Date : April 4, 2023

Certificate of Analysis – GC Profiling

Sample identification

Internal code : 23C13-NPA08
Customer identification : NPS00045 - Melissa officinalis - Bulgaria - lot#NP0101
Type : Essential oil
Source : *Melissa officinalis*
Customer : Nature Packaged

Analysis

Method: PC-MAT-014 ISO - Analysis of the composition of an essential oil or other volatile liquid by FAST GC-FID (in French); identifications validated by GC-MS.
Analyst : Sylvain Mercier, M. Sc., Chimiste 2014-005
Analysis date : March 20, 2023

Checked and approved by :

Alexis St-Gelais, Ph. D., Chimiste 2013-174

Notes: This report is digitally signed, it is only considered valid if the digital signature is intact. The results only describe the samples that were submitted to the assays.

This report is an update from the first version issued on March 27, 2023, to format it for online publication.

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PHYSICOCHEMICAL DATA

Physical aspect: Yellow liquid
Refractive index: 1.4927 ± 0.0003 (20 °C; method PC-MAT-016)

CONCLUSION

This sample contains linalyl acetate, lavandulol, and lavandulyl acetate which can be indicators of the presence of a small amount of lavender oil.

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Analysis summary – Consolidated contents

New readers of similar reports are encouraged to read table footnotes at least once.

Identification	%	Class
Ethanol	tr	Aliphatic alcohol
Isobutyral	tr	Aliphatic aldehyde
2-Methyl-3-buten-2-ol	0.01	Aliphatic alcohol
Isovaleral	0.02	Aliphatic aldehyde
2-Methylbutyral	0.01	Aliphatic aldehyde
2-Ethylfuran	0.01	Furan
Isoamyl alcohol	tr	Aliphatic alcohol
2-Methylbutanol	tr	Aliphatic alcohol
Hexanal	tr	Aliphatic aldehyde
Octane	0.01	Alkane
Unknown	0.01	Unknown
(2*E*)-Hexenal	0.01	Aliphatic aldehyde
(3*Z*)-Hexenol	0.01	Aliphatic alcohol
cis-1-Methyl-3-(1-methylethyl)-cyclopentane?	0.01	Normonoterpene
trans-1-Methyl-3-(1-methylethyl)-cyclopentane?	0.01	Normonoterpene
(2*E*)-Hexenol	tr	Aliphatic alcohol
Hexanol	0.01	Aliphatic alcohol
2-Methylbutyric acid	0.01	Aliphatic acid
trans-2,5-Diethyltetrahydrofuran	0.01	Furan
α-Pinene	0.04	Monoterpene
Camphene	0.01	Monoterpene
Benzaldehyde	0.01	Simple phenolic
Ethyl isohexanoate	0.01	Aliphatic ester
β-Pinene	0.02	Monoterpene
Sabinene	0.01	Monoterpene
Octen-3-ol	0.24	Aliphatic alcohol
6-Methyl-5-hepten-2-one	0.88	Aliphatic ketone
Octan-3-one	0.13	Aliphatic ketone
Myrcene	0.14	Monoterpene
6-Methyl-5-hepten-2-ol	0.02	Aliphatic alcohol
Octan-3-ol	0.03	Aliphatic alcohol
Octanal	0.01	Aliphatic aldehyde
Ethyl hexanoate	0.02	Aliphatic ester
Δ3-Carene	0.03	Monoterpene
(3*Z*)-Hexenyl acetate	0.06	Aliphatic ester
Hexyl acetate	0.03	Aliphatic ester
para-Cymene	0.02	Monoterpene
Limonene	0.24	Monoterpene
β-Phellandrene	0.02	Monoterpene
1,8-Cineole	0.02	Monoterpenic ether
Unknown	0.02	Unknown
(*Z*)-β-Ocimene	0.26	Monoterpene
(*E*)-β-Ocimene	2.03	Monoterpene
2,6-Dimethyl-5-heptenal (melonal)	0.04	Aliphatic aldehyde
γ-Terpinene	0.02	Monoterpene

