.7 35.0 nd 0.3 18.8 0.7 n/a 1.0 nd 2.0		20		12.7		35.0	nd	0.3	18.8	0.7	n/a	1.0	nd	2.0
30 12.8 35.3 nd 0.2 32.3 0.7 1.6 1.4 0.1 2.3		30		12.8		35.3	nd	0.2	32.3	0.7	1.6	1.4	0.1	2.3
50 13.0 35.6 nd 0.3 24.5 0.6 1.5 2.4 0.1 2.2		50		13.0		35.6	nd	0.3	24.5	0.6	1.5	2.4	0.1	2.2
Metadour 3 (May 2010) M3-0510	Metadour 3 (May 2010) M3-0510		our 3 (May 2010) M3-0510											
IE-3 (43°30.2'N, -01°29.5'W) 15.05.2010 0.5 476.8 12.3 235 0.2 n/a 18.9 4.6 0.5 4.2 114.1 0.2 7.3	IE-3 (43°30.2'N, -01°29.5'W)	5.2010 0.5 476.8	3°30.2'N, -01°29.5'W)	12.3	235	0.2	n/a	18.9	4.6	0.5	4.2	114.1	0.2	7.3
6 12.3 0.2 n/a 20.9 4.4 n/a n/a 145.7 0.2 41.9		6		12.3		0.2	n/a	20.9	4.4	n/a	n/a	145.7	0.2	41.9
M3-D (43°31.1'N, -01°34.3'W) 16.05.2010 0.5 573.0 14.3 520 27.7 4.9 4.6 6.7 0.9 2.7 12.6 0.1 4.7	M3-D (43°31.1'N, -01°34.3'W)	5.2010 0.5 573.0	(43°31.1'N, -01°34.3'W)	14.3	520	27.7	4.9	4.6	6.7	0.9	2.7	12.6	0.1	4.7
1 452.1 14.3 27.1 4.6 4.3 n/a 0.5 2.2 15.3 0.1 7.5		1 452.1		14.3		27.1	4.6	4.3	n/a	0.5	2.2	15.3	0.1	7.5
5 14.5 35.0 1.0 0.7 n/a 0.8 1.9 3.4 nd 0.5		5		14.5		35.0	1.0	0.7	n/a	0.8	1.9	3.4	nd	0.5
24 14.2 35.4 0.4 0.1 n/a 0.3 0.8 1.3 0.1 n/a		24		14.2		35.4	0.4	0.1	n/a	0.3	0.8	1.3	0.1	n/a
M3-E (43°33.3'N, -01°45.2'W) 17.05.2010 0.5 389.4 15.5 411 34.6 1.4 1.1 9.3 0.4 1.2 2.3 0.1 0.3	M3-E (43°33.3'N, -01°45.2'W)	5.2010 0.5 389.4	(43°33.3'N, -01°45.2'W)	15.5	411	34.6	1.4	1.1	9.3	0.4	1.2	2.3	0.1	0.3
1 452.1 15.3 31.5 1.5 1.2 n/a 1.3 2.8 1.0 0.1 nd		1 452.1		15.3		31.5	1.5	1.2	n/a	1.3	2.8	1.0	0.1	nd
4 14.8 35.2 0.4 0.1 n/a 1.3 2.8 n/a n/a n/a		4		14.8		35.2	0.4	0.1	n/a	1.3	2.8	n/a	n/a	n/a
13 14.4 35.2 0.3 nd n/a 0.5 1.2 0.4 0.1 nd		13		14.4		35.2	0.3	nd	n/a	0.5	1.2	0.4	0.1	nd
20 14.0 35.6 0.1 nd n/a 0.5 1.2 n/a n/a n/a		20		14.0		35.6	0.1	nd	n/a	0.5	1.2	n/a	n/a	n/a
55 13.7 35.6 0.1 nd n/a 0.1 0.5 3.4 0.2 nd		55		13.7		35.6	0.1	nd	n/a	0.1	0.5	3.4	0.2	nd
80 13.4 35.6 0.3 nd n/a 0.1 0.5 n/a n/a n/a		80		13.4		35.6	0.3	nd	n/a	0.1	0.5	n/a	n/a	n/a
M3-F (43°36.1'N, -01°47.8'W) 18.05.2010 5 412.3 14.7 724 35.2 0.3 0.7 10.0 0.4 1.2 2.4 0.1 nd	M3-F (43°36.1'N, -01°47.8'W)	5.2010 5 412.3	(43°36.1'N, -01°47.8'W)	14.7	724	35.2	0.3	0.7	10.0	0.4	1.2	2.4	0.1	nd
22 14.1 35.4 0.3 0.9 10.8 0.8 2.3 7.8 0.1 nd		22	, , ,	14.1		35.4	0.3	0.9	10.8	0.8	2.3	7.8	0.1	nd
40 12.5 35.6 0.1 0.8 10.4 n/a n/a n/a n/a n/a		40		12.5		35.6	0.1	0.8	10.4	n/a	n/a	n/a	n/a	n/a
80 12.3 35.7 0.1 nd n/a n/a n/a n/a n/a n/a n/a		80		12.3		35.7	0.1	nd	n/a	n/a	n/a	n/a	n/a	n/a
240 12.0 35.7 0.4 0.1 n/a 0.2 0.3 10.0 0.1 0.3		240		12.0		35.7	0.4	0.1	n/a	0.2	0.3	10.0	0.1	0.3
800 10.7 35.7 0.5 0.1 n/a 0.1 0.2 4.4 0.2 0.1		800		10.7		35.7	0.5	0.1	n/a	0.1	0.2	4.4	0.2	0.1

