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Supplement of

Scavenging ratios of polycyclic aromatic compounds in rain and snow in the Athabasca oil sands region

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Supplementary Materials

Table S1: Monthly precipitation concentrations (ng/L). IDL = instrument detection limit (Pages 2 to 10)

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations. NA = weekly air samples with recovery standard percentage below 50% or above 150%. Dash - indicates no samples were collected (Pages 11 to 19)

Table S3: Descriptive statistics of the total scavenging ratios (W_t) for snow and rain at the oil sands sites. (G) and (P) denote predominantly gas-phase and particulate-phase PACs, respectively (Page 20)

Abbreviation	Full name	Abbreviation	Full name
NAP	Naphthalene	BbFLT	Benzo(<i>b</i>)fluoranthene
AL	Acenaphthylene	BkFLT	Benzo(<i>k</i>)fluoranthene
AE	Acenaphthene	BaPY	Benzo(<i>a</i>)pyrene
FL	Fluorene	PER	Perylene
PHE	Phenanthrene	IP	Indeno(<i>1,2,3-cd</i>)pyrene
AN	Anthracene	DahAN	Dibenz(<i>a,h</i>)anthracene
FLT	Fluoranthene	BghiPER	Benzo(<i>ghi</i>)perylene
PY	Pyrene	PHE/AN	Phenanthrene/Anthracene
RET	Retene	FLT/PYR	Fluoranthene/Pyrene
BaAN	Benz(<i>a</i>)anthracene	BTC	Benz(<i>a</i>)anthracene/Triphenylene/Chrysene
CHR	Chrysene	DBT	Dibenzothiophene

Table S1: Monthly precipitation concentrations (ng/L)

Site	Start date	NAP	AL	AE	FL	PHE	AN	FLT	PY	RET	BaAN	CHR	BbFLT	BkFLT	BaPY	PER	IP
AMS5	02/01/2011	IDL	0.1	3.1	13.4	109.6	33.0	43.9	128.5	IDL	251.4	370.8	136.3	28.1	194.0	20.0	61.8
AMS5	31/01/2011	841.8	3.9	10.3	52.2	567.8	209.7	169.9	567.1	IDL	786.2	1109.6	344.0	92.3	668.3	57.3	137.1
AMS5	02/03/2011	4862.7	9.9	44.7	148.5	1404.0	796.6	556.0	1631.9	176.9	1902.9	3109.1	1708.3	250.0	3948.9	182.5	352.3
AMS5	01/04/2011	2166.6	4.4	16.9	80.7	773.9	337.8	195.3	764.6	43.5	871.1	1333.9	308.0	111.1	979.0	75.8	167.0
AMS5	01/05/2011	3876.0	8.8	54.6	33.9	227.8	85.1	50.0	195.0	25.9	203.7	376.0	72.7	21.0	208.5	21.4	35.5
AMS5	02/06/2011	243.3	1.9E-02	IDL	3.1	18.0	3.1	4.2	12.4	0.2	10.0	17.4	4.2	1.0	7.1	0.9	1.0
AMS5	19/07/2011	IDL	3.1E-03	IDL	1.3	9.9	1.5	4.0	6.0	50.1	5.2	8.7	2.5	0.2	3.7	1.0	0.8
AMS5	02/08/2011	534.8	1.7E-02	IDL	1.6	10.4	1.9	2.9	9.8	7.7	7.8	12.9	2.9	0.9	5.5	0.8	0.9
AMS5	01/09/2011	43.5	1.2	2.6	2.5	15.8	2.2	4.8	10.3	10.1	6.3	11.4	3.8	5.9E-02	6.1	2.5	1.7
AMS5	30/09/2011	138.8	3.4E-02	4.9	4.4	20.4	4.6	6.1	17.2	10.3	14.7	22.7	5.8	IDL	12.1	1.2	1.3
AMS5	01/11/2011	0.5	1.2	2.2	2.5	24.3	3.2	9.6	18.8	29.4	10.2	20.1	8.8	0.4	8.9	5.0	3.6
AMS5	30/11/2011	90.9	0.1	1.3	8.2	31.6	3.0	16.4	27.9	12.0	12.3	17.0	7.6	2.0	2.0	1.8	2.3
AMS5	30/12/2011	41.6	1.4	2.8	13.0	134.1	43.9	46.3	144.6	88.3	200.5	255.8	71.4	20.9	188.3	14.2	33.0
AMS5	31/01/2012	95.3	2.3	6.7	38.3	356.1	134.6	104.9	339.3	167.7	355.8	469.9	160.8	30.4	397.8	33.8	78.7
AMS5	29/02/2012	2497.5	40.0	118.8	521.3	5173.8	2092.5	1731.3	5780.0	1201.3	7672.5	1.1E+04	2772.5	612.5	6960.0	572.5	1242.5
AMS5	30/03/2012	23.2	0.4	1.5	9.0	83.4	26.2	25.1	81.1	9.0	103.9	141.8	38.3	9.8	77.3	7.0	19.1
AMS5	30/04/2012	0.6	0.4	0.8	3.5	32.1	7.2	14.1	29.1	8.3	23.5	35.8	12.3	2.6	22.0	4.8	6.3
AMS5	31/05/2012	26.0	0.7	2.9	4.2	40.2	7.3	12.2	31.0	33.1	33.2	43.3	22.0	3.5	27.3	8.3	9.0

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	NAP	AL	AE	FL	PHE	AN	FLT	PY	RET	BaAN	CHR	BbFLT	BkFLT	BaPY	PER	IP
AMS11	02/01/2011	2558.7	4.3	7.7	36.4	350.4	115.2	133.5	369.7	172.4	503.1	695.7	234.5	51.6	370.8	36.4	98.9
AMS11	31/01/2011	474.9	3.2	11.7	82.6	831.8	314.8	271.8	901.0	IDL	1440.3	1934.9	606.7	161.1	1263.6	113.2	257.3
AMS11	02/03/2011	5836.3	12.7	70.9	255.9	2268.9	1133.1	591.9	2191.6	159.8	2377.1	3333.6	545.5	199.3	4650.8	208.5	404.3
AMS11	01/04/2011	4499.5	4.0	20.3	99.6	838.1	365.2	203.5	778.4	43.6	951.8	1439.4	336.9	95.2	1049.1	93.5	173.0
AMS11	30/04/2011	1.0E+04	4.7	33.4	168.0	1494.1	726.2	367.4	1547.8	46.5	1874.2	2856.9	659.5	137.8	1815.5	169.8	295.4
AMS11	02/06/2011	555.7	2.5E-02	3.6	12.4	110.7	38.2	29.2	114.4	81.5	138.0	195.2	50.3	12.9	116.0	10.4	20.2
AMS11	19/07/2011	13.8	3.8E-03	IDL	3.0	26.5	9.2	7.4	25.0	58.3	33.0	46.4	12.1	2.2	27.8	2.7	5.2
AMS11	02/08/2011	138.7	1.0E-02	IDL	2.6	25.7	7.2	6.7	20.6	0.1	27.3	39.6	11.5	0.5	21.8	3.0	4.1
AMS11	01/09/2011	353.1	4.7E-02	16.0	21.8	128.8	44.1	38.2	121.6	IDL	132.0	184.9	49.9	13.8	123.2	17.5	22.9
AMS11	30/09/2011	45.8	0.4	3.8	6.2	39.7	14.8	10.1	36.2	12.0	43.6	60.6	15.4	3.6	38.8	5.0	6.9
AMS11	01/11/2011	5.2	0.2	2.0	3.5	40.2	10.3	13.6	40.7	31.0	49.6	64.5	19.4	3.4	40.5	6.2	5.9
AMS11	30/11/2011	2675.0	IDL	55.0	870.0	1.1E+04	4087.5	3317.5	1.3E+04	30.0	1.9E+04	2.2E+04	5907.5	1280.0	1.6E+04	1187.5	2462.5
AMS11	20/12/2011	92.3	2.5	8.7	36.0	335.5	123.7	96.2	357.4	31.7	520.9	635.7	182.1	44.7	486.5	34.6	83.0
AMS11	30/01/2012	242.1	3.9	17.6	89.2	848.8	334.8	228.0	794.9	197.6	1087.9	1402.8	395.9	91.7	995.1	74.1	196.3
AMS11	29/02/2012	1.2E+04	106.7	823.3	4643.3	4.2E+04	1.6E+04	1.2E+04	4.0E+04	6090.0	5.6E+04	7.1E+04	2.0E+04	5560.0	5.0E+04	3893.3	9353.3
AMS11	30/03/2012	44.6	0.5	3.1	17.6	172.9	69.6	48.4	181.2	9.0	254.4	322.6	90.0	20.7	231.5	17.7	46.4
AMS11	30/04/2012	9.6	0.2	1.7	6.0	65.4	19.7	18.8	60.2	9.2	77.3	104.0	32.0	8.2	64.6	8.8	14.3
AMS11	31/05/2012	23.0	0.5	3.5	3.9	26.1	2.8	5.6	14.5	23.9	17.0	23.0	9.8	1.6	12.9	3.6	4.3

