

1 **Supplementary Material Cover Sheet**

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3 Temporal Variations of Organic Composition in the Tropical and Marine Atmosphere

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5 Jun He¹, Barbara Zielinska², and Rajasekhar Balasubramanian^{1,*}

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7 ¹Division of Environmental Science and Engineering, Block EA, #03-12, 9
8 Engineering Drive 1, National University of Singapore, Singapore 117576

9
10 ²Division of Atmospheric Sciences, Desert Research Institute, 2215 Raggio Parkway
11 Reno, NV 89512-1095, USA

12 * Corresponding author: eserbala@nus.edu.sg

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Table S1
Concentrations of all organic compounds investigated in 2006 in Singapore (ng m⁻³)

Sampling Date		10-11 Aug	16-17 Aug	04-05 Sept	20-21 Sept	02-03 Oct	04-05 Oct
n-Alkanes							
Dodecane	C ₁₂ H ₂₆	0.16	0.00	0.00	0.00	0.93	1.36
Tridecane	C ₁₃ H ₂₈	0.80	0.74	0.72	0.04	0.00	3.62
Tetradecane	C ₁₄ H ₃₀	0.66	0.47	0.00	0.04	0.00	0.98
Pentadecane	C ₁₅ H ₃₂	2.98	4.94	0.38	0.61	8.18	12.09
Hexadecane	C ₁₆ H ₃₄	2.30	2.07	0.03	0.00	0.00	1.55
Heptadecane	C ₁₇ H ₃₆	1.64	2.06	1.43	1.11	0.00	4.26
Octadecane	C ₁₈ H ₃₈	1.98	2.44	0.96	1.04	1.78	3.85
Nonadecane	C ₁₉ H ₄₀	3.06	5.13	1.72	1.17	5.35	8.68
Eicosane	C ₂₀ H ₄₂	4.25	5.19	2.24	3.40	7.38	9.46
Heneicosane	C ₂₁ H ₄₄	7.04	10.18	3.26	2.39	15.44	18.73
Docosane	C ₂₂ H ₄₆	5.43	9.36	5.55	1.18	13.43	15.64
Tricosane	C ₂₃ H ₄₈	4.19	7.45	3.89	0.78	13.03	15.78
Tetracosane	C ₂₄ H ₅₀	3.75	5.23	1.66	3.43	16.67	20.43
Pentacosane	C ₂₅ H ₅₂	3.43	3.49	3.82	2.13	35.71	35.88
Hexacosane	C ₂₆ H ₅₄	3.50	2.58	5.30	2.28	50.27	41.31
Heptacosane	C ₂₇ H ₅₆	5.07	2.17	4.38	3.19	74.92	60.48
Octacosane	C ₂₈ H ₅₈	4.30	1.46	6.18	4.73	61.54	52.62
Nonacosane	C ₂₉ H ₆₀	6.67	2.37	5.54	3.73	72.61	57.27
Triacontane	C ₃₀ H ₆₂	3.52	0.95	4.53	2.06	44.35	34.68
Hentriacontane	C ₃₁ H ₆₄	7.38	2.69	6.07	5.04	97.51	72.54
Dotriacontane	C ₃₂ H ₆₆	2.30	0.85	3.05	1.10	27.49	22.45

Tritriacontane	$C_{33}H_{68}$	3.13	1.16	4.69	2.11	39.49	29.45
Tettratriacontane	$C_{34}H_{70}$	0.94	0.83	1.04	0.82	8.27	5.47
Pentatriacontane	$C_{35}H_{72}$	0.67	0.15	1.28	0.88	6.76	5.50
Sampling Date		07-08 Oct	10 Oct -Day	10 Oct -Night	12 Oct -Day	13 Oct -Night	14-15 Oct
n-Alkanes							
Dodecane	$C_{12}H_{26}$	0.00	3.91	0.00	0.93	0.14	0.00
Tridecane	$C_{13}H_{28}$	0.00	9.98	0.00	0.00	0.00	0.00
Tetradecane	$C_{14}H_{30}$	1.39	2.47	2.01	3.71	2.42	0.32
Pentadecane	$C_{15}H_{32}$	10.40	22.34	16.30	17.73	10.74	0.42
Hexadecane	$C_{16}H_{34}$	1.01	3.33	4.36	2.35	0.86	2.09
Heptadecane	$C_{17}H_{36}$	2.56	9.31	12.44	8.15	3.49	8.74
Octadecane	$C_{18}H_{38}$	2.73	7.05	21.76	10.67	11.04	4.76
Nonadecane	$C_{19}H_{40}$	6.54	12.45	34.18	15.45	20.94	8.05
Eicosane	$C_{20}H_{42}$	9.32	16.29	37.16	16.21	24.22	9.99
Heneicosane	$C_{21}H_{44}$	41.45	22.80	39.73	21.12	25.99	23.51
Docosane	$C_{22}H_{46}$	52.47	18.48	31.07	14.59	17.72	26.50
Tricosane	$C_{23}H_{48}$	64.41	23.44	30.56	12.77	16.00	34.24
Tetracosane	$C_{24}H_{50}$	69.06	35.85	30.22	10.17	15.15	50.68
Pentacosane	$C_{25}H_{52}$	108.44	72.88	44.82	9.72	18.95	85.64
Hexacosane	$C_{26}H_{54}$	109.53	88.96	52.48	8.40	17.86	78.65
Heptacosane	$C_{27}H_{56}$	176.12	128.09	63.36	11.39	22.49	119.96
Octacosane	$C_{28}H_{58}$	131.69	101.18	45.24	6.64	18.36	82.21
Nonacosane	$C_{29}H_{60}$	148.75	119.94	54.60	10.10	21.70	105.93
Triacotane	$C_{30}H_{62}$	144.24	114.27	46.01	8.20	23.43	93.18

Hentriacontane	$C_{31}H_{64}$	311.41	243.50	101.58	21.89	49.92	206.37
Dotriacontane	$C_{32}H_{66}$	96.18	76.29	30.52	5.13	14.24	53.37
Tritriacontane	$C_{33}H_{68}$	127.28	91.59	41.48	6.75	17.67	63.09
Tettriacontane	$C_{34}H_{70}$	18.97	14.46	6.60	0.68	4.42	12.78
Pentatriacontane	$C_{35}H_{72}$	13.60	9.71	3.54	1.30	3.11	9.78
Sampling Date		16-17 Oct	18-19 Oct	21-22 Oct	23-24 Oct	26-27 Oct	02-03 Nov
n-Alkanes							
Dodecane	$C_{12}H_{26}$	1.52	0.00	0.68	0.00	0.00	0.05
Tridecane	$C_{13}H_{28}$	0.00	0.00	0.00	0.00	0.00	0.17
Tetradecane	$C_{14}H_{30}$	0.30	0.00	0.40	0.14	0.00	0.04
Pentadecane	$C_{15}H_{32}$	2.30	3.14	0.34	0.46	1.20	0.04
Hexadecane	$C_{16}H_{34}$	3.00	1.73	0.00	1.20	2.44	0.12
Heptadecane	$C_{17}H_{36}$	12.77	4.63	5.64	1.62	6.22	0.35
Octadecane	$C_{18}H_{38}$	5.97	6.63	1.21	2.47	9.36	0.25
Nonadecane	$C_{19}H_{40}$	9.81	9.66	4.21	5.20	15.43	0.15
Eicosane	$C_{20}H_{42}$	10.43	14.01	5.50	6.36	15.49	0.17
Heneicosane	$C_{21}H_{44}$	21.47	26.78	10.96	12.93	24.20	0.47
Docosane	$C_{22}H_{46}$	22.80	24.79	11.60	21.02	30.16	0.36
Tricosane	$C_{23}H_{48}$	33.90	28.44	15.64	23.41	25.91	0.75
Tetracosane	$C_{24}H_{50}$	52.26	35.70	21.24	21.73	21.00	1.91
Pentacosane	$C_{25}H_{52}$	103.83	59.00	46.05	25.44	16.47	2.67
Hexacosane	$C_{26}H_{54}$	103.24	59.88	52.41	24.88	12.09	3.32
Heptacosane	$C_{27}H_{56}$	161.65	77.39	87.24	30.91	13.00	3.85
Octacosane	$C_{28}H_{58}$	114.94	54.95	62.94	22.24	8.47	3.29
Nonacosane	$C_{29}H_{60}$	142.59	70.18	77.40	22.19	8.04	3.18