(n/a: not available, nd: not detected)

Station	Depth	DGM	MeHg _D	Hg(II) _D	MeHg _P	Hg(II) _P	MeHg _T	Hg(II) _T	Hg _T	$Hg_{P}\!/\;Hg_{T}$	Hg(II) _T / Hg _T	MeHg _T / Hg _T
	m		pМ		nmo	l g ⁻¹		pМ		%	%	%
Metadour 2 (April 2007) M2-0407												
IE-2 (43°30.2'N, -01°29.5W)	0.5	n/a	0.16	1.70	0.08	11.54	0.24	13.24	13.48	86.2	98.2	1.8
M2-A (43°31.7'N, -01°32.2'W)	0.5	0.26	0.11	1.66	0.03	2.96	0.14	5.47	5.93	59.6	92.0	2.8
	4	0.19	0.10	2.22	0.05	2.81	0.15	4.23	4.43	53.2	93.5	2.9
	12	0.11	0.13	5.78	0.02	1.97	0.14	4.29	4.34	25.1	98.2	1.8
M2-B (43°31.9'N, -01°37.1'W)	0.5	0.28	0.17	1.66	0.02	1.50	0.19	3.16	3.63	41.9	87.0	5.2
	2	0.25	0.06	1.05	0.01	0.85	0.07	1.89	2.22	38.6	85.4	3.4
	4	0.29	0.11	1.73	0.01	0.72	0.12	2.45	2.87	25.4	85.5	4.3
	8	0.25	0.13	0.77	0.01	0.89	0.14	1.65	2.04	43.9	80.8	7.1
	20	0.23	0.06	0.67	0.01	0.88	0.07	1.55	1.85	48.2	83.9	3.7
	40	0.31	0.07	0.92	0.01	0.78	0.08	1.70	2.09	37.5	81.5	3.7
M2-C (43°33.5'N, -01°45.3'W)	0.5	0.23	0.09	2.94	0.04	2.16	0.13	5.09	5.46	40.3	93.3	2.5
	4	0.33	0.06	2.16	<d.1.< td=""><td>0.49</td><td>0.06</td><td>2.64</td><td>3.04</td><td>16.1</td><td>87.1</td><td>2.0</td></d.1.<>	0.49	0.06	2.64	3.04	16.1	87.1	2.0
	12	0.25	0.11	0.65	0.01	0.33	0.11	0.97	1.33	25.0	72.8	8.5
	20	0.33	0.10	0.84	0.01	4.26	0.11	5.10	5.54	77.1	92.2	1.9
	30	0.27	0.05	1.96	0.01	0.81	0.06	2.77	3.10	26.5	89.5	1.9
	50	0.29	0.09	1.03	0.01	1.85	0.09	2.88	3.26	56.9	88.4	2.8
Metadour 3 (May 2010) M3-0510												
IF-3 (43°30 2'N -01°29 5'W)	0.5	0.12	0.27	1 41	0.35	5.41	0.62	6.83	7 57	76.2	90.2	82
H-5 (45 50.2 IV, 01 29.5 W)	6	0.12	0.27	1.71	0.35	1.17	0.02	2.40	2.50	40.7	71.2	12.4
M3 D $(42^{\circ}21 1)$ N $(01^{\circ}24 2)$ W	0.5	0.34	0.22	1.52	0.20	0.80	0.47	2.49	3.50	40.7	71.2 99.4	6.2
M3-D (45 51.1 N, -01 54.5 W)	0.5	0.14	0.11	1.02	0.00	0.89	0.17	2.31	2.82	32.3	00.4 92.6	0.5
	1	0.20	0.09	1.58	0.02	0.32	0.11	1.90	2.20	23.9	85.0 86.9	4.0
	24	0.13	0.04	0.40	0.01	0.07	0.04	0.58	0.82	5.7	80.8 70.5	5.2
M3 E $(42^{\circ}22, 2^{\circ}N) = 01^{\circ}45, 2^{\circ}N$	24	0.19	0.03	0.49	0.01	0.09	0.03	2.00	0.82	27.0	70.3 87 A	0.4
M3-E (45 55.5 N, -01 45.2 W)	0.5	0.20	0.07	0.05	0.04	0.90	0.09	2.00	2.29	567	86.5	4.0
	1	0.27	0.09	0.95	0.14	2.37	0.33	2.04	4.44	50.7 72.1	86.3	7.5
	4	0.20	0.02	1.08	0.10	2.17	0.18	2.78	3.22	12.1	80.3	5.5
	13	0.31	0.04	1.06	0.07	0.90	0.11	2.04	2.47	42.0	86.9	4.0
	20 55	0.25	0.03	1.00	0.10	1.05	0.18	2.09	3.09	58.7	86.6	5.7
	80	0.25	0.04	2.33	0.15	0.54	0.19	2.84	3.27	18.7	85.6	5.8
M3 F $(13^{\circ}36 1^{\circ}N 01^{\circ}47 8^{\circ}W)$	5	0.28	0.12	2.55	0.08	1.19	0.20	2.80	3.35	40.2	88.3	5.1
1113-1 (43 30.1 11, -01 47.0 W)	5 22	0.21	0.00	1.04	0.10	1.17	0.16	2.05	2.20	40.2	86.2	5.3
	40	0.25	0.10	1.07	0.07	1.21	0.10	2.50	2.31	45.1	87.3	5.5
	40	0.29	0.11	1.62	0.05	1.23	0.15	3.00	3.30 4.18	54.5	01.5	+.+ 3 0
	240	0.10	0.10	1.02	0.00	2.22	0.16	5.05 5.25	4.10	54.5 72.3	91.7	2.9
	240	0.17	0.12	0.05	0.05	J.99 1 00	0.10	3.23 2.87	3.50	61.1	78.0	2.9 11 Q
	000	0.34	0.15	0.95	0.50	1.72	0.45	2.07	5.04	01.1	10.9	11.0