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	NAP	AL	AE	FL	PHE	AN	FLT	PY	RET	BaAN	CHR	BbFLT	BkFLT	BaPY	PER	IP
AMS13	24/01/2011	56.4	0.5	0.9	4.0	34.1	5.1	15.2	24.8	11.8	36.5	60.7	24.2	5.9	26.1	4.8	10.2
AMS13	31/01/2011	1662.5	2.0	3.9	12.8	129.1	37.5	51.7	128.9	63.3	161.4	234.9	81.0	16.8	132.3	16.2	33.6
AMS13	02/03/2011	2165.3	3.7	7.2	15.5	125.8	24.3	46.5	60.8	142.6	61.4	79.0	17.1	5.0	66.0	10.9	10.5
AMS13	01/04/2011	1965.9	0.4	0.7	3.3	63.1	17.7	18.3	46.4	39.5	45.3	73.9	26.6	5.8	45.7	14.6	10.6
AMS13	30/04/2011	3929.4	9.9	69.0	22.6	99.3	14.7	15.3	56.1	8.3	29.5	50.2	15.3	5.6	27.9	10.4	6.6
AMS13	02/06/2011	11.4	3.8E-02	IDL	2.7	24.2	4.3	6.6	21.7	0.4	18.3	30.8	7.6	1.9	13.1	1.7	1.9
AMS13	19/07/2011	31.6	2.5E-03	IDL	1.6	10.3	1.1	2.8	4.1	91.4	3.5	5.5	1.6	0.1	1.8	0.1	0.1
AMS13	02/08/2011	121.7	1.0E-02	IDL	IDL	2.8	5.0E-02	0.6	0.9	1.8	0.3	0.2	0.3	0.5	0.5	0.5	0.5
AMS13	01/09/2011	28.1	1.2E-02	1.4	1.3	5.7	0.4	1.2	2.1	3.5	1.9	2.4	0.8	IDL	0.6	0.5	0.6
AMS13	30/09/2011	49.5	1.1	2.4	2.0	12.6	1.3	4.1	8.7	6.8	4.8	7.5	1.7	IDL	3.1	1.1	1.2
AMS13	01/11/2011	13.3	0.2	0.9	2.5	28.2	6.5	10.8	26.1	26.7	27.4	37.3	11.3	0.4	23.8	2.2	3.8
AMS13	30/11/2011	19.0	IDL	3.2	5.9	72.8	20.2	28.3	80.8	53.7	93.3	123.4	39.4	7.3	81.8	12.6	13.7
AMS13	30/12/2011	29.9	1.4	1.3	6.1	54.5	11.8	24.6	50.3	57.4	53.1	70.3	22.9	3.7	48.2	5.9	13.5
AMS13	31/01/2012	9.2	0.9	0.4	5.2	57.7	11.6	19.1	38.7	68.7	45.1	61.8	15.5	3.9	37.4	4.6	8.0
AMS13	29/02/2012	109.7	0.7	6.5	43.5	523.2	150.0	161.2	469.3	235.2	615.0	833.2	207.7	41.7	547.0	55.7	103.7
AMS13	30/03/2012	40.9	0.5	5.2	13.5	189.3	22.7	41.6	82.7	64.3	87.6	127.8	45.3	8.0	68.7	23.3	20.1
AMS13	30/04/2012	IDL	0.1	1.1	1.4	22.8	1.9	5.4	11.3	15.5	9.5	14.6	6.3	1.2	6.2	3.5	2.8
AMS13	31/05/2012	19.5	0.4	1.7	2.3	19.7	2.5	6.0	10.4	17.3	10.3	16.3	8.7	1.5	8.5	3.1	3.5

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	DahAN	BghiPER	C1 NAP	C2 NAP	C3 NAP	C4 NAP	C1 FL	C2 FL	C3 FL	C4 FL	C1 PHE/AN	C2 PHE/AN	C3 PHE/AN	C4 PHE/AN	C1 FLT/PYR	C2 FLT/PYR
AMS5	02/01/2011	113.5	203.3	61.3	66.0	89.6	31.4	55.1	213.7	221.2	102.7	282.5	328.0	210.1	77.4	218.9	661.0
AMS5	31/01/2011	255.7	458.3	346.6	406.9	446.3	143.9	244.5	663.5	1540.5	587.7	1719.8	2416.0	1879.3	1001.6	1106.9	2907.2
AMS5	02/03/2011	879.2	1257.7	257.8	267.7	355.2	129.7	187.4	524.7	1273.1	519.8	1566.7	2499.6	1738.2	861.3	1107.1	2872.9
AMS5	01/04/2011	278.6	564.5	442.9	462.6	432.3	172.0	219.1	537.1	1102.3	516.7	1657.5	2444.7	1713.1	926.3	1171.5	2973.2
AMS5	01/05/2011	59.3	123.3	32.9	39.3	33.3	30.0	31.0	140.3	301.1	300.0	182.0	256.3	201.6	93.8	123.6	389.1
AMS5	02/06/2011	0.6	5.5	12.7	15.6	22.5	26.8	5.5	43.7	70.0	70.6	43.4	74.5	83.5	39.6	24.6	81.7
AMS5	19/07/2011	1.0	2.8	3.1	5.9	33.0	23.9	6.5	21.5	80.2	24.7	30.3	90.7	103.9	82.3	13.5	56.1
AMS5	02/08/2011	0.5	4.1	7.0	3.7	14.1	8.9	6.1	15.3	42.5	32.1	24.8	56.9	63.6	48.4	16.1	61.3
AMS5	01/09/2011	1.8	5.0	7.5	10.8	19.0	15.4	6.6	19.3	42.7	36.2	35.4	92.8	107.7	75.9	18.0	72.5
AMS5	30/09/2011	3.9	8.1	24.3	20.9	27.5	15.7	6.4	16.7	33.3	22.4	30.3	78.1	87.2	50.0	17.0	56.5
AMS5	01/11/2011	2.3	8.7	IDL	IDL	24.9	34.0	11.4	41.0	145.6	109.8	76.3	217.2	299.4	211.9	41.6	186.6
AMS5	30/11/2011	1.0	2.0	28.7	41.0	38.6	69.8	56.6	134.8	207.2	124.6	82.6	176.6	228.4	88.2	28.4	122.2
AMS5	30/12/2011	67.2	108.9	70.6	95.1	95.6	54.9	58.1	146.5	321.7	164.8	401.5	604.0	435.0	245.2	262.6	721.3
AMS5	31/01/2012	143.6	243.4	234.0	283.1	257.3	133.5	164.6	374.1	782.4	397.0	1060.3	1595.2	1098.9	687.5	651.2	1739.9
AMS5	29/02/2012	2450.0	4232.5	4848.6	6114.3	5258.1	2431.4	2524.9	6450.5	1.3E+04	5713.0	1.9E+04	3.0E+04	2.0E+04	1.1E+04	1.4E+04	3.6E+04
AMS5	30/03/2012	30.3	56.4	67.6	82.0	81.4	33.4	43.8	102.9	210.7	100.1	288.9	429.8	277.8	157.4	183.7	523.3
AMS5	30/04/2012	7.7	17.5	7.4	14.6	39.7	29.0	15.6	51.5	127.2	85.5	112.5	246.5	235.4	140.1	59.3	196.9
AMS5	31/05/2012	10.3	23.4	46.0	47.2	67.0	56.2	18.7	79.0	151.5	103.2	110.6	289.9	372.2	230.9	68.7	261.6

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	DahAN	BghiPER	C1 NAP	C2 NAP	C3 NAP	C4 NAP	C1 FL	C2 FL	C3 FL	C4 FL	C1 PHE/AN	C2 PHE/AN	C3 PHE/AN	C4 PHE/AN	C1 FLT/PYR	C2 FLT/PYR
AMS11	02/01/2011	151.7	298.7	247.6	258.9	208.6	93.3	152.2	365.7	994.0	407.6	1043.5	1592.5	1332.4	745.3	712.1	1885.5
AMS11	31/01/2011	474.7	842.7	292.4	331.9	406.6	152.0	389.0	966.9	2191.1	1137.6	2450.5	3325.4	2656.4	1286.4	1695.4	4577.9
AMS11	02/03/2011	826.4	1378.0	413.9	363.8	397.3	131.7	233.9	613.4	1336.7	685.9	1904.3	2844.0	1901.1	974.3	1342.1	3441.0
AMS11	01/04/2011	315.0	588.0	315.2	207.7	258.7	124.3	209.0	524.0	1455.4	625.5	1590.8	2536.2	1743.0	854.3	1180.4	3119.1
AMS11	30/04/2011	539.0	971.1	683.0	581.7	639.0	361.8	362.8	1219.7	2572.2	1262.6	3254.9	6089.2	4495.0	2389.5	2659.2	7138.3
AMS11	02/06/2011	38.2	75.8	73.3	98.6	124.0	88.1	54.7	132.1	379.9	251.5	336.1	604.2	501.9	270.8	226.7	700.4
AMS11	19/07/2011	9.6	18.3	15.1	20.7	50.4	35.2	12.3	40.4	117.0	82.0	75.8	132.4	129.0	88.0	46.0	153.5
AMS11	02/08/2011	7.6	14.7	12.9	15.9	18.6	23.0	12.2	37.9	128.7	133.9	75.0	151.9	180.5	97.4	44.9	156.5
AMS11	01/09/2011	36.3	71.4	83.7	79.7	97.9	46.7	22.8	69.8	144.4	55.8	168.9	299.3	274.4	150.0	110.3	332.9
AMS11	30/09/2011	11.9	23.3	29.4	32.2	38.6	25.6	15.7	38.8	73.6	57.2	102.0	194.0	190.1	97.3	64.0	190.6
AMS11	01/11/2011	12.5	24.8	5.9	20.9	26.7	33.9	17.8	59.4	156.6	95.0	133.0	300.8	317.6	198.5	80.9	279.8
AMS11	30/11/2011	5330.0	9490.0	6091.2	8979.8	8054.3	4326.0	4500.8	1.2E+04	2.8E+04	1.4E+04	3.7E+04	5.8E+04	3.9E+04	2.5E+04	2.6E+04	7.3E+04
AMS11	20/12/2011	168.8	279.7	163.3	225.5	230.9	141.6	162.4	367.4	779.2	315.8	1014.4	1460.2	908.8	450.7	672.6	1827.1
AMS11	30/01/2012	356.8	597.9	580.1	690.6	607.3	258.5	383.6	775.9	1690.2	728.2	2338.2	3219.8	1917.5	1281.3	1494.2	4016.7
AMS11	29/02/2012	1.8E+04	3.0E+04	3.0E+04	3.7E+04	3.2E+04	1.6E+04	1.9E+04	4.2E+04	9.2E+04	4.1E+04	1.3E+05	2.0E+05	1.2E+05	6.9E+04	8.4E+04	2.2E+05
AMS11	30/03/2012	86.8	137.6	140.2	165.0	152.0	62.8	88.6	197.5	385.1	187.7	620.0	847.3	539.2	292.3	404.1	1094.7
AMS11	30/04/2012	25.5	43.5	37.8	48.4	79.9	56.4	36.1	108.5	235.9	133.8	245.2	485.6	415.5	236.8	148.0	461.8
AMS11	31/05/2012	4.8	11.4	34.1	33.4	45.1	32.8	13.5	37.9	73.1	40.6	56.2	118.0	156.1	89.8	29.8	110.0