Triacontane	$C_{30}H_{62}$	121.17	65.73	67.02	24.52	7.38	3.42
Hentriacontane	$C_{31}H_{64}$	252.39	141.18	143.09	46.56	14.99	4.62
Dotriacontane	$C_{32}H_{66}$	67.00	38.65	37.55	13.12	4.11	1.74
Tritriacontane	$C_{33}H_{68}$	77.13	46.33	44.36	14.53	5.22	1.93
Tetratriacontane	$C_{34}H_{70}$	16.40	10.70	9.21	3.01	1.48	0.71
Pentatriacontane	$C_{35}H_{72}$	9.98	6.51	6.58	1.24	1.00	0.41
Sampling Date		05-06 Nov	09-10 Nov				
n-Alkanes							
Dodecane	$C_{12}H_{26}$	0.06	0.03				
Tridecane	$C_{13}H_{28}$	0.65	0.18				
Tetradecane	$C_{14}H_{30}$	0.12	0.08				
Pentadecane	$C_{15}H_{32}$	0.06	0.08				
Hexadecane	$C_{16}H_{34}$	0.05	0.07				
Heptadecane	$C_{17}H_{36}$	0.58	0.10				
Octadecane	$C_{18}H_{38}$	0.18	0.06				
Nonadecane	$C_{19}H_{40}$	0.19	0.25				
Eicosane	$C_{20}H_{42}$	0.24	0.11				
Heneicosane	$C_{21}H_{44}$	0.84	0.34				
Docosane	$C_{22}H_{46}$	1.09	0.17				
Tricosane	$C_{23}H_{48}$	1.73	0.50				
Tetracosane	$C_{24}H_{50}$	2.56	0.72				
Pentacosane	$C_{25}H_{52}$	4.49	1.79				
Hexacosane	$C_{26}H_{54}$	5.52	3.07				
Heptacosane	$C_{27}H_{56}$	7.82	4.34				
Octacosane	$C_{28}H_{58}$	6.29	3.66				

Nonacosane	C ₂₉ H ₆₀	6.65	3.58				
Triacontane	C ₃₀ H ₆₂	7.60	3.46				
Hentriacontane	C ₃₁ H ₆₄	13.68	4.83				
Dotriacontane	C ₃₂ H ₆₆	3.86	1.95				
Tritriacontane	C ₃₃ H ₆₈	4.34	1.75				
Tetracontane	C ₃₄ H ₇₀	0.89	0.32				
Pentatriacontane	C ₃₅ H ₇₂	0.46	0.26				
Sampling Date		10-11 Aug	16-17 Aug	04-05 Sept	20-21 Sept	02-03 Oct	04-05 Oct
PAHs							
Non-alkylated PAHs							
Naphthalene		0.48	1.18	0.72	7.25	0.00	6.19
Acenaphthylene		0.01	0.04	0.05	0.00	0.02	0.01
Acenaphthene		0.10	0.03	0.00	0.00	0.02	0.02
Fluorene		0.21	0.25	0.00	0.00	0.32	0.46
Dibenzothiophene		0.42	0.71	0.00	0.00	0.23	0.42
Phenanthrene		1.07	3.96	0.46	0.26	1.99	2.22
Anthracene		0.06	0.10	0.02	0.00	0.02	0.08
Fluoranthene		1.47	2.00	0.55	0.14	0.99	1.05
Pyrene		1.45	2.17	0.64	0.20	0.91	0.97
Benzo(c)phenanthrene		0.07	0.13	0.07	0.14	0.02	0.04
Benzo(ghi)fluoranthene		0.47	0.45	0.51	0.20	0.39	0.32
Cyclopenta(c,d)pyrene		0.03	0.03	0.05	0.09	0.08	0.01
Benz(a)anthracene		0.03	0.04	0.00	0.00	0.06	0.00
Chrysene-Triphenylene		0.33	0.38	0.37	0.00	0.36	0.18
Benzo(b+j+k)fluoranthene		0.39	0.42	2.21	1.61	0.45	0.28

Benzo(a)fluoranthene		0.00	0.00	0.00	0.00	0.00	0.00
BeP		0.17	0.11	0.91	0.40	0.25	0.15
BaP		0.12	0.04	0.74	0.28	0.15	0.09
Perylene		0.00	0.05	0.09	0.00	0.00	0.05
Dibenzo(a,j)anthracene		0.00	0.01	0.02	0.00	0.02	0.01
Indeno[123-cd]pyrene		0.12	0.07	0.02	0.42	0.15	0.16
Dibenzo(ah+ac)anthracene		0.02	0.01	0.02	0.03	0.01	0.01
Benzo(b)chrysene		0.01	0.01	0.00	0.00	0.02	0.00
Picene		0.03	0.01	0.02	0.00	0.02	0.01
Benzo(ghi)perylene		0.16	0.13	1.23	0.31	0.30	0.25
Anthanthrene		0.00	0.00	0.00	0.00	0.00	0.00
Dibenzo(b,k)fluoranthene		0.00	0.38	0.07	0.09	0.05	0.01
Dibenzo(a,e)pyrene		0.00	0.00	0.00	0.09	0.00	0.00
Coronene		0.11	0.12	0.65	0.06	0.15	0.19
Dibenzo(a,h)pyrene		0.00	0.03	0.09	0.09	0.02	0.01
Methyl-alkylated PAHs							
2-methylnaphthalene (C1)		0.00	0.00	0.00	0.00	0.00	0.00
1-methylnaphthalene (C1)		0.00	0.00	0.00	0.00	0.00	0.00
2,6+2,7-dimethylnaphthalene(C2)		0.00	0.00	0.00	0.04	0.00	0.00
1,3+1,6+1,7dimethylnaphthalene(C2)		0.00	0.00	0.04	0.13	0.00	0.00
1,4+1,5+2,3-dimethylnaphthalene(C2)		0.05	0.06	0.07	0.04	0.00	0.06
1,2-dimethylnaphthalene(C2)		0.00	0.01	0.06	0.00	0.02	0.01
2-Methylbiphenyl		0.07	0.10	0.14	0.30	0.14	0.51
3-Methylbiphenyl		0.20	0.26	0.14	0.99	0.63	1.58
4-Methylbiphenyl		0.10	0.14	0.13	0.30	0.25	0.66

A-trimethylnaphthalene		0.01	0.11	0.04	0.00	0.15	0.10
B-trimethylnaphthalene		0.01	0.09	0.00	0.00	0.08	0.10
C-trimethylnaphthalene		0.01	0.00	0.04	0.00	0.08	0.01
E-trimethylnaphthalene		0.02	0.04	0.04	0.07	0.00	0.12
F-trimethylnaphthalene		0.00	0.02	0.04	0.07	0.06	0.02
J-trimethylnaphthalene		0.03	0.06	0.04	0.06	0.04	0.09
2,3,5+I-trimethylnaphthalene		0.01	0.10	0.04	0.03	0.06	0.03
2,4,5-trimethylnaphthalene		0.19	0.17	0.00	2.26	0.04	0.20
1,4,5-trimethylnaphthalene		0.01	0.02	0.03	0.07	0.06	0.04
A-methylfluorene		0.02	0.15	0.00	0.00	0.03	0.25
B-methylfluorene		0.00	0.00	0.06	0.07	0.01	0.00
1-methylfluorene		0.01	0.01	0.04	0.07	0.06	0.06
2-methylanthracene (C1)		0.01	0.05	0.00	0.00	0.06	0.11
3-methylphenanthrene(C1)		0.38	1.17	0.84	0.00	0.92	0.58
2-methylphenanthrene(C1)		0.42	1.22	0.00	0.00	0.07	0.39
9-methylphenanthrene(C1)		0.29	1.63	0.00	0.00	0.50	0.34
4,5-methylenephenanthrene		0.12	0.27	0.04	0.00	0.14	0.33
1-methylphenanthrene(C1)		0.28	1.50	0.04	0.32	0.02	0.45
3,6-dimethylphenanthrene		0.02	0.40	0.03	0.03	0.29	0.24
A-dimethylphenanthrene		0.06	0.25	0.03	0.03	0.17	0.42
B-dimethylphenanthrene		0.06	0.03	0.08	0.03	0.18	0.37
C-dimethylphenanthrene		0.27	0.64	0.03	0.03	0.35	0.75
D-dimethylphenanthrene		0.02	0.27	0.06	0.01	0.03	0.45
E-dimethylphenanthrene		0.07	0.07	0.04	0.04	0.05	0.33
1,7-dimethylphenanthrene		0.05	0.27	0.03	0.01	0.29	0.26