cis-Linalool oxide (fur.)	0.01	Monoterpenic alcohol
Terpinolene isomer	0.01	Monoterpene
Terpinolene	0.02	Monoterpene
Rosefuran	0.10	Monoterpenic ether
Linalool	0.93	Monoterpenic alcohol
Nonanal	0.13	Aliphatic aldehyde
cis-Rose oxide	0.07	Monoterpenic ether
Unknown	0.03	Unknown
trans-Rose oxide	0.03	Monoterpenic ether
Melonol ?	0.02	Normonoterpene
Unknown	0.26	Unknown
neo-Isopulegol	0.08	Monoterpenic alcohol
trans-Chrysanthemal	0.37	Monoterpenic aldehyde
exo-Isocitral	0.04	Monoterpenic aldehyde
trans-Chrysanthemol	0.01	Monoterpenic alcohol
Citronellal	3.99	Monoterpenic aldehyde
iso-Isopulegol	0.02	Monoterpenic alcohol
(2*E*)-Nonenal	0.02	Aliphatic aldehyde
Borneol	0.03	Monoterpenic alcohol
Isoneral	0.27	Monoterpenic aldehyde
cis-Linalool oxide (pyr.)	0.01	Monoterpenic alcohol
Lavandulol	0.03	Monoterpenic alcohol
Terpinen-4-ol	0.11*	Monoterpenic alcohol
Rosefuran oxide	0.11*	Monoterpenic ether
Unknown	0.06	Oxygenated monoterpene
Isogeranial	0.43	Monoterpenic aldehyde
α-Terpineol	0.10	Monoterpenic alcohol
Methyl salicylate	0.03	Phenolic ester
trans-Isopiperitenol	0.01	Monoterpenic alcohol
Unknown	0.02	Oxygenated monoterpene
Unknown	0.06	Oxygenated monoterpene
Unknown	0.07	Oxygenated monoterpene
Nerol	0.57	Monoterpenic alcohol
Citronellol	0.54	Monoterpenic alcohol
Neral	13.60	Monoterpenic aldehyde
(*Z*)-Isogeraniol	0.07	Monoterpenic alcohol
Piperitone	0.04	Monoterpenic ketone
Linalyl acetate	0.36	Monoterpenic ester
Geraniol	1.13	Monoterpenic alcohol
Methyl citronellate	0.75	Monoterpenic ester
Geranial	19.89	Monoterpenic aldehyde
Unknown	0.11	Unknown
Unknown	0.17	Oxygenated monoterpene
Unknown	0.08	Oxygenated monoterpene
Lavandulyl acetate	0.12	Monoterpenic ester
Geranyl formate	0.06	Monoterpenic ester
Carvacrol	0.01	Monoterpenic alcohol
Methyl geranate	0.54	Monoterpenic ester
Citronellic acid	0.18	Monoterpenic acid
Neric acid	0.07	Monoterpenic acid
α-Cubebene	0.06	Sesquiterpene
Citronellyl acetate	0.06	Monoterpenic ester