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	DahAN	BghiPER	C1 NAP	C2 NAP	C3 NAP	C4 NAP	C1 FL	C2 FL	C3 FL	C4 FL	C1 PHE/AN	C2 PHE/AN	C3 PHE/AN	C4 PHE/AN	C1 FLT/PYR	C2 FLT/PYR
AMS13	24/01/2011	12.4	26.7	7.1	12.7	10.4	14.3	16.1	93.8	182.3	152.5	90.6	150.5	131.9	62.1	47.1	159.4
AMS13	31/01/2011	46.7	96.5	130.9	113.1	57.1	32.0	59.6	146.4	366.2	233.4	417.1	738.9	775.7	437.5	263.9	722.4
AMS13	02/03/2011	14.3	29.7	26.6	30.1	40.4	42.6	19.0	98.0	228.6	180.5	149.6	434.6	552.9	293.7	78.7	261.5
AMS13	01/04/2011	15.2	33.5	33.2	38.5	50.2	55.9	27.4	114.4	258.9	186.7	198.1	512.2	567.6	321.6	120.2	404.4
AMS13	30/04/2011	7.9	21.9	24.1	27.4	24.9	27.1	14.3	113.4	185.0	103.7	57.1	99.0	114.4	64.3	25.1	119.2
AMS13	02/06/2011	1.2	10.3	8.4	14.9	32.5	36.9	6.8	61.5	109.9	132.2	71.2	129.2	133.7	69.0	42.9	168.9
AMS13	19/07/2011	0.6	1.5	3.4	5.2	12.3	17.0	2.4	15.4	39.9	50.2	20.2	44.7	58.9	72.6	7.2	39.3
AMS13	02/08/2011	0.3	0.5	1.4	IDL	3.2	9.3	1.4	12.3	19.4	20.7	6.6	13.3	21.2	8.2	1.0	8.8
AMS13	01/09/2011	0.4	0.5	2.9	2.7	8.3	5.2	2.5	5.2	11.0	8.4	10.7	23.9	34.3	16.8	3.5	16.9
AMS13	30/09/2011	0.7	2.7	4.2	3.8	12.3	9.3	3.0	11.5	22.8	24.3	20.2	55.3	86.3	42.4	10.4	41.1
AMS13	01/11/2011	7.8	15.4	14.1	17.5	22.3	20.7	11.4	30.8	76.8	44.5	73.8	115.3	114.7	82.2	45.8	133.9
AMS13	30/11/2011	26.0	54.8	34.2	52.2	78.8	66.2	34.7	112.7	362.0	220.4	274.8	633.7	687.5	377.7	172.1	574.0
AMS13	30/12/2011	17.2	32.0	22.5	36.6	47.6	41.0	27.6	80.1	165.8	87.2	152.4	287.5	247.2	161.7	85.4	252.4
AMS13	31/01/2012	13.7	25.1	IDL	10.3	22.3	26.7	24.6	69.8	141.9	111.1	152.8	281.5	238.4	170.1	84.5	250.9
AMS13	29/02/2012	197.7	337.3	218.1	297.0	471.9	298.7	262.6	759.3	1460.2	806.2	1809.2	3302.1	2694.2	1542.8	1123.9	3203.7
AMS13	30/03/2012	24.2	55.2	57.2	92.6	189.1	240.3	114.1	474.7	987.1	688.1	725.6	1680.2	1678.4	955.9	246.7	960.8
AMS13	30/04/2012	2.4	6.8	2.7	5.6	32.6	38.3	13.0	58.3	125.5	108.7	91.8	252.1	284.9	187.4	36.1	155.9
AMS13	31/05/2012	3.3	8.4	35.5	32.1	40.1	25.8	6.9	29.5	54.3	29.9	48.6	116.1	165.7	67.9	22.2	87.6

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	C3 FLT/PYR	C4 FLT/PYR	C1 BTC	C2 BTC	C3 BTC	C4 BTC	DBT	C1 DBT	C2 DBT	C3 DBT	C4 DBT	Precip amt (mm)	Temp (°C)
AMS5	02/01/2011	983.4	624.5	1175.2	574.9	418.2	397.1	55.8	210.6	327.9	183.4	109.6	5.7	
AMS5	31/01/2011	3928.8	3010.7	4025.5	2649.3	2193.1	1675.4	352.3	1775.3	3135.4	2461.6	2077.5	11.8	-11.3
AMS5	02/03/2011	3952.8	3114.2	4386.4	2761.4	2048.1	1328.2	314.9	1453.5	2733.2	2026.2	1565.5	9.4	-11.3
AMS5	01/04/2011	3945.4	3218.6	4445.1	2740.9	2111.5	1587.5	376.0	1671.0	3107.0	2342.5	1800.0	9.4	3.2
AMS5	01/05/2011	674.8	532.5	600.4	344.5	267.6	225.8	27.7	117.7	212.4	148.1	127.0	7.1	11.8
AMS5	02/06/2011	128.0	132.7	81.3	65.6	62.2	57.4	7.0	37.3	77.9	74.6	86.4	12.3	14.6
AMS5	19/07/2011	92.0	79.7	36.3	27.0	39.0	41.2	2.6	26.3	72.4	105.1	157.8	75.5	17.0
AMS5	02/08/2011	89.6	63.6	62.5	42.4	43.7	36.7	3.3	20.6	52.2	61.1	85.4	13.7	14.3
AMS5	01/09/2011	111.2	78.1	53.7	53.8	59.3	53.8	3.0	20.6	62.9	101.6	150.0	40.1	12.4
AMS5	30/09/2011	76.5	56.4	57.4	37.3	40.6	30.6	3.8	20.7	51.3	70.4	89.3	30.2	2.8
AMS5	01/11/2011	307.9	231.7	108.1	90.3	136.4	132.3	5.8	51.4	157.5	260.8	428.0	10.8	-9.3
AMS5	30/11/2011	189.0	133.4	89.7	63.0	81.5	82.0	3.9	36.7	96.9	112.4	206.4	2.4	-5.2
AMS5	30/12/2011	889.2	665.8	953.8	617.7	554.5	297.9	69.5	357.9	687.8	565.9	529.1	16.5	-16.0
AMS5	31/01/2012	2342.3	1706.3	2240.7	1340.7	1326.2	930.2	211.5	988.2	1768.9	1441.5	1229.1	11.6	-11.8
AMS5	29/02/2012	4.9E+04	3.5E+04	5.0E+04	3.3E+04	2.9E+04	1.9E+04	3274.9	1.6E+04	3.1E+04	2.7E+04	2.2E+04	0.2	-3.2
AMS5	30/03/2012	660.5	473.4	653.0	422.5	388.9	248.9	58.2	279.0	503.0	389.9	342.7	27.8	0.2
AMS5	30/04/2012	297.7	220.0	207.0	162.2	185.0	134.6	13.4	82.3	213.2	249.8	318.5	21.2	11.3
AMS5	31/05/2012	430.3	287.2	226.4	207.3	241.8	220.4	14.9	91.0	244.4	324.0	485.1	16.5	14.6

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	C3 FLT/PYR	C4 FLT/PYR	C1 BTC	C2 BTC	C3 BTC	C4 BTC	DBT	C1 DBT	C2 DBT	C3 DBT	C4 DBT	Precip amt (mm)	Temp (°C)
AMS11	02/01/2011	2662.3	1622.6	2612.1	1605.3	1315.5	864.0	191.3	921.8	1762.1	1410.3	1206.4	3.5	-17.4
AMS11	31/01/2011	6615.6	5115.4	6847.1	4296.2	3746.7	2170.3	504.0	2293.9	3760.9	2842.8	2108.3	7.1	-9.5
AMS11	02/03/2011	4440.7	3191.6	5237.6	3112.5	2612.5	1635.0	408.2	1820.6	3231.2	2304.9	1731.8	7.1	-11.3
AMS11	01/04/2011	4038.1	3375.3	4738.9	2993.8	2617.5	1615.0	334.6	1471.7	2788.2	1977.5	1544.6	4.7	3.2
AMS11	30/04/2011	9598.0	6658.1	1.1E+04	6744.2	5639.4	4020.2	720.4	3142.8	6739.9	5353.8	4491.2	1.9	12.3
AMS11	02/06/2011	941.4	760.2	824.3	563.1	542.5	377.6	61.5	322.1	631.0	542.5	538.6	9.4	14.9
AMS11	19/07/2011	222.5	168.1	173.8	113.3	95.8	65.4	15.0	73.5	145.8	141.2	175.9	62.5	17.5
AMS11	02/08/2011	254.8	183.2	164.1	119.5	115.2	83.9	12.3	56.0	127.3	160.7	213.0	23.6	14.4
AMS11	01/09/2011	455.9	333.4	389.0	272.6	267.3	163.3	27.7	124.5	257.6	264.2	302.3	27.8	12.4
AMS11	30/09/2011	255.2	186.8	232.2	168.0	144.4	114.5	16.4	85.0	182.8	186.8	207.0	27.4	2.8
AMS11	01/11/2011	417.2	317.2	280.2	198.0	208.7	167.2	16.5	101.4	254.7	301.9	412.0	10.6	-9.3
AMS11	30/11/2011	9.3E+04	6.7E+04	9.6E+04	6.2E+04	5.2E+04	3.7E+04	6244.3	3.1E+04	6.1E+04	5.1E+04	5.4E+04	0.0	-5.2
AMS11	20/12/2011	2215.7	1642.4	2438.5	1540.8	1189.1	740.6	190.2	978.6	1804.4	1365.3	1116.8	5.7	-14.6
AMS11	30/01/2012	5131.0	3666.7	5229.3	3100.5	2985.2	1923.8	515.1	2356.7	4093.4	3110.8	2503.4	7.1	-11.8
AMS11	29/02/2012	3.0E+05	2.2E+05	3.0E+05	2.0E+05	1.6E+05	1.2E+05	2.8E+04	1.3E+05	2.3E+05	1.8E+05	1.5E+05	0.1	-2.3
AMS11	30/03/2012	1393.6	982.8	1425.5	915.4	783.6	483.7	117.4	563.1	1001.7	773.5	643.0	20.0	-0.9
AMS11	30/04/2012	646.7	460.1	540.5	388.9	384.3	274.5	37.7	204.2	469.3	485.8	530.5	17.9	10.5
AMS11	31/05/2012	168.2	115.7	105.3	80.5	98.4	82.7	6.3	39.5	93.4	114.9	162.2	21.7	15.0