9-methylanthracene(C1)		0.01	0.01	0.04	0.03	0.06	0.04
1+3-methylfluoranthene		0.03	0.12	0.06	0.03	0.05	0.02
1-MeFl+C-MeFl/Py(C1)		0.40	0.40	0.20	0.01	0.00	0.00
B-MePy/MeFl(C1)		0.41	0.42	0.26	0.04	0.02	0.05
C-MePy/MeFl(C1)		0.43	0.44	0.26	0.06	0.04	0.02
D-MePy/MeFl(C1)		0.46	0.55	0.26	0.03	0.14	0.05
4-methylpyrene		0.49	0.48	0.26	0.03	0.13	0.22
1-methylpyrene		0.42	0.49	0.04	0.04	0.11	0.07
7-methylbenz(a)anthracene		0.01	0.00	0.20	0.00	0.01	0.00
3-methylchrysene		0.01	0.00	0.01	0.01	0.01	0.00
5+6-methylchrysene		0.00	0.01	0.04	0.07	0.00	0.01
7-methylbenzo(a)pyrene		0.00	0.00	0.07	0.00	0.02	0.01
Oxygenated PAHs							
Dibenzofuran		0.17	0.12	0.02	0.00	0.34	0.97
9-fluorenone		0.83	1.04	0.05	0.02	2.56	1.98
Xanthone		0.30	0.32	0.23	0.07	0.57	0.20
Perinaphthenone		0.40	0.69	0.44	0.26	0.77	0.95
Anthrone		0.27	0.00	0.05	0.00	0.00	1.23
Anthraquinone		0.63	0.70	0.67	0.68	1.22	0.65
9-Anthraaldehyde		0.03	0.05	0.07	0.09	0.04	0.03
Benzanthrone		0.21	0.07	0.54	0.12	0.20	0.14
Benz(a)anthracene-7,12-dione		0.22	0.07	0.21	0.16	0.14	0.01
9,10-dihydrobenzo(a)pyrene-7(8H)-one		0.00	0.02	0.09	0.02	0.00	0.03
Others							
Nicotine		0.00	0.79	0.02	0.24	0.00	0.00

1+2ethylnaphthalene		0.00	0.00	0.01	0.00	0.00	0.00
1-ethyl-2-methylnaphthalene		0.03	0.00	0.01	0.00	0.00	0.06
2-ethyl-1-methylnaphthalene		0.08	0.01	0.01	0.01	0.02	0.04
Biphenyl		0.13	0.04	0.00	0.00	0.11	0.65
Retene		0.02	0.05	0.00	0.00	0.01	0.01
Benzonaphthothiophene		0.04	0.01	0.00	0.01	0.29	0.01
Sampling Date		07-08 Oct	10 Oct -Day	10 Oct -Night	12 Oct -Day	13 Oct -Night	14-15 Oct
PAHs							
Non-alkylated PAHs							
Naphthalene		0.00	1.30	2.23	0.75	1.89	1.49
Acenaphthylene		0.20	0.11	0.83	0.08	0.16	0.13
Acenaphthene		0.00	0.07	0.29	0.00	0.03	0.11
Fluorene		0.25	1.38	3.05	0.69	1.54	0.94
Dibenzothiophene		0.17	0.60	1.81	0.65	1.20	0.38
Phenanthrene		2.74	3.60	18.17	4.02	11.18	3.15
Anthracene		0.07	0.04	0.79	0.14	0.76	0.08
Fluoranthene		1.81	1.24	4.71	1.72	2.95	2.24
Pyrene		1.60	1.19	4.62	1.42	2.81	1.86
Benzo(c)phenanthrene		1.48	0.06	2.55	2.62	1.71	1.93
Benzo(ghi)fluoranthene		0.44	0.82	1.00	0.31	0.34	0.18
Cyclopenta(c,d)pyrene		0.04	0.04	0.28	0.01	0.16	0.01
Benz(a)anthracene		0.11	0.00	0.17	0.05	0.00	0.04
Chrysene-Triphenylene		0.56	0.11	0.87	0.16	0.25	0.40
Benzo(b+j+k)fluoranthene		0.62	0.41	1.32	0.38	0.89	0.34

Benzo(a)fluoranthene		0.01	0.01	0.00	0.00	0.02	0.00
BeP		0.26	0.00	0.56	0.10	0.16	0.09
BaP		0.18	0.14	0.38	0.08	0.32	0.09
Perylene		0.04	0.07	0.03	0.02	0.02	0.05
Dibenzo(a,j)anthracene		0.04	0.04	0.05	0.01	0.05	0.02
Indeno[123-cd]pyrene		0.02	0.08	0.43	0.01	0.29	0.06
Dibenzo(ah+ac)anthracene		0.04	0.08	0.28	0.01	0.07	0.04
Benzo(b)chrysene		0.02	0.14	0.03	0.03	0.05	0.04
Picene		0.12	0.03	0.07	0.05	0.05	0.09
Benzo(ghi)perylene		0.50	0.19	1.20	0.04	0.19	0.07
Anthanthrene		0.02	0.10	0.19	0.01	0.05	0.03
Dibenzo(b,k)fluoranthene		0.44	0.03	0.26	0.16	0.36	0.12
Dibenzo(a,e)pyrene		0.02	0.10	0.14	0.24	0.13	0.06
Coronene		0.06	0.34	0.26	0.17	0.25	0.10
Dibenzo(a,h)pyrene		0.06	0.24	0.15	0.12	0.11	0.06
Methyl-alkylated PAHs							
2-methylnaphthalene (C1)		0.00	0.00	0.00	0.00	0.00	0.00
1-methylnaphthalene (C1)		0.00	0.00	0.00	0.00	0.00	0.00
2,6+2,7-dimethylnaphthalene(C2)		0.00	0.00	0.28	0.00	0.00	0.00
1,3+1,6+1,7dimethylnaphthalene(C2)		0.00	0.00	0.90	0.00	0.30	0.19
1,4+1,5+2,3-dimethylnaphthalene(C2)		0.00	0.00	0.56	0.12	0.30	0.08
1,2-dimethylnaphthalene(C2)		0.02	0.10	0.27	0.00	0.10	0.13
2-Methylbiphenyl		0.82	1.07	0.91	0.52	0.92	0.76
3-Methylbiphenyl		1.13	1.40	1.82	1.15	1.22	1.04
4-Methylbiphenyl		0.35	0.76	0.95	0.60	0.71	0.25