Table 2 Summary of Hg species concentration detected in the various vertical profiles carried out during both campaigns, $Hg_T = DGM + MeHg_T + Hg(II)_T$. RSD for all species are < 10%.

Table 3 Methylation, Demethylation and Reduction potentials (mean \pm SD, n = 3) in filtered and unfiltered surface waters performed under light and dark conditions for both campaigns: M2-0407 (M2-A, M2-B, M2-C) and M3-0510 (M3-D, M3-E, M3-F). Detection limits are 0.01, 2.0 and 0.3 % for methylation, demethylation and reduction yields, respectively.

	Hg(II) Methylation (% day ⁻¹)				Me	Hg Demethy	lation (% day	y ⁻¹)	Hg Reduction (% day ⁻¹)				
	Unfiltered waters		Filtered waters		Unfiltered waters		Filtered waters		Unfiltered waters		Filtered waters		
Stations	Diurnal	Dark	Diurnal	Dark	Diurnal	Dark	Diurnal	Dark	Diurnal	Dark	Diurnal	Dark	
M2-A	< 0.01	0.1 ± 0.1	< 0.01	< 0.01	50.2 ± 13.5	20.5 ± 12.2	25.3 ± 11.4	9.6 ± 3.3	6.5 ± 0.2	8.2 ± 0.8	4.3 ± 2.3	1.6 ± 0.4	
M2-B	0.4 ± 0.1	0.1 ± 0.1	0.3 ± 0.1	< 0.01	18.8 ± 4.0	18.0 ± 7.3	15.4 ± 2.5	6.1 ± 0.2	4.5 ± 0.5	1.2 ± 0.5	10.5 ± 1.4	0.3 ± 1.4	
M2-C	0.1 ± 0.1	< 0.01	< 0.01	< 0.01	31.7 ± 6.1	20.8 ± 9.3	28.5 ± 13.8	13.2 ± 6.1	7.2 ± 0.4	8.5 ± 2.2	9.0 ± 0.5	7.3 ± 1.3	
M3-D	< 0.01	< 0.01	< 0.01	< 0.01	55.3 ± 35.0	22.1 ± 4.6	45.5 ± 12.1	2.9 ± 1.4	16.8 ± 3.4	14.7 ± 2.9	43.5 ± 8.7	7.2 ± 1.4	
М3-Е	< 0.01	< 0.01	< 0.01	< 0.01	23.5 ± 5.8	6.8 ± 0.9	8.0 ± 1.2	2.3 ± 3.0	19.7 ± 3.9	10.5 ± 2.1	25.0 ± 5.0	9.0 ± 1.8	
M3-F	< 0.01	< 0.01	< 0.01	< 0.01	6.6 ± 3.5	10.9 ± 3.6	24.3 ± 9.4	< 2.0	29.8 ± 6.0	5.0 ± 1.0	10.2 ± 2.0	2.8 ± 0.6	

Stations	Δ[Me	Hg]	$\Delta[Hg^0]^*$			
Stations	pmol m ⁻³ d ⁻¹	ng m ⁻³ d ⁻¹	pmol m ⁻³ d ⁻¹	ng m ⁻³ d ⁻¹		
M2-A concentrated plume	-64 ± 51	-13 ± 10	-55 ± 10	-11 ± 2		