Eugenol	0.03	Phenylpropanoid
Neryl acetate	0.14	Monoterpenic ester
Geranic acid	0.24	Aliphatic acid
α-Copaene	1.16	Sesquiterpene
1,5-diepi-β-Bourbonene	0.04	Sesquiterpene
β-Bourbonene	0.14	Sesquiterpene
β-Cubebene	0.41	Sesquiterpene
Geranyl acetate	1.74	Monoterpenic ester
β-Elemene	0.48	Sesquiterpene
Isocaryophyllene	0.08	Sesquiterpene
β-Caryophyllene	20.39	Sesquiterpene
β-Copaene	0.15	Sesquiterpene
(*Z*)-β-Farnesene?	0.01	Sesquiterpene
trans-α-Bergamotene	0.06	Sesquiterpene
Isogermacrene D	0.03	Sesquiterpene
α-Humulene	1.45	Sesquiterpene
allo-Aromadendrene	0.21	Sesquiterpene
cis-Muurola-4(15),5-diene	0.06	Sesquiterpene
(*E*)-β-Farnesene	0.44	Sesquiterpene
trans-Cadina-1(6),4-diene	0.05	Sesquiterpene
γ-Muurolene	0.18	Sesquiterpene
Germacrene D	8.78	Sesquiterpene
γ-Amorphene	0.06	Sesquiterpene
α-Selinene	0.11	Sesquiterpene
Bicyclogermacrene	0.21	Sesquiterpene
α-Muurolene	0.42	Sesquiterpene
(3*Z*,6*E*)-α-Farnesene	0.63	Sesquiterpene
Germacrene A	0.22	Sesquiterpene
γ-Cadinene	0.48	Sesquiterpene
(3*E*,6*E*)-α-Farnesene	0.47	Sesquiterpene
δ-Cadinene	1.64	Sesquiterpene
trans-Cadina-1,4-diene	0.04	Sesquiterpene
α-Cadinene	0.12	Sesquiterpene
Isocaryophyllene epoxide B	0.12	Sesquiterpenic ether
(*E*)-Nerolidol	0.05	Sesquiterpenic alcohol
Germacrene D-4-ol	0.40	Sesquiterpenic alcohol
Caryophyllene oxide	1.61	Sesquiterpenic ether
Caryophyllene oxide isomer	0.17	Sesquiterpenic ether
Fokienol	0.06	Terpenic alcohol
Humulene epoxide II	0.13	Sesquiterpenic ether
10-epi-Cubenol	0.04	Sesquiterpenic alcohol
Junenol	0.07	Sesquiterpenic alcohol
Caryophylladienol I	0.08	Sesquiterpenic alcohol
Caryophylladienol II	0.03	Sesquiterpenic alcohol
τ-Muurolol	0.30	Sesquiterpenic alcohol
τ-Cadinol	0.35	Sesquiterpenic alcohol
α-Muurolol	0.15	Sesquiterpenic alcohol
α-Cadinol	0.67	Sesquiterpenic alcohol
(3*Z*)-Caryophylla-3,8(13)-dien-5β-ol	0.09	Sesquiterpenic alcohol
Germacra-4(15),5,10(14)-trien-1-ol isomer	0.01	Sesquiterpenic alcohol
Germacra-4(15),5,10(14)-trien-1α-ol	0.06	Sesquiterpenic alcohol
Heptadecane	0.04	Alkane

Mint sulfide?	0.03	Sesquiterpenic sulfide
Eremophilone	0.03	Sesquiterpenic ketone
(2*E*,6*E*)-Farnesal	0.02	Sesquiterpenic aldehyde
Unknown	0.02	Oxygenated sesquiterpene
Benzyl benzoate	0.04	Phenolic ester
14-Hydroxy-δ-cadinene	0.06	Sesquiterpenic alcohol
Unknown	0.04	Unknown
Phytone	0.05	Terpenic ketone
Unknown	0.05	Oxygenated sesquiterpene
(9*Z*)-Nonadecene	0.03	Alkene
Unknown	0.04	Unknown
Nonadecane	0.09	Alkane
Geranyl-para-cymene	0.11	Diterpene
Unknown	0.08	Unknown
Eicosane	0.01	Alkane
Unknown	0.09	Unknown
Unknown	0.04	Unknown
Unknown	0.02	Unknown
Heneicosane	0.07	Alkane
6-Methyl-4,6-bis(4-methylpent-3-en-1-yl)cyclohexa-1,3-dienecarbaldehyde?	0.02	Diterpenic aldehyde
Unknown	0.03	Unknown
Unknown	0.06	Unknown
Pentacosane	0.02	Alkane
Heptacosane	0.01	Alkane
Consolidated total	**96.47%**	

*: Individual compounds concentration could not be found due to overlapping coelutions on columns considered
[xx]: Duplicate percentage due to coelutions, not taken into account in the consolidated total
tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied

About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm is set to prioritize data from the most standard DB-5 column, and smallest values so as to avoid overestimating individual content. This process is semi-automatic. Advanced users are invited to consult the "Full analysis data" table after the chromatograms in this report to access the full untreated data and perform their own calculations if needed.

Unknowns: Unknown compounds' mass spectral data is presented in the "Full analysis data" table. The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion.