A-trimethylnaphthalene		0.82	1.03	0.83	0.25	0.85	0.08
B-trimethylnaphthalene		0.05	0.22	1.24	0.08	0.90	0.32
C-trimethylnaphthalene		0.06	0.27	1.21	0.08	0.00	0.31
E-trimethylnaphthalene		0.06	0.46	0.92	0.33	0.59	0.51
F-trimethylnaphthalene		0.13	0.10	0.48	0.01	0.07	0.02
J-trimethylnaphthalene		0.14	0.08	0.68	0.10	0.04	0.37
2,3,5+I-trimethylnaphthalene		0.20	0.20	2.18	0.43	0.54	0.14
2,4,5-trimethylnaphthalene		0.07	0.05	0.54	0.00	0.73	0.23
1,4,5-trimethylnaphthalene		0.04	0.06	0.41	0.25	0.43	0.01
A-methylfluorene		0.28	0.48	2.80	0.63	1.86	0.52
B-methylfluorene		0.08	0.10	0.09	0.00	0.02	0.04
1-methylfluorene		0.07	0.13	0.16	0.03	0.22	0.13
2-methylanthracene (C1)		0.17	0.09	0.35	0.59	0.18	0.16
3-methylphenanthrene(C1)		0.83	0.81	2.59	1.21	2.27	0.83
2-methylphenanthrene(C1)		1.08	0.89	2.59	1.21	0.03	1.26
9-methylphenanthrene(C1)		0.88	0.36	1.59	0.60	1.49	0.37
4,5-methylenephenanthrene		0.35	0.10	1.06	0.25	1.09	0.45
1-methylphenanthrene(C1)		0.60	0.42	1.59	0.12	1.10	0.24
3,6-dimethylphenanthrene		0.33	0.20	0.51	0.16	0.44	0.22
A-dimethylphenanthrene		0.33	0.27	0.38	0.25	0.26	0.22
B-dimethylphenanthrene		0.04	0.08	0.14	0.25	0.16	0.24
C-dimethylphenanthrene		0.90	0.17	1.99	0.35	1.40	0.95
D-dimethylphenanthrene		0.33	0.13	0.86	0.23	0.16	0.32
E-dimethylphenanthrene		0.07	0.36	0.71	0.10	0.54	0.47
1,7-dimethylphenanthrene		0.17	0.27	0.83	0.50	0.70	0.37

9-methylanthracene(C1)		0.18	0.06	1.30	0.42	0.41	0.07
1+3-methylfluoranthene		0.12	0.18	0.17	0.08	0.04	0.13
1-MeFl+C-MeFl/Py(C1)		0.00	0.00	0.00	0.00	0.21	0.07
B-MePy/MeFl(C1)		0.06	0.18	0.30	0.07	0.14	0.15
C-MePy/MeFl(C1)		0.11	0.16	0.18	0.03	0.14	0.07
D-MePy/MeFl(C1)		0.25	0.16	0.03	0.08	0.48	0.03
4-methylpyrene		0.30	0.23	0.66	0.18	0.41	0.25
1-methylpyrene		0.07	0.17	0.45	0.03	0.15	0.21
7-methylbenz(a)anthracene		0.04	0.02	0.00	0.02	0.00	0.02
3-methylchrysene		0.05	0.01	0.04	0.00	0.03	0.01
5+6-methylchrysene		0.01	0.09	0.06	0.02	0.00	0.01
7-methylbenzo(a)pyrene		0.05	0.03	0.09	0.03	0.01	0.03
Oxygenated PAHs							
Dibenzofuran		0.44	1.71	1.85	0.56	1.46	1.56
9-fluorenone		5.30	7.43	8.90	3.20	4.86	8.67
Xanthone		1.70	0.82	1.86	0.21	1.46	0.45
Perinaphthenone		0.42	0.44	1.00	0.14	1.15	0.60
Anthrone		1.88	1.19	0.00	0.05	1.94	2.35
Anthraquinone		1.19	0.34	1.20	0.87	1.14	1.10
9-Anthraaldehyde		0.13	0.22	0.05	0.06	0.12	0.06
Benzanthrone		0.13	0.24	0.09	0.03	0.11	0.03
Benz(a)anthracene-7,12-dione		0.19	0.44	0.22	0.14	0.02	0.06
9,10-dihydrobenzo(a)pyrene-7(8H)-one		0.01	0.06	0.02	0.03	0.04	0.01
Others							
Nicotine		0.00	0.00	0.00	2.97	4.02	0.24

1+2ethylnaphthalene		0.00	0.00	0.00	0.00	0.00	0.00
1-ethyl-2-methylnaphthalene		0.16	0.11	0.32	0.09	0.01	0.10
2-ethyl-1-methylnaphthalene		0.24	0.01	0.03	0.44	0.86	0.24
Biphenyl		0.26	1.60	0.75	0.30	0.58	0.67
Retene		0.03	0.04	0.05	0.03	0.06	0.04
Benzonaphthothiophene		0.04	0.15	0.21	0.02	0.11	0.11
Sampling Date		16-17 Oct	18-19 Oct	21-22 Oct	23-24 Oct	26-27 Oct	02-03 Nov
PAHs							
Non-alkylated PAHs							
Naphthalene		0.00	0.00	0.16	0.00	0.09	0.07
Acenaphthylene		0.06	0.08	0.11	0.10	0.30	0.01
Acenaphthene		0.00	0.00	0.05	0.02	0.07	0.01
Fluorene		0.10	0.17	0.50	0.44	0.73	0.00
Dibenzothiophene		0.24	0.22	0.41	0.36	0.49	0.01
Phenanthrene		1.84	1.87	3.22	2.50	4.07	0.12
Anthracene		0.00	0.04	0.17	0.15	0.48	0.03
Fluoranthene		1.14	1.58	2.64	2.76	3.64	0.20
Pyrene		1.11	1.28	2.72	2.70	3.85	0.23
Benzo(c)phenanthrene		1.02	1.72	1.98	1.44	1.50	0.02
Benzo(ghi)fluoranthene		0.22	0.31	0.70	0.94	1.71	0.54
Cyclopenta(c,d)pyrene		0.02	0.02	0.04	0.00	0.18	0.03
Benz(a)anthracene		0.02	0.05	0.10	0.16	0.28	0.13
Chrysene-Triphenylene		0.28	0.25	0.43	0.29	0.49	0.06
Benzo(b+j+k)fluoranthene		0.45	0.37	0.39	0.41	0.84	1.16
Benzo(a)fluoranthene		0.00	0.00	0.00	0.00	0.00	0.02

BeP		0.10	0.10	0.20	0.17	0.43	0.51
BaP		0.06	0.05	0.12	0.08	0.35	0.30
Perylene		0.04	0.04	0.06	0.02	0.03	0.07
Dibenzo(a,j)anthracene		0.06	0.04	0.04	0.01	0.01	0.02
Indeno[123-cd]pyrene		0.17	0.11	0.03	0.17	0.06	0.02
Dibenzo(ah+ac)anthracene		0.06	0.02	0.01	0.01	0.04	0.02
Benzo(b)chrysene		0.02	0.03	0.08	0.01	0.02	0.01
Picene		0.00	0.04	0.02	0.05	0.01	0.01
Benzo(ghi)perylene		0.31	0.17	0.20	0.01	0.01	1.09
Anthanthrene		0.03	0.02	0.05	0.02	0.01	0.02
Dibenzo(b,k)fluoranthene		0.16	0.12	0.12	0.19	0.10	0.12
Dibenzo(a,e)pyrene		0.00	0.01	0.07	0.08	0.10	0.08
Coronene		0.08	0.05	0.12	0.08	0.03	0.02
Dibenzo(a,h)pyrene		0.00	0.15	0.18	0.11	0.12	0.04
Methyl-alkylated PAHs							
2-methylnaphthalene (C1)		0.00	0.00	0.00	0.00	0.01	0.01
1-methylnaphthalene (C1)		0.00	0.00	0.00	0.00	0.01	0.01
2,6+2,7-dimethylnaphthalene(C2)		0.00	0.00	0.00	0.00	0.00	0.00
1,3+1,6+1,7dimethylnaphthalene(C2)		0.00	0.00	0.00	0.10	0.02	0.02
1,4+1,5+2,3-dimethylnaphthalene(C2)		0.02	0.05	0.00	0.11	0.00	0.00
1,2-dimethylnaphthalene(C2)		0.03	0.01	0.00	0.11	0.01	0.01
2-Methylbiphenyl		0.78	0.95	0.33	0.50	0.01	0.01
3-Methylbiphenyl		0.73	1.31	0.47	0.81	0.01	0.01
4-Methylbiphenyl		0.42	0.59	0.24	0.46	0.00	0.00
A-trimethylnaphthalene		0.01	0.16	0.00	0.04	0.01	0.01