Table S1: Monthly precipitation concentrations (ng/L) cont'd

Site	Start date	C3 FLT/PYR	C4 FLT/PYR	C1 BTC	C2 BTC	C3 BTC	C4 BTC	DBT	C1 DBT	C2 DBT	C3 DBT	C4 DBT	Precip amt (mm)	Temp (°C)
AMS13	24/01/2011	263.6	201.0	213.9	133.5	126.3	76.5	9.5	47.2	102.0	97.2	81.4	21.2	-16.8
AMS13	31/01/2011	1067.3	690.3	974.8	682.7	671.5	494.4	66.6	332.5	713.0	703.1	703.3	4.7	-9.5
AMS13	02/03/2011	417.1	296.2	227.0	184.8	236.4	171.6	9.3	61.6	231.8	344.2	437.8	15.3	-11.3
AMS13	01/04/2011	695.7	527.2	375.4	326.2	431.5	362.1	17.8	110.5	345.3	471.6	638.4	9.4	3.2
AMS13	30/04/2011	263.6	236.9	97.6	77.3	95.6	74.2	2.5	18.3	51.5	48.3	74.9	9.0	11.8
AMS13	02/06/2011	265.4	233.2	154.7	108.6	121.6	89.3	9.3	54.1	130.5	138.3	176.3	6.1	14.6
AMS13	19/07/2011	56.9	47.6	22.2	19.0	24.2	23.4	1.5	11.9	34.5	43.5	109.1	93.8	17.3
AMS13	02/08/2011	14.9	15.2	4.9	4.1	6.1	0.3	0.1	1.5	10.9	13.7	23.8	23.6	14.4
AMS13	01/09/2011	26.5	18.6	11.8	12.1	15.4	13.6	0.6	4.3	14.0	22.0	32.5	40.1	12.4
AMS13	30/09/2011	59.9	34.5	31.4	23.9	29.4	26.3	1.5	9.6	32.9	55.6	76.5	19.8	2.8
AMS13	01/11/2011	179.9	132.8	154.8	93.6	103.3	73.3	9.7	49.5	117.4	112.2	133.1	13.2	-9.3
AMS13	30/11/2011	878.7	643.0	561.4	423.0	427.4	373.6	27.5	177.5	479.5	631.3	780.5	4.7	-5.2
AMS13	30/12/2011	349.3	269.5	294.1	202.0	194.5	154.4	16.8	95.6	228.2	244.1	270.2	13.0	-16.0
AMS13	31/01/2012	355.9	247.8	294.6	186.8	191.7	142.7	20.5	104.8	226.9	213.5	244.8	11.8	-11.8
AMS13	29/02/2012	4492.3	3165.4	4026.5	2743.6	2474.4	1614.5	271.4	1420.4	3102.2	2929.2	3122.8	1.4	1.3
AMS13	30/03/2012	1623.4	1080.7	798.8	678.4	828.2	683.2	44.9	342.5	1173.6	1661.2	2207.4	4.7	0.2
AMS13	30/04/2012	277.0	193.5	109.0	112.3	147.0	122.0	4.3	41.3	165.8	267.5	404.9	20.0	11.3
AMS13	31/05/2012	119.6	88.8	79.6	60.3	76.8	65.1	3.8	26.8	86.1	109.8	145.4	16.5	14.6

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations

Site	Start date	NAP	AL	AE	FL	PHE	AN	FLT	PY	RET	BaAN	CHR	BbFLT	BkFLT	BaPY	PER	IP
AMS5	02/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMS5	31/01/2011	8.5	0.6	0.8	0.9	2.1	0.2	0.5	0.7	0.8	0.1	0.3	0.2	3.4E-02	0.1	1.4E-02	6.4E-02
AMS5	02/03/2011	8.6	1.0	1.0	1.0	1.5	0.1	0.4	0.5	1.3	0.2	0.4	0.2	5.1E-02	0.2	1.8E-02	8.6E-02
AMS5	01/04/2011	1.8	0.2	0.7	0.8	2.2	0.2	0.2	0.3	0.1	5.7E-02	0.2	4.9E-02	7.8E-03	5.3E-02	3.2E-03	1.7E-02
AMS5	01/05/2011	1.2	0.2	0.6	1.7	11.5	0.8	1.6	1.5	97.3	0.5	0.9	0.4	0.1	0.3	2.4E-02	0.2
AMS5	02/06/2011	0.5	0.2	0.8	1.5	5.6	0.3	0.5	0.5	11.3	0.2	0.3	0.1	3.3E-02	0.1	1.5E-02	5.8E-02
AMS5	19/07/2011	NA	7.2E-02	0.6	0.5	2.2	0.2	0.2	0.3	0.5	1.2E-02	3.6E-02	1.4E-02	5.4E-05	9.4E-03	6.2E-05	3.9E-03
AMS5	02/08/2011	0.3	0.1	0.5	0.4	1.7	7.9E-02	0.1	0.2	0.2	8.9E-03	2.5E-02	9.6E-03	3.7E-05	9.3E-03	2.2E-03	1.6E-03
AMS5	01/09/2011	0.7	0.2	0.5	0.4	1.2	8.5E-02	0.1	0.2	0.2	2.0E-02	4.7E-02	3.3E-02	6.3E-03	2.1E-02	3.1E-03	1.7E-02
AMS5	30/09/2011	0.4	0.3	0.3	0.7	1.4	0.2	0.2	0.3	0.2	4.3E-02	6.7E-02	4.8E-02	1.6E-02	3.0E-02	8.8E-03	3.4E-02
AMS5	01/11/2011	3.2	1.1	0.7	0.9	1.8	0.2	0.5	0.6	0.5	0.2	0.4	0.2	4.6E-02	0.2	1.9E-02	8.1E-02
AMS5	30/11/2011	1.7	0.6	0.5	1.1	2.0	0.1	0.4	0.4	0.6	4.7E-02	9.2E-02	8.9E-02	2.7E-02	3.5E-02	6.5E-03	5.0E-02
AMS5	30/12/2011	13.4	1.3	1.1	1.3	2.5	0.2	0.6	0.6	2.1	0.1	0.3	0.2	4.1E-02	9.3E-02	1.4E-02	6.9E-02
AMS5	31/01/2012	13.8	1.9	1.4	1.8	4.6	0.5	1.3	1.7	2.9	0.6	1.0	0.3	0.1	0.6	5.9E-02	0.2
AMS5	29/02/2012	3.0	0.5	1.3	1.1	2.6	0.3	0.4	0.8	0.1	0.5	0.7	0.2	5.4E-02	0.5	4.2E-02	0.1
AMS5	30/03/2012	1.0	0.2	0.5	0.6	1.3	5.2E-02	0.2	0.3	8.8E-02	6.1E-02	0.1	5.8E-02	1.3E-02	7.0E-02	2.3E-02	2.7E-02
AMS5	30/04/2012	0.6	9.0E-02	0.4	0.6	1.6	5.9E-02	0.2	0.3	0.1	5.8E-02	0.1	5.3E-02	6.9E-03	6.7E-02	1.6E-02	2.4E-02
AMS5	31/05/2012	0.6	7.9E-02	0.5	0.7	3.9	0.2	0.3	0.5	3.1	9.5E-02	0.3	0.1	2.0E-02	9.4E-02	1.8E-02	5.3E-02