M2-B concentrated plume	16 ± 1	3 ± 0	-254 ± 0	-51 ± 0		
M2-C diluted plume	-26 ± 7	-5 ± 1	-140 ±20	-28 ± 4		
M3-D concentrated plume	-91 ± 39	-18 ± 8	-174 ±74	-35 ± 15		
M3-E diluted plume	-27 ± 20	-5 ± 4	-261 ±96	-52 ± 19		
M3-F marine water	-21 ± 1	-4 ± 0	-180 ± 19	-36 ±4		

Table 4 Potential daily variations of MeHg and gaseous Hg concentrations in the Adour estuarine plume, calculated using models described in section 3.2.2 and 3.2.3

*Clark's model (Clark et al., 1995) for gas exchange and Plume mixed layer depth of 1m used for Δ [Hg°] calculations

		Plume surface area	Estuarine input MeHg _T	Net MeHg demethylation*	Demethylation loss of MeHg _T	Estuarine input Hg _T	Hg ⁰ Flux density [#]	Atmospheric evasion of Hg ⁰
	-	km ²	(g d ⁻¹)	ng m ⁻² d ⁻¹	g d ⁻¹	g d ⁻¹	ng m ⁻² d ⁻¹	g d ⁻¹
	Concentrated plume	274		11.2 ± 0.1	3.1 ± 0.04		78.6 ± 48.3	21.6 ± 13.2
M2-0407	Diluted plume	119		5.2 ± 1.4	0.6 ± 0.2		45.0 ± 1.4	5.4 ± 0.2
	Total plume	393	0.9 ± 0.1 (3.3 ± 5.2)		3.7 ± 0.2	$\begin{array}{c} 69.1 \pm 53.6 \\ (44.4 \pm 28.1) \end{array}$		26.9 ± 13.4
M3-0510	Concentrated plume	83		18.2 ± 7.9	1.5 ± 0.6		38.8 ± 19.7	3.2 ± 1.6
	Diluted plume	94		5.4 ± 3.9	0.5 ± 0.4		59.3 ± 22.2	5.6 ± 2.1
	Total plume	177	3.5 ± 0.3 (3.3 ± 5.2)		2.0 ± 1.0	33.5 ± 17.0 (44.4 ± 28.1)		$\textbf{8.8} \pm \textbf{3.7}$

Table 5 Comparisons between estuarine inputs of $MeHg_T$ and Hg_T and integrated demethylation in plume waters and Hg^0 evasion from the plume to the atmosphere. Values in brackets were reported by Point, (2004) for the same site.

*Area normalized demethylation rate assuming an estuarine plume mixed layer depth of 1 m. ${}^{\#}Hg^{\circ}$ evasion calculated using gas exchange model (Clark et al., 1995)