B-trimethylnaphthalene		0.01	0.25	0.07	0.14	0.01	0.01
C-trimethylnaphthalene		0.04	0.09	0.00	0.30	0.00	0.00
E-trimethylnaphthalene		0.10	0.12	0.03	0.25	0.00	0.00
F-trimethylnaphthalene		0.02	0.06	0.02	0.01	0.00	0.00
J-trimethylnaphthalene		0.02	0.04	0.05	0.03	0.00	0.00
2,3,5-I-trimethylnaphthalene		0.23	0.11	0.11	0.21	0.00	0.00
2,4,5-trimethylnaphthalene		0.01	0.08	0.04	0.29	0.01	0.01
1,4,5-trimethylnaphthalene		0.01	0.14	0.01	0.07	0.01	0.01
A-methylfluorene		0.12	0.47	0.31	0.71	0.00	0.00
B-methylfluorene		0.04	0.17	0.00	0.07	0.01	0.01
1-methylfluorene		0.08	0.28	0.09	0.11	0.01	0.01
2-methylanthracene (C1)		0.10	0.06	0.19	0.35	0.00	0.00
3-methylphenanthrene(C1)		0.31	1.57	0.75	1.32	0.02	0.02
2-methylphenanthrene(C1)		0.33	1.74	1.19	1.97	0.00	0.00
9-methylphenanthrene(C1)		0.35	1.09	0.75	1.53	0.00	0.00
4,5-methylenephenanthrene		0.19	0.44	0.24	0.62	0.00	0.00
1-methylphenanthrene(C1)		0.07	0.80	0.63	1.47	0.00	0.00
3,6-dimethylphenanthrene		0.05	0.50	0.36	0.30	0.00	0.00
A-dimethylphenanthrene		0.04	0.59	0.56	0.78	0.00	0.00
B-dimethylphenanthrene		0.11	0.36	0.03	0.39	0.00	0.00
C-dimethylphenanthrene		0.47	1.26	1.17	1.65	0.01	0.01
D-dimethylphenanthrene		0.25	0.52	0.61	0.78	0.01	0.01
E-dimethylphenanthrene		0.28	0.40	0.39	0.44	0.01	0.01
1,7-dimethylphenanthrene		0.22	0.50	0.67	1.04	0.02	0.02
9-methylanthracene(C1)		0.10	0.06	0.04	0.09	0.01	0.01

1+3-methylfluoranthene		0.02	0.21	0.10	0.09	0.05	0.05
1-MeFl+C-MeFl/Py(C1)		0.04	0.04	0.00	0.00	0.05	0.05
B-MePy/MeFl(C1)		0.06	0.16	0.21	0.17	0.02	0.02
C-MePy/MeFl(C1)		0.04	0.04	0.09	0.08	0.02	0.02
D-MePy/MeFl(C1)		0.01	0.31	0.48	0.53	0.01	0.01
4-methylpyrene		0.04	0.47	0.54	0.92	0.01	0.01
1-methylpyrene		0.05	0.26	0.17	0.44	0.05	0.05
7-methylbenz(a)anthracene		0.01	0.01	0.02	0.03	0.00	0.00
3-methylchrysene		0.01	0.00	0.02	0.01	0.03	0.03
5+6-methylchrysene		0.02	0.02	0.01	0.02	0.01	0.01
7-methylbenzo(a)pyrene		0.01	0.00	0.04	0.02	0.02	0.02
Oxygenated PAHs							
Dibenzofuran		0.533	1.136	0.287	0.433	0.003	0.01
9-fluorenone		3.443	7.835	2.098	1.647	0.012	0.02
Xanthone		0.245	0.996	0.109	0.621	0.007	0.01
Perinaphthenone		0.491	0.107	0.619	1.695	0.016	0.02
Anthrone		1.031	1.243	0.536	2.688	0.017	0.06
Anthraquinone		0.819	1.026	0.528	1.254	0.061	0.07
9-Anthraaldehyde		0.017	0.016	0.018	0.065	0.014	0.02
Benzanthrone		0.115	0.091	0.210	0.042	0.104	0.01
Benz(a)anthracene-7,12-dione		0.178	0.023	0.049	0.101	0.154	0.02
9,10-dihydrobenzo(a)pyrene-7(8H)-one		0.115	0.055	0.023	0.014	0.026	0.04
Others							
Nicotine		0.000	0.000	0.000	0.000	0.464	0.02
1+2ethylnaphthalene		0.000	0.000	0.000	0.011	0.003	0.01

1-ethyl-2-methylnaphthalene		0.176	0.182	0.158	0.236	0.005	0.01
2-ethyl-1-methylnaphthalene		0.042	0.088	0.000	0.177	0.003	0.02
Biphenyl		0.249	0.617	0.080	0.256	0.000	0.00
Retene		0.008	0.062	0.060	0.073	0.000	0.00
Benzonaphthothiophene		0.021	0.153	0.109	0.079	0.036	0.01
Sampling Date		05-06 Nov	09-10 Nov				
PAHs							
Non-alkylated PAHs							
Naphthalene		0.07	0.08				
Acenaphthylene		0.00	0.01				
Acenaphthene		0.02	0.03				
Fluorene		0.01	0.00				
Dibenzothiophene		0.00	0.00				
Phenanthrene		0.09	0.14				
Anthracene		0.00	0.01				
Fluoranthene		0.12	0.08				
Pyrene		0.16	0.24				
Benzo(c)phenanthrene		0.01	0.03				
Benzo(ghi)fluoranthene		0.03	0.34				
Cyclopenta(c,d)pyrene		0.02	0.26				
Benz(a)anthracene		0.09	0.18				
Chrysene-Triphenylene		0.12	0.32				
Benzo(b+j+k)fluoranthene		0.48	1.32				
Benzo(a)fluoranthene		0.00	0.04				
BeP		0.00	0.63				

BaP		0.03	0.61				
Perylene		0.02	0.13				
Dibenzo(a,j)anthracene		0.02	0.03				
Indeno[123-cd]pyrene		0.01	0.03				
Dibenzo(ah+ac)anthracene		0.01	0.02				
Benzo(b)chrysene		0.01	0.02				
Picene		0.02	0.01				
Benzo(ghi)perylene		0.02	1.55				
Anthanthrene		0.01	0.04				
Dibenzo(b,k)fluoranthene		0.06	0.26				
Dibenzo(a,e)pyrene		0.06	0.04				
Coronene		0.07	0.32				
Dibenzo(a,h)pyrene		0.13	0.08				
Methyl-alkylated PAHs							
2-methylnaphthalene (C1)		0.01	0.02				
1-methylnaphthalene (C1)		0.01	0.00				
2,6+2,7-dimethylnaphthalene(C2)		0.00	0.01				
1,3+1,6+1,7dimethylnaphthalene(C2)		0.01	0.01				
1,4+1,5+2,3-dimethylnaphthalene(C2)		0.01	0.01				
1,2-dimethylnaphthalene(C2)		0.01	0.01				
2-Methylbiphenyl		0.02	0.02				
3-Methylbiphenyl		0.03	0.03				
4-Methylbiphenyl		0.01	0.00				
A-trimethylnaphthalene		0.01	0.00				
B-trimethylnaphthalene		0.01	0.00				

C-trimethylnaphthalene		0.01	0.00				
E-trimethylnaphthalene		0.02	0.01				
F-trimethylnaphthalene		0.01	0.00				
J-trimethylnaphthalene		0.01	0.01				
2,3,5-I-trimethylnaphthalene		0.01	0.01				
2,4,5-trimethylnaphthalene		0.01	0.00				
1,4,5-trimethylnaphthalene		0.00	0.00				
A-methylfluorene		0.00	0.00				
B-methylfluorene		0.01	0.00				
1-methylfluorene		0.01	0.00				
2-methylanthracene (C1)		0.00	0.01				
3-methylphenanthrene(C1)		0.00	0.00				
2-methylphenanthrene(C1)		0.00	0.00				
9-methylphenanthrene(C1)		0.00	0.01				
4,5-methylenephenanthrene		0.00	0.01				
1-methylphenanthrene(C1)		0.01	0.00				
3,6-dimethylphenanthrene		0.00	0.01				
A-dimethylphenanthrene		0.01	0.00				
B-dimethylphenanthrene		0.01	0.01				
C-dimethylphenanthrene		0.00	0.00				
D-dimethylphenanthrene		0.01	0.01				
E-dimethylphenanthrene		0.01	0.01				
1,7-dimethylphenanthrene		0.01	0.01				
9-methylanthracene(C1)		0.01	0.01				
1+3-methylfluoranthene		0.01	0.00				