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	NAP	AL	AE	FL	PHE	AN	FLT	PY	RET	BaAN	CHR	BbFLT	BkFLT	BaPY	PER	IP
AMS11	02/01/2011	7.5	0.9	1.5	1.1	3.1	0.3	0.4	1.0	0.6	0.5	0.9	0.4	6.7E-02	0.5	7.1E-02	0.1
AMS11	31/01/2011	4.6	0.3	0.8	0.8	2.2	0.2	0.4	0.6	1.2	0.2	0.4	0.2	4.6E-02	0.2	1.9E-02	7.4E-02
AMS11	02/03/2011	4.5	0.4	0.9	0.9	3.0	0.2	0.4	0.5	1.1	0.3	0.5	0.2	5.6E-02	0.3	1.6E-02	8.4E-02
AMS11	01/04/2011	1.2	9.9E-02	0.8	0.2	1.0	0.2	5.7E-02	0.3	3.4E-02	0.3	0.4	0.1	3.7E-02	0.2	1.6E-05	3.7E-02
AMS11	30/04/2011	2.2	0.2	1.0	1.6	13.6	1.3	1.6	2.0	82.1	1.9	2.3	1.4	0.4	1.4	0.1	0.4
AMS11	02/06/2011	1.0	0.2	0.6	1.6	4.8	0.3	0.5	0.5	11.9	0.2	0.5	0.2	5.4E-02	0.2	2.0E-02	0.1
AMS11	19/07/2011	NA	4.1E-02	0.7	0.5	2.9	0.2	0.2	0.4	0.3	5.2E-02	9.9E-02	2.5E-02	5.2E-03	4.4E-02	7.5E-03	1.0E-02
AMS11	02/08/2011	0.8	0.1	0.9	0.7	2.4	0.1	0.1	0.2	0.2	2.5E-02	8.2E-02	3.7E-02	7.2E-03	2.2E-02	5.5E-03	1.1E-02
AMS11	01/09/2011	0.4	0.1	0.7	0.7	2.4	0.3	0.1	0.3	0.2	7.1E-02	9.6E-02	2.9E-02	8.4E-03	4.8E-02	1.2E-02	1.6E-02
AMS11	30/09/2011	1.0	0.1	0.6	0.6	1.5	0.2	0.1	0.3	0.2	0.3	0.5	0.1	3.5E-02	0.3	2.0E-02	5.8E-02
AMS11	01/11/2011	3.5	0.4	0.7	0.8	2.6	0.7	0.5	1.5	0.7	1.4	2.0	0.6	0.2	1.4	0.1	0.4
AMS11	30/11/2011	2.3	0.4	2.4	1.3	3.7	0.5	0.5	1.3	0.7	1.1	1.8	0.4	0.1	1.1	8.7E-02	0.3
AMS11	20/12/2011	10.6	0.5	1.4	1.1	2.6	0.3	0.4	0.8	1.1	0.6	1.1	0.3	9.0E-02	0.7	4.8E-02	0.2
AMS11	30/01/2012	10.1	0.4	1.9	1.5	4.9	0.8	0.9	2.3	1.9	2.3	3.3	1.0	0.3	2.7	0.2	0.7
AMS11	29/02/2012	1.4	0.1	1.1	0.9	2.2	0.1	0.2	0.4	0.1	0.3	0.5	0.1	3.6E-02	0.4	3.8E-02	7.9E-02
AMS11	30/03/2012	1.0	6.3E-02	0.7	0.8	2.4	0.2	0.2	0.4	6.9E-02	0.2	0.4	0.1	3.8E-02	0.3	5.6E-02	6.9E-02
AMS11	30/04/2012	0.5	3.0E-02	0.6	0.8	2.6	9.3E-02	0.1	0.2	7.6E-02	0.1	0.2	5.9E-02	1.4E-02	0.1	2.4E-02	3.5E-02
AMS11	31/05/2012	0.6	1.6E-02	0.3	0.8	3.5	0.1	0.3	0.4	4.3	0.2	0.4	0.2	4.3E-02	0.2	2.7E-02	9.5E-02

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	NAP	AL	AE	FL	PHE	AN	FLT	PY	RET	BaAN	CHR	BbFLT	BkFLT	BaPY	PER	IP
AMS13	24/01/2011	2.2	0.7	1.3	1.3	2.1	0.1	0.2	0.2	1.8	5.5E-02	0.1	0.1	2.2E-02	4.3E-02	3.7E-04	3.9E-02
AMS13	31/01/2011	3.5	0.2	0.5	0.6	1.2	2.8E-02	0.2	0.2	0.6	5.4E-02	0.1	8.4E-02	2.8E-02	3.3E-02	2.8E-03	5.0E-02
AMS13	02/03/2011	1.2	0.2	0.4	0.6	1.6	5.3E-02	0.3	0.3	1.7	7.1E-02	0.2	0.1	3.1E-02	6.4E-02	7.8E-03	4.7E-02
AMS13	01/04/2011	0.7	0.1	1.2	0.6	1.4	2.4E-02	5.1E-02	5.0E-02	7.4E-02	2.1E-03	1.7E-02	7.5E-03	5.0E-03	2.3E-03	9.9E-04	2.3E-03
AMS13	30/04/2011	3.4	0.3	1.0	5.2	14.3	0.5	2.0	1.3	141.3	0.6	1.5	0.8	8.9E-02	0.5	3.6E-02	0.6
AMS13	02/06/2011	1.2	0.2	0.3	1.9	5.3	0.2	0.5	0.3	20.5	0.1	0.4	0.3	3.2E-02	9.9E-02	1.2E-02	0.1
AMS13	19/07/2011	NA	1.5E-02	5.8E-02	0.2	0.7	2.9E-02	3.7E-02	4.9E-02	0.5	NA	NA	NA	7.9E-06	NA	1.1E-03	NA
AMS13	02/08/2011	NA	5.7E-03	6.2E-02	0.2	0.5	9.1E-03	2.9E-02	3.8E-02	0.2	NA	NA	NA	2.7E-05	NA	1.0E-03	NA
AMS13	01/09/2011	NA	0.2	8.1E-02	0.2	0.4	3.6E-02	2.9E-02	4.1E-02	0.2	8.4E-03	2.9E-02	6.0E-02	4.2E-03	8.4E-03	9.3E-04	2.8E-02
AMS13	30/09/2011	1.4E-02	3.4E-02	0.2	0.3	0.5	2.2E-02	3.1E-02	4.0E-02	0.2	1.7E-02	2.9E-02	7.9E-03	2.9E-03	1.5E-02	2.2E-03	8.4E-03
AMS13	01/11/2011	1.7	0.3	0.4	0.4	0.6	2.7E-02	0.1	0.1	0.3	2.4E-02	6.3E-02	5.7E-02	1.9E-02	2.0E-02	7.3E-03	3.4E-02
AMS13	30/11/2011	1.4	0.3	0.6	0.7	1.0	4.9E-02	0.2	0.2	0.4	4.5E-02	8.9E-02	6.4E-02	1.7E-02	4.2E-02	3.0E-03	3.2E-02
AMS13	30/12/2011	8.8	0.4	0.4	0.6	1.0	4.3E-02	0.3	0.2	1.7	5.8E-02	0.1	0.1	4.0E-02	5.7E-02	4.1E-03	4.9E-02
AMS13	31/01/2012	5.4	0.2	0.9	0.7	1.4	9.5E-02	0.3	0.3	0.9	0.2	0.3	0.1	3.7E-02	0.2	1.9E-02	6.7E-02
AMS13	29/02/2012	0.7	4.6E-02	0.7	0.7	1.2	1.7E-02	6.0E-02	5.6E-02	4.3E-02	2.3E-02	5.4E-02	1.1E-02	2.0E-04	2.9E-02	7.3E-03	3.5E-03
AMS13	30/03/2012	1.0	3.2E-02	0.4	0.4	0.8	1.1E-02	3.8E-02	4.6E-02	2.9E-02	1.2E-02	2.6E-02	1.4E-02	9.5E-03	1.9E-02	6.6E-03	9.4E-03
AMS13	30/04/2012	0.2	7.4E-03	7.7E-02	0.3	0.9	3.8E-02	4.3E-02	8.0E-02	3.5E-02	3.8E-02	6.8E-02	2.1E-02	4.3E-03	5.2E-02	8.1E-03	1.3E-02
AMS13	31/05/2012	0.2	1.2E-02	0.2	0.5	2.1	2.2E-02	0.1	9.1E-02	2.5	1.4E-02	5.6E-02	5.6E-02	1.5E-02	7.6E-03	0.0E+00	2.6E-02

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	DahAN	BghiPER	C1 NAP	C2 NAP	C3 NAP	C4 NAP	C1 FL	C2 FL	C3 FL	C4 FL	C1 PHE/AN	C2 PHE/AN	C3 PHE/AN	C4 PHE/AN	C1 FLT/PYR	C2 FLT/PYR
AMS5	02/01/2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AMS5	31/01/2011	3.3E-02	0.1	11.8	14.7	11.9	6.2	1.8	3.0	2.9	1.5	2.1	2.5	2.4	1.6	0.5	1.1
AMS5	02/03/2011	5.7E-02	0.2	10.1	12.1	15.3	7.2	1.8	3.0	2.8	1.5	1.9	2.5	2.0	1.3	0.5	1.1
AMS5	01/04/2011	1.5E-02	5.6E-02	6.0	9.3	17.2	10.1	2.3	3.9	3.6	1.9	2.7	2.8	1.6	0.6	0.2	0.5
AMS5	01/05/2011	8.3E-02	0.2	2.1	4.9	14.6	14.4	5.0	10.0	9.9	7.3	10.2	19.0	20.3	42.1	1.3	3.1
AMS5	02/06/2011	3.8E-02	0.1	1.4	4.6	18.5	22.3	4.4	9.2	8.2	4.8	5.4	6.7	4.7	6.3	0.5	1.2
AMS5	19/07/2011	2.1E-03	1.9E-02	0	3.2	12.3	15.5	2.6	7.1	6.7	4.4	2.5	3.1	2.0	1.0	0.1	0.3
AMS5	02/08/2011	2.6E-03	1.5E-02	1.5	4.9	11.3	12.3	2.6	6.8	6.3	3.6	2.2	2.5	1.6	0.7	8.8E-02	0.2
AMS5	01/09/2011	5.8E-03	4.2E-02	1.1	3.0	10.5	11.7	1.6	4.1	3.6	2.3	1.4	1.8	1.3	0.6	8.5E-02	0.2
AMS5	30/09/2011	6.3E-03	5.0E-02	0.8	2.7	8.6	9.1	1.5	3.3	3.0	1.8	1.5	1.9	1.5	0.7	0.1	0.3
AMS5	01/11/2011	7.2E-02	0.2	5.7	9.8	14.7	7.5	1.4	2.5	2.5	1.6	1.8	2.7	2.0	1.3	0.5	1.2
AMS5	30/11/2011	9.4E-03	5.9E-02	2.2	6.8	11.8	5.9	1.5	2.5	2.2	1.3	1.3	1.2	0.7	0.5	0.1	0.3
AMS5	30/12/2011	2.6E-02	0.1	16.6	17.1	18.5	8.1	1.9	2.9	2.7	1.8	2.1	2.8	2.2	2.1	0.4	0.9
AMS5	31/01/2012	0.2	0.5	24.5	24.5	22.9	9.0	3.0	4.2	5.1	2.7	5.2	6.4	3.8	3.5	1.6	3.8
AMS5	29/02/2012	0.2	0.4	7.4	14.7	27.7	13.2	2.5	4.3	3.7	1.8	3.3	4.2	2.5	1.1	1.1	2.9
AMS5	30/03/2012	2.6E-02	9.0E-02	3.6	5.6	20.5	15.1	2.0	4.9	5.3	3.3	2.4	4.3	3.2	1.6	0.4	1.2
AMS5	30/04/2012	2.4E-02	7.8E-02	1.4	2.5	14.5	14.5	2.5	6.6	5.6	3.6	2.5	3.9	2.6	1.1	0.3	0.8
AMS5	31/05/2012	3.5E-02	0.1	1.7	3.3	11.9	13.9	5.0	11.3	9.1	5.3	5.1	6.5	3.8	3.5	0.5	1.4