1-MeFl+C-MeFl/Py(C1)		0.04	0.04				
B-MePy/MeFl(C1)		0.00	0.03				
C-MePy/MeFl(C1)		0.01	0.01				
D-MePy/MeFl(C1)		0.01	0.03				
4-methylpyrene		0.03	0.08				
1-methylpyrene		0.02	0.05				
7-methylbenz(a)anthracene		0.00	0.01				
3-methylchrysene		0.00	0.01				
5+6-methylchrysene		0.01	0.03				
7-methylbenzo(a)pyrene		0.01	0.04				
Oxygenated PAHs							
Dibenzofuran		0.01	0.007				
9-fluorenone		0.02	0.011				
Xanthone		0.01	0.004				
Perinaphthenone		0.02	0.017				
Anthrone		0.06	0.035				
Anthraquinone		0.07	0.041				
9-Anthraaldehyde		0.02	0.007				
Benzanthrone		0.01	0.407				
Benz(a)anthracene-7,12-dione		0.02	0.013				
9,10-dihydrobenzo(a)pyrene-7(8H)-one		0.04	0.013				
Others							
Nicotine		0.02	0.000				
1+2ethylnaphthalene		0.01	0.004				
1-ethyl-2-methylnaphthalene		0.01	0.004				

2-ethyl-1-methylnaphthalene		0.02	0.007				
Biphenyl		0.00	0.011				
Retene		0.00	0.002				
Benzonaphthothiophene		0.01	0.028				
Sampling Date		10-11 Aug	16-17 Aug	04-05 Sept	20-21 Sept	02-03 Oct	04-05 Oct
Polar organic compounds							
Alkanoic acids							
decanoic acid (c10)		2.97	3.19	0.60	1.05	1.79	2.64
undecanoic acid (c11)		0.14	0.90	0.49	1.16	0.16	0.39
dodecanoic (lauric) acid (c12)		1.29	5.26	1.18	2.27	0.00	0.14
tridecanoic acid (c13)		2.48	4.65	0.19	0.82	0.43	2.04
myristic acid (c14)		30.65	53.54	7.12	8.22	16.75	32.51
pentadecanoic acid (c15)		14.21	16.00	2.87	3.23	13.39	15.47
palmitic acid (c16)		0.00	0.00	33.71	34.25	14.30	23.15
heptadecanoic acid (c17)		3.17	0.00	2.81	2.80	9.16	7.20
stearic acid (c18)		0.00	0.00	2.21	1.07	0.00	0.00
nonadecanoic acid (c19)		0.00	0.00	0.78	1.37	0.00	0.00
eicosanoic acid (c20)		4.50	3.76	4.50	2.82	14.13	17.43
heneicosanoic acid (c21)		1.39	0.00	3.54	1.99	13.03	13.78
docosanoic acid (c22)		6.98	0.40	11.63	7.85	6.68	24.79
tricosanoic acid (c23)		11.52	3.79	8.24	5.73	20.84	33.82
tetracosanoic acid (c24)		18.42	4.73	19.92	16.51	11.42	15.33
n-Alkanedioic acid							
succinic acid (d-c4)		29.39	37.84	21.31	37.37	33.64	52.88
glutaric acid (d-c5)		33.63	22.79	6.58	15.38	59.66	36.59

hexanedioic (adipic) acid (d-c6)		3.52	0.38	5.15	8.13	4.17	5.47
heptanedioic (pimelic) acid (d-c7)		1.21	0.00	3.74	4.39	2.84	3.45
suberic acid (d-c8)		0.64	0.99	0.86	1.16	2.70	0.43
azelaic acid (d-c9)		10.52	13.75	7.95	6.45	35.26	22.65
sebacic acid (d-c10)		0.03	1.13	2.50	1.67	21.57	11.64
undecanedioic acid (d-c11)		3.39	0.35	2.75	2.00	25.93	13.14
dodecanedioic acid (d-c12)		1.23	0.43	1.41	1.06	17.65	9.31
1,11-undecanedicarboxylic acid (d-c13)		3.98	0.46	1.21	1.06	12.16	5.89
1,12-dodecanedicarboxylic acid (d-c14)		0.47	0.11	0.76	0.27	3.76	2.17
Methyl-alkanedioic acid							
methyl-malonic acid(d-c4)		2.79	3.38	0.81	2.08	14.19	9.95
methyl-succinic acid(d-c5)		16.01	15.89	4.17	7.02	57.15	24.12
2-methyl glutaric acid (d-c6)		1.99	1.83	0.84	1.59	3.32	1.04
3-methylglutaric acid (d-c6)		1.61	0.51	0.62	0.82	3.98	1.99
3-methyladipic acid (d-c7)		0.72	1.31	0.85	0.68	0.43	0.60
Aromatic monocarboxylic acid							
benzoic acid		126.06	198.11	11.74	33.54	151.96	238.96
salcylic acid		10.56	10.38	0.31	0.52	0.95	10.00
vanillic acid		3.14	2.90	0.61	0.91	1.97	3.78
homovanillic acid		0.05	0.15	0.13	0.14	0.17	0.28
syringic acid		3.81	0.00	0.56	0.98	0.79	4.69
pimaric acid		1.55	0.91	0.38	0.88	1.16	0.48
isopimaric acid		0.25	0.08	0.09	0.00	0.28	0.20
dehydroabietic acid		4.00	19.83	10.11	8.63	3.24	2.87
abietic acid		0.02	0.09	0.03	0.04	0.19	0.19

Aromatic dicarboxylic acid							
phthalic acid		4.84	0.97	9.35	9.22	0.00	3.43
isophthalic acid		1.57	0.26	1.54	1.95	0.00	1.25
Methoxylated phenol							
4-methyl-guaiacol		0.40	0.24	0.01	0.00	0.17	0.05
4-ethyl-guaiacol		0.02	0.00	0.01	0.00	0.05	0.03
syringol		0.06	0.34	0.02	0.00	0.07	0.06
4-allyl-guaiacol (eugenol)		0.25	0.24	0.03	0.01	0.00	0.00
4-methyl-syringol		0.02	0.00	0.02	0.00	0.04	0.04
4-formyl-guaiacol (vanillin)		0.29	0.05	0.36	0.03	0.87	1.22
isoeugenol		0.00	0.00	0.03	0.02	0.00	0.06
acetovanillone		0.00	0.00	0.04	0.02	1.05	0.00
Anhydrosugar							
levoglucosan		353.20	175.24	284.54	383.77	523.17	935.08
Other polar organic compounds							
maleic acid		17.22	17.86	3.04	3.69	1.94	11.51
cis-pinonic acid		0.10	0.44	0.73	1.80	0.07	0.53
syringaldehyde		0.11	0.00	0.06	0.02	0.00	0.00
myristoleic acid		1.22	0.97	0.91	0.75	1.51	1.21
palmitoleic acid		1.40	0.00	1.46	0.49	3.34	0.00
isostearic acid		0.61	0.57	0.38	0.00	0.95	0.48
traumatic acid		0.86	1.69	2.47	1.03	0.54	1.91
oleic acid		0.00	14.50	2.36	0.78	0.00	2.13
elaidic acid		0.00	0.00	0.84	0.51	1.83	0.29
8,15-pimaradien-18-oic acid		0.22	0.58	0.03	0.00	0.18	0.16

cholesterol		0.89	2.15	1.58	1.60	1.33	1.26
sitosterol		0.00	0.00	0.62	0.28	0.00	0.00
7-oxodehydroabietic acid		0.55	0.00	0.60	0.95	0.31	0.95
Sampling Date		07-08 Oct	10 Oct -Day	10 Oct -Night	12 Oct -Day	13 Oct -Night	14-15 Oct
Alkanoic acids							
decanoic acid (c10)		6.40	4.87	3.96	10.45	23.33	3.86
undecanoic acid (c11)		3.30	2.49	0.95	1.56	8.01	2.85
dodecanoic (lauric) acid (c12)		0.87	0.00	12.30	6.12	20.94	0.00
tridecanoic acid (c13)		0.00	6.98	1.28	0.00	5.38	11.29
myristic acid (c14)		0.00	71.11	65.48	63.21	53.94	3.00
pentadecanoic acid (c15)		0.02	28.02	5.36	29.53	19.41	2.41
palmitic acid (c16)		0.00	34.35	0.00	10.32	6.72	0.00
heptadecanoic acid (c17)		0.00	9.16	0.00	0.00	0.00	0.00
stearic acid (c18)		0.00	0.00	0.00	0.00	0.00	0.00
nonadecanoic acid (c19)		0.00	11.53	0.00	0.00	0.00	0.00
eicosanoic acid (c20)		15.21	69.89	77.82	16.68	11.70	1.52
heneicosanoic acid (c21)		21.56	52.23	60.52	0.00	0.00	18.84
docosanoic acid (c22)		9.14	30.37	0.52	42.61	29.82	16.59
tricosanoic acid (c23)		16.94	53.77	87.92	30.45	32.60	9.63
tetracosanoic acid (c24)		11.03	2.68	18.93	50.86	37.11	15.23
n-Alkanedioic acid							
succinic acid (d-c4)		49.54	176.59	91.41	115.40	94.24	101.16
glutaric acid (d-c5)		11.68	107.02	75.36	45.08	33.88	3.19
hexanedioic (adipic) acid (d-c6)		0.57	11.15	7.42	6.26	8.92	1.83

heptanedioic (pimelic) acid (d-c7)		5.27	9.57	3.80	0.00	1.24	9.23
suberic acid (d-c8)		0.00	0.04	7.17	2.01	1.01	0.00
azelaic acid (d-c9)		0.00	46.55	37.48	17.84	13.30	0.00
sebacic acid (d-c10)		0.00	36.17	30.27	4.97	0.13	0.00
undecanedioic acid (d-c11)		23.39	28.17	27.39	5.77	4.50	15.22
dodecanedioic acid (d-c12)		14.55	21.48	0.56	0.51	0.12	48.77
1,11-undecanedicarboxylic acid (d-c13)		1.38	19.42	1.32	4.91	0.84	11.39
1,12-dodecanedicarboxylic acid (d-c14)		13.91	11.43	1.59	1.55	0.21	3.51
Methyl-alkanedioic acid							
methyl-malonic acid(d-c4)		29.40	13.44	0.18	0.75	1.88	40.32
methyl-succinic acid(d-c5)		19.91	73.51	39.15	20.38	13.00	20.42
2-methyl glutaric acid (d-c6)		5.95	1.57	2.54	0.65	0.01	55.13
3-methylglutaric acid (d-c6)		0.24	8.32	1.90	3.71	1.70	16.21
3-methyladipic acid (d-c7)		22.74	1.98	45.45	0.00	4.02	8.13
Anhydrosugar							
Levoglucosan		7671.39	1831.59	1972.25	664.67	518.23	5009.13
Aromatic monocarboxylic acid							
benzoic acid		141.38	385.88	390.60	479.14	354.54	253.40
salicylic acid		0.00	31.10	0.00	30.41	19.99	0.00
vanillic acid		0.00	3.73	0.40	0.18	2.59	2.17
homovanillic acid		0.81	0.45	0.00	0.50	0.00	1.27
syringic acid		0.26	1.15	2.07	0.00	8.59	0.64
pimaric acid		40.83	2.00	1.15	4.85	0.42	8.97
isopimaric acid		7.93	0.82	0.71	0.32	0.40	0.29
dehydroabietic acid		1.18	6.23	86.40	7.95	7.33	0.00

abietic acid		3.48	0.16	1.51	0.35	0.11	1.05
Aromatic dicarboxylic acid							
phthalic acid		0.00	5.38	4.32	7.14	6.02	0.00
isophthalic acid		0.23	9.91	6.58	0.00	0.00	1.10
Methoxylated phenol							
4-methyl-guaiacol		0.43	0.13	0.07	0.15	0.09	0.26
4-ethyl-guaiacol		1.22	0.00	0.10	0.00	0.00	0.12
syringol		0.11	0.05	1.01	0.05	0.13	0.49
4-allyl-guaiacol (eugenol)		0.20	0.15	2.77	1.47	1.46	0.04
4-methyl-syringol		6.74	0.00	2.28	0.00	0.02	0.15
4-formyl-guaiacol (vanillin)		19.16	0.00	3.86	0.00	0.00	0.20
isoeugenol		1.68	0.09	0.01	0.00	0.14	1.00
acetovanillone		0.39	3.32	13.87	1.26	3.63	0.00
Other polar organic compounds							
maleic acid		64.13	0.46	25.65	0.00	9.03	0.00
cis-pinonic acid		20.77	0.41	1.95	0.19	1.80	5.55
syringaldehyde		0.96	0.00	0.00	0.00	0.00	0.18
myristoleic acid		3.09	0.58	4.91	2.50	0.45	2.97
palmitoleic acid		0.00	0.00	3.19	0.00	8.80	2.23
isostearic acid		0.62	1.05	2.40	0.44	0.68	1.43
traumatic acid		1.07	0.00	0.00	0.00	1.62	0.00
oleic acid		0.00	0.00	0.00	0.00	0.00	102.98
elaidic acid		3.22	0.73	2.63	0.00	0.17	1.44
8,15-pimaradien-18-oic acid		1.11	0.59	0.42	0.10	0.08	1.42
cholesterol		2.33	4.24	3.93	1.13	1.02	7.88

sitosterol		0.00	0.00	5.43	0.00	0.51	1.87
7-oxodehydroabiatic acid		4.39	0.42	11.26	0.39	0.00	3.02
Sampling Date		16-17 Oct	18-19 Oct	21-22 Oct	23-24 Oct	26-27 Oct	02-03 Nov
Alkanoic acids							
decanoic acid (c10)		0.04	4.75	1.95	3.13	6.06	0.76
undecanoic acid (c11)		2.23	0.58	0.25	0.58	1.71	0.46
dodecanoic (lauric) acid (c12)		0.55	0.00	0.00	0.00	4.32	1.38
tridecanoic acid (c13)		6.22	3.51	1.28	0.00	0.36	0.05
myristic acid (c14)		0.00	0.00	18.86	24.64	42.15	3.68
pentadecanoic acid (c15)		27.21	20.67	5.82	30.30	31.00	2.19
palmitic acid (c16)		0.00	0.00	0.00	0.00	0.00	22.67
heptadecanoic acid (c17)		0.00	9.12	7.20	0.00	7.63	2.29
stearic acid (c18)		0.00	0.00	0.00	19.64	5.12	80.97
nonadecanoic acid (c19)		6.66	0.00	5.21	131.11	136.44	13.95
eicosanoic acid (c20)		1.82	37.35	20.18	91.37	27.43	27.55
heneicosanoic acid (c21)		15.76	68.06	23.60	100.59	13.57	9.04
docosanoic acid (c22)		6.67	11.38	15.35	43.40	39.29	30.74
tricosanoic acid (c23)		26.03	53.21	20.23	45.02	30.40	19.72
tetracosanoic acid (c24)		3.10	17.96	19.54	69.33	58.90	53.36
n-Alkanedioic acid							
succinic acid (d-c4)		75.69	56.84	50.88	53.35	42.56	7.14
glutaric acid (d-c5)		22.61	46.49	16.81	63.35	20.93	1.66
hexanedioic (adipic) acid (d-c6)		1.20	0.10	0.77	2.71	3.53	0.97
heptanedioic (pimelic) acid (d-c7)		4.32	8.74	2.80	3.02	1.18	0.61
suberic acid (d-c8)		4.99	5.55	5.10	0.92	0.85	1.11