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	DahAN	BghiPER	C1 NAP	C2 NAP	C3 NAP	C4 NAP	C1 FL	C2 FL	C3 FL	C4 FL	C1 PHE/AN	C2 PHE/AN	C3 PHE/AN	C4 PHE/AN	C1 FLT/PYR	C2 FLT/PYR
AMS11	02/01/2011	0.2	0.3	12.0	14.0	32.8	19.8	5.0	8.1	6.3	1.8	3.7	3.8	3.6	1.7	1.0	2.8
AMS11	31/01/2011	5.9E-02	0.2	6.2	10.5	15.4	8.4	2.5	4.1	3.4	1.5	2.5	2.4	2.0	1.4	0.6	1.1
AMS11	02/03/2011	7.6E-02	0.2	6.2	8.2	16.1	10.8	2.8	5.7	5.8	2.9	3.7	4.3	3.1	1.5	0.6	1.7
AMS11	01/04/2011	6.7E-02	0.1	5.8	13.9	18.9	10.0	1.9	3.8	2.9	1.3	1.4	1.6	1.0	0.3	0.5	1.3
AMS11	30/04/2011	0.5	1.2	3.9	7.9	21.7	21.0	8.5	18.3	16.4	10.6	11.8	21.0	18.2	29.0	2.4	6.1
AMS11	02/06/2011	6.9E-02	0.2	3.3	3.8	15.2	16.9	5.1	11.4	10.3	6.4	4.7	6.1	4.5	6.0	0.6	1.4
AMS11	19/07/2011	1.6E-02	3.8E-02	0	1.9	16.0	21.8	5.5	14.9	15.8	9.8	4.2	5.4	3.6	1.4	0.3	0.5
AMS11	02/08/2011	1.5E-02	2.1E-02	2.4	5.9	19.2	20.7	5.4	13.9	12.2	6.8	3.4	4.1	2.5	0.8	0.2	0.4
AMS11	01/09/2011	2.2E-02	3.6E-02	0.5	3.1	17.3	19.9	4.6	10.5	8.9	4.7	3.5	3.7	1.9	0.7	0.3	0.3
AMS11	30/09/2011	0.1	0.2	1.8	3.4	15.0	13.1	2.8	5.9	5.2	2.9	2.4	2.9	1.8	0.7	0.7	1.7
AMS11	01/11/2011	0.6	1.0	5.1	9.7	16.8	9.0	2.7	5.0	6.7	3.5	5.3	7.6	5.1	3.0	2.6	6.9
AMS11	30/11/2011	0.4	0.8	4.6	11.3	32.4	20.9	5.0	8.9	7.3	3.2	5.1	5.9	3.1	1.6	1.9	4.9
AMS11	20/12/2011	0.3	0.5	11.2	9.9	17.1	11.0	3.1	4.5	4.1	1.7	3.2	3.4	1.8	1.2	1.1	2.7
AMS11	30/01/2012	1.0	2.0	11.4	14.0	24.8	16.2	5.5	9.1	9.4	4.1	8.9	11.0	6.5	4.5	4.2	11.4
AMS11	29/02/2012	0.1	0.3	5.7	8.6	27.7	17.6	3.7	7.2	6.0	2.9	3.3	4.0	2.2	0.9	0.7	2.0
AMS11	30/03/2012	0.1	0.2	3.3	6.1	23.4	20.7	4.4	8.7	7.6	4.0	4.6	6.3	3.8	1.8	0.8	2.3
AMS11	30/04/2012	5.2E-02	0.1	1.2	2.3	15.8	22.3	5.1	11.4	9.2	5.4	4.2	5.6	3.1	1.1	0.4	1.0
AMS11	31/05/2012	7.3E-02	0.2	0.9	2.5	9.9	10.3	4.6	10.0	8.3	4.9	4.2	5.7	3.4	4.1	0.6	1.6

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	DahAN	BghiPER	C1 NAP	C2 NAP	C3 NAP	C4 NAP	C1 FL	C2 FL	C3 FL	C4 FL	C1 PHE/AN	C2 PHE/AN	C3 PHE/AN	C4 PHE/AN	C1 FLT/PYR	C2 FLT/PYR
AMS13	24/01/2011	9.8E-03	5.5E-02	5.4	17.8	25.1	12.5	2.5	4.2	2.9	1.3	2.0	1.5	1.2	1.3	0.2	0.3
AMS13	31/01/2011	6.1E-03	5.2E-02	5.7	7.4	7.0	4.0	1.1	1.8	1.3	0.4	0.8	0.7	0.6	0.7	0.1	0.3
AMS13	02/03/2011	1.3E-02	5.7E-02	2.2	4.7	9.7	6.0	1.2	2.2	2.1	1.0	1.6	2.0	2.0	1.5	0.2	0.4
AMS13	01/04/2011	NA	3.7E-03	3.3	11.3	22.3	14.5	2.1	3.6	2.9	1.3	1.7	2.0	1.4	0.6	6.6E-02	0.2
AMS13	30/04/2011	0.1	0.4	2.7	6.7	25.7	21.8	8.3	13.8	11.3	8.2	11.4	22.7	23.1	64.0	1.5	3.8
AMS13	02/06/2011	1.7E-02	9.2E-02	0.9	2.4	7.5	8.6	3.7	6.8	5.4	3.6	3.5	5.0	5.1	9.9	0.4	1.3
AMS13	19/07/2011	NA	NA	NA	NA	1.5	2.1	0.8	2.0	1.7	1.1	0.5	0.6	0.3	0.3	4.0E-03	NA
AMS13	02/08/2011	NA	NA	NA	NA	2.1	2.4	1.0	2.3	2.0	1.0	0.8	1.0	0.5	0.3	7.5E-03	NA
AMS13	01/09/2011	2.6E-03	2.5E-02	NA	0.9	1.5	1.7	0.6	1.4	1.1	0.6	0.2	0.3	0.2	0.2	6.7E-03	3.9E-03
AMS13	30/09/2011	3.7E-03	2.0E-02	5.8E-02	0.7	4.9	5.5	1.0	2.1	1.5	0.8	0.5	0.7	0.4	0.3	4.0E-02	9.0E-02
AMS13	01/11/2011	4.3E-03	3.3E-02	2.0	4.1	7.0	4.2	0.8	1.5	1.4	0.8	0.6	1.0	0.9	0.7	0.1	0.3
AMS13	30/11/2011	1.0E-02	4.4E-02	3.1	6.2	9.4	4.6	1.0	1.5	1.0	0.5	0.6	0.5	0.3	0.3	9.9E-02	0.2
AMS13	30/12/2011	1.2E-02	5.5E-02	6.2	6.0	6.3	2.8	0.7	1.3	0.8	0.5	0.8	1.0	0.8	1.0	0.1	0.3
AMS13	31/01/2012	6.4E-02	0.2	7.7	11.5	14.0	6.6	1.6	2.6	2.3	1.2	1.7	2.5	1.7	1.5	0.4	1.2
AMS13	29/02/2012	8.1E-03	2.2E-02	1.6	3.8	17.4	10.3	2.2	3.7	2.4	1.0	1.2	1.2	0.6	0.3	7.3E-02	0.4
AMS13	30/03/2012	5.3E-03	1.2E-02	2.7	4.2	10.3	6.3	1.4	2.7	1.8	0.9	1.0	1.3	0.7	0.5	8.2E-02	0.3
AMS13	30/04/2012	1.7E-02	4.0E-02	0.6	0.9	2.2	2.4	1.2	2.6	1.7	0.9	1.1	1.1	0.6	0.3	0.1	0.3
AMS13	31/05/2012	5.3E-03	2.1E-02	0.2	0.9	6.7	6.9	2.7	6.4	4.3	2.6	2.0	2.4	1.3	2.1	8.2E-02	0.3