azelaic acid (d-c9)		0.00	0.00	0.00	18.84	17.68	12.33
sebacic acid (d-c10)		68.32	0.00	0.14	10.27	0.00	1.51
undecanedioic acid (d-c11)		59.34	53.19	58.11	9.70	2.72	1.14
dodecanedioic acid (d-c12)		41.89	36.70	39.99	4.57	0.10	0.52
1,11-undecanedicarboxylic acid (d-c13)		26.63	3.20	12.35	6.72	2.83	0.16
1,12-dodecanedicarboxylic acid (d-c14)		1.20	0.68	5.86	4.50	0.20	0.33
Methyl-alkanedioic acid							
methyl-malonic acid(d-c4)		44.92	13.07	65.84	13.94	0.02	0.00
methyl-succinic acid(d-c5)		7.26	11.69	7.93	26.15	9.70	0.62
2-methyl glutaric acid (d-c6)		7.62	11.21	14.83	3.91	1.70	0.29
3-methylglutaric acid (d-c6)		6.79	3.65	12.33	7.77	2.45	0.03
3-methyladipic acid (d-c7)		7.96	11.12	7.53	3.00	0.43	0.00
Anhydrosugar							
Levogluconan		3837.96	2594.22	4334.42	720.95	346.24	87.80
Aromatic monocarboxylic acid							
benzoic acid		252.51	366.07	212.49	66.51	47.61	1.25
salicylic acid		1.74	2.14	0.00	0.00	9.68	0.26
vanillic acid		0.25	0.42	0.25	1.58	0.02	0.63
homovanillic acid		0.34	1.66	1.05	0.12	0.45	0.03
syringic acid		0.78	0.50	1.06	2.09	1.38	0.39
pimaric acid		38.42	101.09	39.44	6.46	1.01	2.43
isopimaric acid		4.80	6.16	10.08	1.25	0.01	0.55
dehydroabietic acid		11.49	14.30	5.82	99.11	98.40	46.86
abietic acid		3.28	2.74	3.83	0.46	1.65	0.12
Aromatic dicarboxylic acid							

phthalic acid	0.25	0.00	1.72	1.72	5.10	5.12	0.25
isophthalic acid	0.00	0.00	0.00	0.00	1.13	1.65	0.00
Methoxylated phenol							
4-methyl-guaiacol	0.31	0.31	0.48	0.03	0.01	0.01	0.31
4-ethyl-guaiacol	0.04	0.34	0.20	0.01	0.06	0.00	0.04
syringol	0.07	0.41	0.14	0.02	0.19	0.00	0.07
4-allyl-guaiacol (eugenol)	0.03	1.20	0.04	0.05	0.02	0.00	0.03
4-methyl-syringol	0.70	0.93	1.13	0.00	0.02	0.01	0.70
4-formyl-guaiacol (vanillin)	0.05	0.04	0.00	0.00	0.05	0.02	0.05
isoeugenol	0.03	0.06	0.14	0.02	0.01	0.01	0.03
acetovanillone	0.00	0.90	0.00	0.76	2.70	1.52	0.00
Other polar organic compounds							
maleic acid	0.44	8.98	1.89	15.33	13.52	1.58	0.44
cis-pinonic acid	1.31	1.14	4.30	0.21	0.00	0.00	1.31
syringaldehyde	0.22	0.39	0.68	0.23	0.00	0.01	0.22
myristoleic acid	13.15	1.60	18.47	0.24	0.71	0.51	13.15
palmitoleic acid	3.01	2.57	6.40	29.49	38.41	0.31	3.01
isostearic acid	2.17	1.17	4.02	0.86	0.70	1.34	2.17
traumatic acid	4.14	1.79	6.46	4.63	0.16	1.60	4.14
oleic acid	0.00	0.00	4.81	0.08	3.54	4.25	0.00
elaidic acid	21.84	1.49	4.04	0.46	0.00	0.58	21.84
8,15-pimaradien-18-oic acid	7.13	5.62	1.60	0.59	0.15	0.19	7.13
cholesterol	0.00	1.88	0.04	6.67	13.96	1.41	0.00
sitosterol	0.97	0.00	0.81	0.00	0.00	1.19	0.97
7-oxodehydroabiatic acid	4.83	7.75	2.93	13.90	7.36	11.27	4.83

Sampling Date		05-06 Nov	09-10 Nov				
Alkanoic acids							
decanoic acid (c10)		1.34	1.16				
undecanoic acid (c11)		0.28	0.15				
dodecanoic (lauric) acid (c12)		1.38	1.32				
tridecanoic acid (c13)		0.18	0.16				
myristic acid (c14)		9.80	4.04				
pentadecanoic acid (c15)		6.99	1.90				
palmitic acid (c16)		48.24	23.20				
heptadecanoic acid (c17)		3.14	2.69				
stearic acid (c18)		45.32	72.47				
nonadecanoic acid (c19)		26.78	29.26				
eicosanoic acid (c20)		46.52	27.50				
heneicosanoic acid (c21)		38.28	9.45				
docosanoic acid (c22)		20.69	34.73				
tricosanoic acid (c23)		0.00	23.27				
tetracosanoic acid (c24)		33.25	58.35				
n-Alkanedioic acid							
succinic acid (d-c4)		45.04	6.01				
glutaric acid (d-c5)		20.28	2.14				
hexanedioic (adipic) acid (d-c6)		9.15	1.39				
heptanedioic (pimelic) acid (d-c7)		7.33	0.87				
suberic acid (d-c8)		3.07	0.74				
azelaic acid (d-c9)		30.14	17.52				
sebacic acid (d-c10)		8.88	0.12				

undecanedioic acid (d-c11)		7.49	1.35				
dodecanedioic acid (d-c12)		3.76	0.67				
1,11-undecanedicarboxylic acid (d-c13)		3.33	0.84				
1,12-dodecanedicarboxylic acid (d-c14)		0.29	0.18				
Methyl-alkanedioic acid							
methyl-malonic acid(d-c4)		1.53	0.00				
methyl-succinic acid(d-c5)		5.99	0.66				
2-methyl glutaric acid (d-c6)		1.26	0.16				
3-methylglutaric acid (d-c6)		1.27	0.15				
3-methyladipic acid (d-c7)		1.26	0.00				
Anhydrosugar							
Levogluconan		277.62	118.37				
Aromatic monocarboxylic acid							
benzoic acid		2.47	0.86				
salicylic acid		1.21	0.34				
vanillic acid		0.90	0.74				
homovanillic acid		0.08	0.15				
syringic acid		1.96	2.01				
pimaric acid		3.48	1.81				
isopimaric acid		0.00	4.76				
dehydroabietic acid		39.17	106.80				
abietic acid		0.00	1.54				
Aromatic dicarboxylic acid							
phthalic acid		12.82	5.99				
isophthalic acid		2.43	1.51				

Methoxylated phenol							
4-methyl-guaiacol		0.02	0.02				
4-ethyl-guaiacol		0.01	0.01				
syringol		0.00	0.01				
4-allyl-guaiacol (eugenol)		0.00	0.00				
4-methyl-syringol		0.04	0.01				
4-formyl-guaiacol (vanillin)		0.14	0.07				
isoeugenol		0.00	0.00				
acetovanillone		3.08	1.83				
Other polar organic compounds							
maleic acid		5.69	1.79				
cis-pinonic acid		0.01	0.01				
syringaldehyde		0.01	0.01				
myristoleic acid		0.95	0.26				
palmitoleic acid		0.00	0.28				
isostearic acid		0.91	1.35				
traumatic acid		1.67	1.53				
oleic acid		2.05	1.65				
elaidic acid		1.16	0.80				
8,15-pimaradien-18-oic acid		0.34	0.06				
cholesterol		2.01	1.64				
sitosterol		1.13	2.29				
7-oxodehydroabiatic acid		9.78	10.94				