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	C3 FLT/PYR	C4 FLT/PYR	C1 BTC	C2 BTC	C3 BTC	C4 BTC	DBT	C1 DBT	C2 DBT	C3 DBT	C4 DBT
AMS5	02/01/2011	-	-	-	-	-	-	-	-	-	-	-
AMS5	31/01/2011	1.5	0.9	0.8	0.6	0.7	0.5	0.1	1.3	3.9	5.6	7.5
AMS5	02/03/2011	1.4	0.7	1.1	0.8	0.6	0.4	0.4	0.7	0.2	NA	NA
AMS5	01/04/2011	0.7	0.4	0.4	0.3	0.3	0.2	NA	NA	NA	NA	NA
AMS5	01/05/2011	3.8	1.9	2.0	2.2	2.3	1.4	2.6	8.8	11.1	5.9	4.3
AMS5	02/06/2011	1.4	0.8	0.9	0.9	0.9	0.7	1.0	5.6	7.5	4.6	3.4
AMS5	19/07/2011	0.4	0.2	0.1	0.1	0.2	0.2	0.4	2.7	3.9	2.6	2.0
AMS5	02/08/2011	0.3	0.2	0.1	0.1	0.2	0.1	0.4	2.3	3.2	2.0	1.7
AMS5	01/09/2011	0.3	0.2	0.2	0.2	0.2	0.2	0.3	1.4	2.1	1.5	1.2
AMS5	30/09/2011	0.4	0.3	0.2	0.2	0.2	0.2	0.4	1.5	2.2	1.5	1.3
AMS5	01/11/2011	1.8	1.2	1.3	0.9	0.8	0.6	0.3	1.6	2.6	2.1	2.1
AMS5	30/11/2011	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.8	0.8	0.3	0.1
AMS5	30/12/2011	1.1	0.7	0.6	0.4	0.4	0.4	0.3	1.3	1.7	2.1	2.3
AMS5	31/01/2012	4.5	3.0	4.3	2.9	2.4	1.6	1.0	3.3	4.4	3.0	2.6
AMS5	29/02/2012	3.8	2.6	3.4	2.5	2.2	1.4	0.8	3.3	4.5	3.0	2.3
AMS5	30/03/2012	1.9	1.3	0.8	0.8	1.0	0.8	0.2	1.7	3.7	3.6	3.7
AMS5	30/04/2012	1.2	0.8	0.7	0.6	0.7	0.5	0.2	2.1	4.1	3.4	3.1
AMS5	31/05/2012	1.8	1.2	1.1	0.9	1.0	0.8	1.3	5.9	7.8	5.0	4.1

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	C3 FLT/PYR	C4 FLT/PYR	C1 BTC	C2 BTC	C3 BTC	C4 BTC	DBT	C1 DBT	C2 DBT	C3 DBT	C4 DBT
AMS11	02/01/2011	3.5	2.3	3.3	1.9	1.6	1.1	1.5	5.0	5.9	3.7	2.9
AMS11	31/01/2011	1.4	0.8	1.2	0.7	0.6	0.4	1.1	3.7	4.5	2.6	2.2
AMS11	02/03/2011	2.6	1.4	1.8	1.2	1.1	0.8	1.6	9.8	14.3	11.3	10.0
AMS11	01/04/2011	1.7	1.2	1.4	1.0	0.9	0.7	NA	NA	NA	NA	NA
AMS11	30/04/2011	7.6	5.2	7.7	4.6	4.8	2.8	1.7	8.0	12.7	9.2	9.5
AMS11	02/06/2011	1.8	1.1	1.3	1.2	1.1	0.8	0.7	4.1	6.6	4.5	3.4
AMS11	19/07/2011	0.4	0.3	0.7	0.2	0.2	0.2	0.6	4.2	6.9	5.1	4.2
AMS11	02/08/2011	1.1	0.2	0.3	0.3	0.2	0.2	0.7	3.6	5.5	3.8	3.0
AMS11	01/09/2011	0.6	0.3	0.4	0.2	0.2	0.1	0.8	4.0	5.4	3.2	2.3
AMS11	30/09/2011	2.2	1.6	1.8	1.2	1.1	0.7	0.6	2.8	4.3	3.1	2.3
AMS11	01/11/2011	9.3	6.6	7.7	5.4	4.8	3.1	1.4	6.1	10.1	8.2	7.4
AMS11	30/11/2011	6.0	4.2	5.8	3.8	2.8	1.8	1.1	5.9	8.3	5.6	4.1
AMS11	20/12/2011	3.0	2.1	3.4	2.0	1.5	1.0	0.9	3.7	4.9	3.1	2.3
AMS11	30/01/2012	13.7	10.1	14.9	9.4	8.2	5.3	2.3	10.6	15.4	10.8	8.5
AMS11	29/02/2012	2.7	1.9	2.2	1.5	1.5	1.0	0.7	3.7	5.5	3.8	3.0
AMS11	30/03/2012	3.3	2.4	2.4	2.0	1.9	1.3	1.0	5.3	8.3	6.3	5.4
AMS11	30/04/2012	1.3	0.9	1.0	0.7	0.8	0.6	0.7	4.8	7.4	5.3	4.1
AMS11	31/05/2012	2.1	1.4	1.6	1.3	1.2	0.9	0.8	4.3	6.5	4.9	4.1

Table S2: Monthly average air concentrations (ng/m³) based on 4-5 weekly air concentrations cont'd

Site	Start date	C3 FLT/PYR	C4 FLT/PYR	C1 BTC	C2 BTC	C3 BTC	C4 BTC	DBT	C1 DBT	C2 DBT	C3 DBT	C4 DBT
AMS13	24/01/2011	0.3	0.1	0.3	0.2	8.7E-02	0.1	0.6	2.2	2.6	1.2	0.8
AMS13	31/01/2011	0.3	0.1	0.2	0.1	0.1	0.1	NA	NA	NA	NA	NA
AMS13	02/03/2011	0.7	0.4	0.3	0.3	0.3	0.3	NA	NA	NA	NA	NA
AMS13	01/04/2011	0.5	0.3	0.1	0.1	0.2	0.2	NA	NA	NA	NA	NA
AMS13	30/04/2011	5.3	2.5	3.2	4.2	4.6	2.5	0.4	2.4	6.3	4.3	3.3
AMS13	02/06/2011	2.0	1.0	0.8	1.2	1.1	0.7	0.2	1.3	2.7	1.7	1.4
AMS13	19/07/2011	NA	NA	NA	NA	2.0E-02	3.2E-02	5.9E-02	0.5	0.8	0.5	0.4
AMS13	02/08/2011	NA	NA	NA	NA	NA	3.2E-02	6.6E-02	0.4	0.8	0.4	0.5
AMS13	01/09/2011	4.0E-02	1.4E-02	1.6E-02	5.3E-02	3.7E-02	6.5E-02	4.4E-02	0.2	0.3	0.2	0.2
AMS13	30/09/2011	0.2	0.1	9.3E-02	5.8E-02	6.9E-02	0.1	8.0E-02	0.4	0.8	0.6	0.6
AMS13	01/11/2011	0.5	0.3	0.1	0.1	0.2	0.2	5.3E-02	0.4	0.9	1.0	1.2
AMS13	30/11/2011	0.2	0.1	0.2	0.1	1.0E-01	8.4E-02	0.1	0.6	0.8	0.4	0.2
AMS13	30/12/2011	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.4	0.6	0.4	0.4
AMS13	31/01/2012	1.6	1.0	1.2	0.9	0.8	0.7	0.4	1.6	2.4	1.9	2.0
AMS13	29/02/2012	0.3	0.3	0.3	0.3	0.4	0.2	0.2	1.5	2.3	1.6	1.5
AMS13	30/03/2012	0.4	0.3	0.2	0.2	0.2	0.2	0.2	1.1	1.7	1.2	1.1
AMS13	30/04/2012	0.4	0.2	0.3	0.3	0.2	0.2	0.4	1.6	2.0	1.0	0.8
AMS13	31/05/2012	0.5	0.1	0.2	0.3	0.3	0.2	0.1	1.3	2.6	1.7	1.3

Table S3: Descriptive statistics of the total scavenging ratios (W_i) for snow and rain at the oil sands sites. (G) and (P) denote predominantly gas-phase and particulate-phase PACs, respectively

PACs	# of samples		Median		Mean		Min		Max	
	Snow	Rain	Snow	Rain	Snow	Rain	Snow	Rain	Snow	Rain
Naphthalene (G)	19	15	4.7X10 ⁴	3.6X10 ⁴	4.6X10 ⁵	5.3X10 ⁵	1.7X10 ³	1.2X10 ²	2.5X10 ⁶	4.7X10 ⁶
Acenaphthylene (G)	19	27	6.8X10 ³	3.5X10 ²	9.9X10 ³	7.8X10 ³	7.2X10 ²	33.6	2.9X10 ⁴	5.3X10 ⁴
Acenaphthene (G)	19	28	6.1X10 ³	3.5X10 ³	1.4X10 ⁴	9.1X10 ³	4.8X10 ²	1.9X10 ³	8.2X10 ⁴	8.9X10 ⁴
Fluorene (G)	19	28	3.2X10 ⁴	5.8X10 ³	7.8X10 ⁴	1.0X10 ⁴	3.2X10 ³	1.5X10 ³	5.5X10 ⁵	1.1X10 ⁵
Phenanthrene (G)	19	28	1.1X10 ⁵	1.5X10 ⁴	2.5X10 ⁵	2.2X10 ⁴	1.6X10 ⁴	3.2X10 ³	9.1X10 ⁵	1.1X10 ⁵
Anthracene (G)	18	28	4.1X10 ⁵	3.5X10 ⁴	1.4X10 ⁶	8.5X10 ⁴	5.1X10 ⁴	1.7X10 ³	7.8X10 ⁶	5.5X10 ⁵
Fluoranthene	18	27	2.5X10 ⁵	3.8X10 ⁴	4.5X10 ⁵	6.3X10 ⁴	7.1X10 ⁴	8.4X10 ³	1.6X10 ⁶	2.6X10 ⁵
Pyrene	17	24	3.4X10 ⁵	7.1X10 ⁴	1.1X10 ⁶	1.2X10 ⁵	1.1X10 ⁵	1.8X10 ⁴	4.7X10 ⁶	5.8X10 ⁵
Retene	18	27	6.6X10 ⁴	2.1X10 ⁴	1.2X10 ⁵	4.5X10 ⁴	6.7X10 ⁴	17.0	5.8X10 ⁵	2.0X10 ⁵
Benz[a]anthracene (P)	17	16	8.2X10 ⁵	2.1X10 ⁵	2.9X10 ⁶	2.8X10 ⁵	2.5X10 ⁵	2.2X10 ⁴	1.2X10 ⁷	9.8X10 ⁵
Chrysene (P)	17	20	6.0X10 ⁵	1.7X10 ⁵	2.3X10 ⁶	2.8X10 ⁵	1.9X10 ⁵	2.0X10 ⁴	8.4X10 ⁶	1.3X10 ⁶
Benzo[b]fluoranthene (P)	18	21	5.3X10 ⁵	1.2X10 ⁵	1.6X10 ⁶	1.5X10 ⁵	1.2X10 ⁵	1.3X10 ⁴	7.3X10 ⁶	6.4X10 ⁵
Benzo[k]fluoranthene (P)	19	22	5.1X10 ⁵	4.8X10 ⁴	1.5X10 ⁶	1.3X10 ⁵	9.3X10 ⁴	3.9X10 ³	6.0X10 ⁶	9.0X10 ⁵
Benzo[a]pyrene (P)	18	21	9.8X10 ⁵	1.9X10 ⁵	4.3X10 ⁶	3.8X10 ⁵	1.9X10 ⁵	2.3X10 ⁴	1.9X10 ⁷	1.9X10 ⁶
Perylene	16	20	6.4X10 ⁵	2.1X10 ⁵	2.7X10 ⁶	3.8X10 ⁵	1.8X10 ⁵	3.0X10 ⁴	1.3X10 ⁷	1.5X10 ⁶
Indeno[1,2,3-cd]pyrene (P)	17	21	5.3X10 ⁵	9.1X10 ⁴	1.8X10 ⁶	1.7X10 ⁵	1.2X10 ⁵	1.0X10 ⁴	6.8X10 ⁶	8.0X10 ⁵
Dibenz[a,h]anthracene (P)	18	20	1.1X10 ⁶	1.9X10 ⁵	3.5X10 ⁶	3.7X10 ⁵	2.2X10 ⁵	1.1X10 ⁴	1.3X10 ⁷	1.7X10 ⁶
Benzo[ghi]perylene (P)	17	20	5.7X10 ⁵	1.5X10 ⁵	2.6X10 ⁶	2.2X10 ⁵	1.6X10 ⁵	2.1X10 ⁴	1.0X10 ⁷	9.1X10 ⁵
C1 Naphthalenes (G)	19	16	1.6X10 ⁴	6.2X10 ³	2.2X10 ⁴	1.9X10 ⁴	1.3X10 ³	9.5X10 ²	6.7X10 ⁴	1.8X10 ⁵
C2 Naphthalenes (G)	19	23	1.8X10 ⁴	5.0X10 ³	1.9X10 ⁴	1.0X10 ⁴	7.2X10 ²	7.5X10 ²	4.9X10 ⁴	7.4X10 ⁴
C3 Naphthalenes (G)	19	28	1.1X10 ⁴	2.9X10 ³	1.3X10 ⁴	4.8X10 ³	4.1X10 ²	9.7X10 ²	3.8X10 ⁴	2.9X10 ⁴
C4 Naphthalenes (G)	19	28	1.2X10 ⁴	3.1X10 ³	1.2X10 ⁴	4.5X10 ³	1.1X10 ³	7.2X10 ²	3.8X10 ⁴	1.7X10 ⁴
C1 Fluorenes (G)	19	28	5.2X10 ⁴	4.3X10 ³	5.8X10 ⁴	8.5X10 ³	6.5X10 ³	1.2X10 ³	1.5X10 ⁵	4.3X10 ⁴
C2 Fluorenes (G)	19	28	8.2X10 ⁴	6.6X10 ³	9.1X10 ⁴	1.4X10 ⁴	2.1X10 ⁴	2.3X10 ³	2.3X10 ⁵	7.4X10 ⁴
C3 Fluorenes (G)	19	28	1.5X10 ⁵	1.6X10 ⁴	2.3X10 ⁵	3.6X10 ⁴	4.0X10 ⁴	4.6X10 ³	6.4X10 ⁵	2.5X10 ⁵
C4 Fluorenes (G)	19	28	1.5X10 ⁵	2.1X10 ⁴	2.2X10 ⁵	3.8X10 ⁴	3.0X10 ⁴	5.6X10 ³	7.8X10 ⁵	2.4X10 ⁵
C1 Phenanthrene/Anthracene (G)	19	27	2.2X10 ⁵	2.5X10 ⁴	3.8X10 ⁵	5.4X10 ⁴	4.5X10 ⁴	5.9X10 ³	9.9X10 ⁵	3.6X10 ⁵
C2 Phenanthrene/Anthracene	19	25	2.5X10 ⁵	4.3X10 ⁴	4.6X10 ⁵	8.3X10 ⁴	9.8X10 ⁴	9.9X10 ³	1.4X10 ⁶	6.5X10 ⁵
C3 Phenanthrene/Anthracene	19	23	2.9X10 ⁵	6.6X10 ⁴	4.6X10 ⁵	8.9X10 ⁴	8.6X10 ⁴	9.9X10 ³	1.2X10 ⁶	2.5X10 ⁵
C4 Phenanthrene/Anthracene	18	28	3.1X10 ⁵	7.7X10 ⁴	4.8X10 ⁵	1.1X10 ⁵	4.6X10 ⁴	2.2X10 ³	2.1X10 ⁶	6.4X10 ⁵
C1 Fluoranthenes/Pyrene	18	23	5.6X10 ⁵	1.0X10 ⁵	1.3X10 ⁶	1.9X10 ⁵	1.9X10 ⁵	2.0X10 ⁴	5.5X10 ⁶	9.1X10 ⁵
C2 Fluoranthenes/Pyrene (P)	16	19	6.5X10 ⁵	1.5X10 ⁵	1.4X10 ⁶	2.0X10 ⁵	2.0X10 ⁵	2.5X10 ⁴	5.3X10 ⁶	8.8X10 ⁵
C3 Fluoranthenes/Pyrene (P)	18	20	7.7X10 ⁵	1.8X10 ⁵	1.4X10 ⁶	2.1X10 ⁵	2.3X10 ⁵	2.8X10 ⁴	4.7X10 ⁶	9.6X10 ⁵
C4 Fluoranthenes/Pyrene (P)	17	19	8.2X10 ⁵	2.3X10 ⁵	1.9X10 ⁶	2.6X10 ⁵	2.3X10 ⁵	3.0X10 ⁴	8.4X10 ⁶	9.8X10 ⁵
C1 Benz(a)anthracenes/Chrysene/Triphenylenes (P)	17	19	8.0X10 ⁵	1.8X10 ⁵	2.1X10 ⁶	3.0X10 ⁵	2.4X10 ⁵	2.3X10 ⁴	1.0X10 ⁷	1.4X10 ⁶
C2 Benz(a)anthracenes/Chrysene/Triphenylenes (P)	18	21	1.0X10 ⁶	1.7X10 ⁵	1.9X10 ⁶	3.0X10 ⁵	2.1X10 ⁵	2.3X10 ⁴	8.7X10 ⁶	1.9X10 ⁶
C3 Benz(a)anthracenes/Chrysene/Triphenylenes (P)	18	20	9.7X10 ⁵	2.3X10 ⁵	1.7X10 ⁶	2.2X10 ⁵	2.3X10 ⁵	2.7X10 ⁴	6.2X10 ⁶	8.9X10 ⁵
C4 Benz(a)anthracenes/Chrysene/Triphenylenes (P)	19	22	8.3X10 ⁵	2.3X10 ⁵	1.5X10 ⁶	3.6X10 ⁵	2.1X10 ⁵	3.3X10 ⁴	5.4X10 ⁶	2.7X10 ⁶
Dibenzothiophene (G)	15	28	2.2X10 ⁵	1.7X10 ⁴	4.2X10 ⁵	4.7X10 ⁴	1.5X10 ⁴	9.7X10 ²	3.1X10 ⁶	4.2X10 ⁵
C1 Dibenzothiophenes (G)	15	28	2.2X10 ⁵	2.0X10 ⁴	4.3X10 ⁵	5.0X10 ⁴	2.1X10 ⁴	2.1X10 ³	2.1X10 ⁶	3.9X10 ⁵
C2 Dibenzothiophenes (G)	15	28	3.0X10 ⁵	3.2X10 ⁴	1.1X10 ⁶	7.9X10 ⁴	4.0X10 ⁴	1.0X10 ⁴	1.1X10 ⁷	6.2X10 ⁵
C3 Dibenzothiophenes	14	27	2.9X10 ⁵	6.6X10 ⁴	4.1X10 ⁵	1.3X10 ⁵	7.8X10 ⁴	1.6X10 ⁴	1.4X10 ⁶	1.0X10 ⁶
C4 Dibenzothiophenes	14	26	2.9X10 ⁵	9.7X10 ⁴	4.3X10 ⁵	1.9X10 ⁵	9.4X10 ⁴	2.6X10 ⁴	2.1X10 ⁶	1.9X10 ⁶
Overall			3.9X10⁵	8.3X10⁴	4.6X10⁵	1.1X10⁵				