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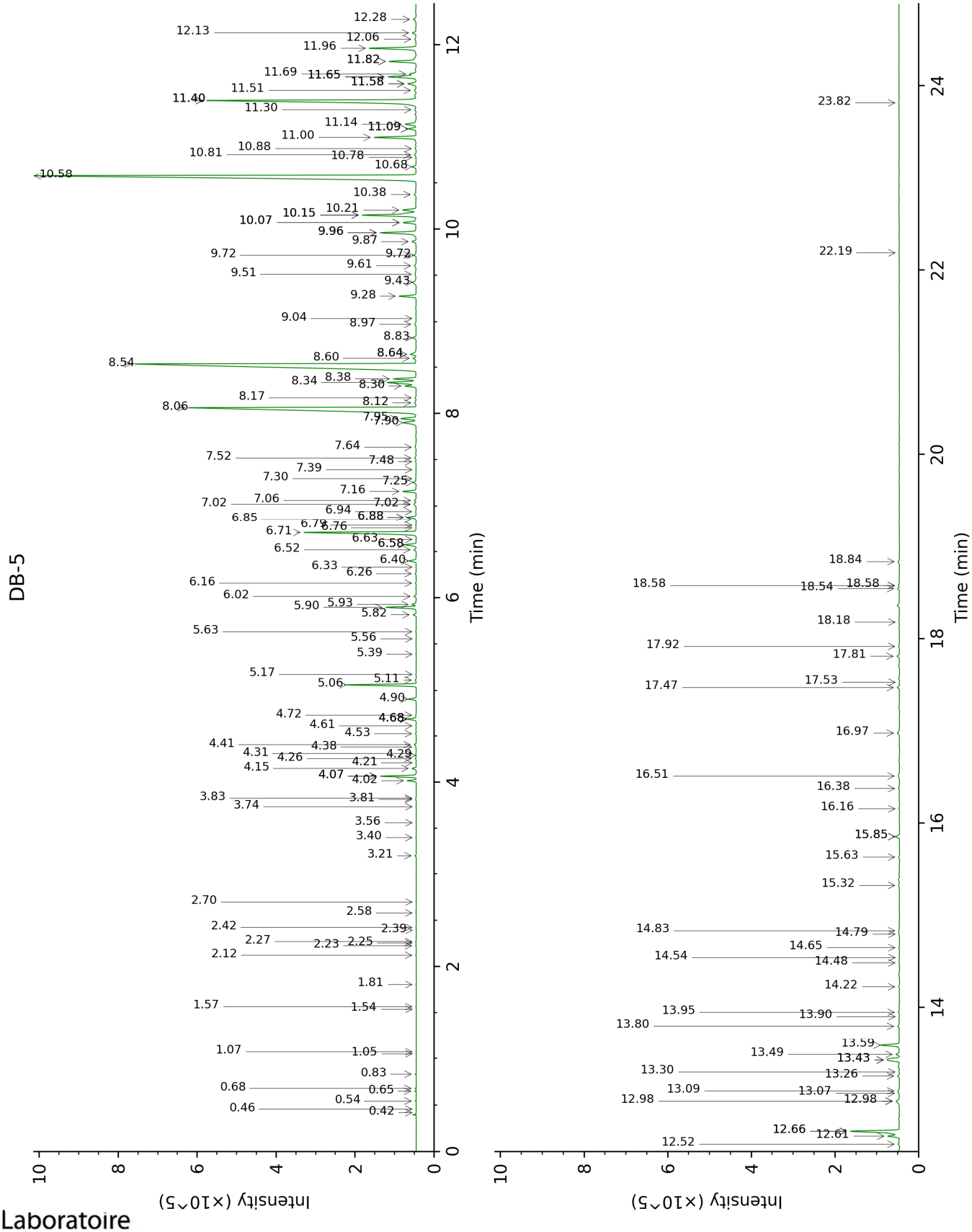
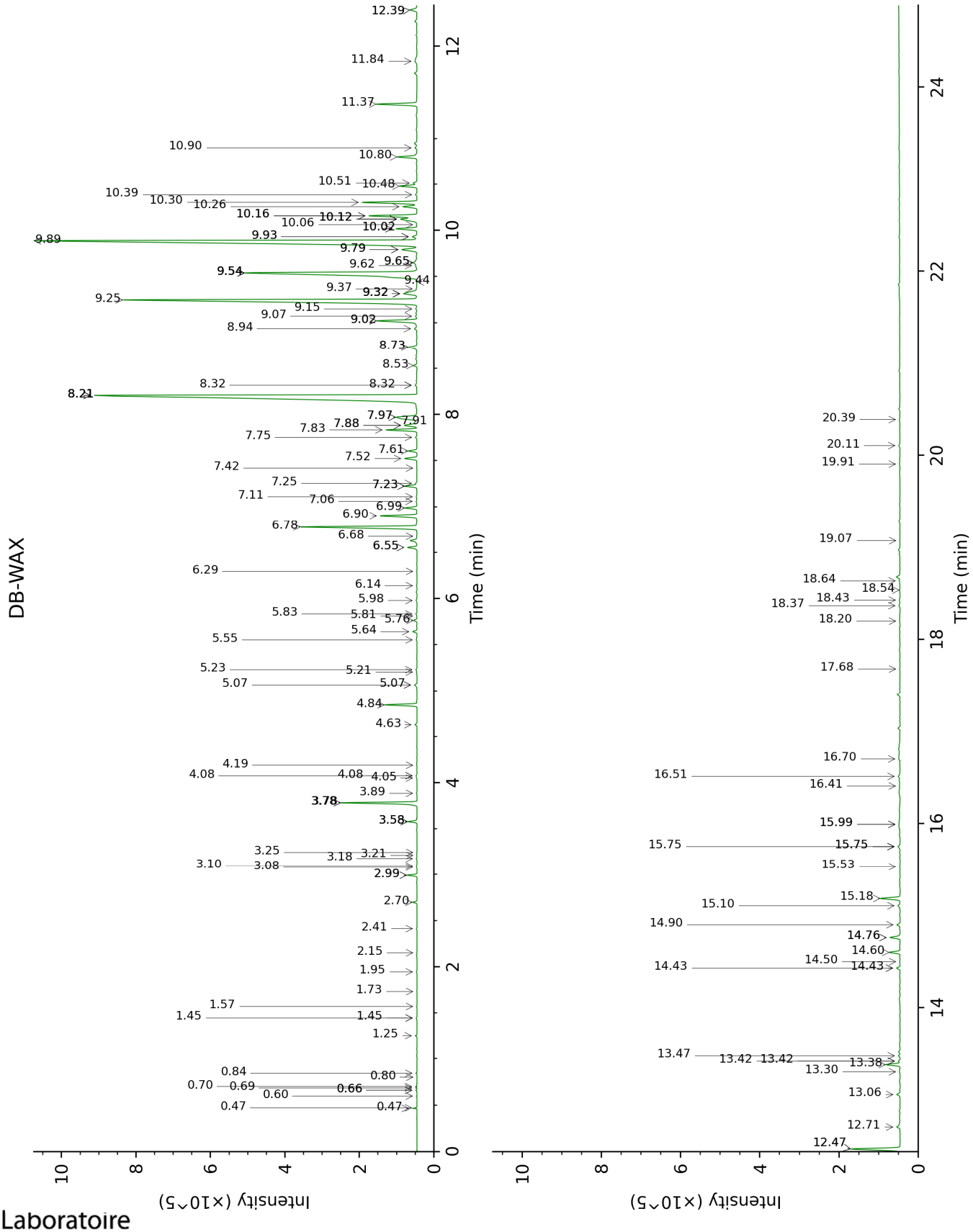

DB-5
Time (min)
Intensity (×10^5)
12.28
12.13
12.06
11.96
11.82
11.69
11.65
11.58
11.51
11.40
11.30
11.14
11.09
11.00
10.88
10.81
10.78
10.68
10.58
10.38
10.21
10.15
10.07
9.96
9.87
9.72
9.72
9.61
9.51
9.43
9.28
9.04
8.97
8.83
8.64
8.60
8.54
8.38
8.34
8.30
8.17
8.12
8.06
7.95
7.90
7.64
7.52
7.48
7.39
7.30
7.25
7.16
7.06
7.02
7.02
6.94
6.88
6.85
6.79
6.76
6.71
6.63
6.58
6.52
6.40
6.33
6.26
6.16
6.02
5.93
5.90
5.82
5.63
5.56
5.39
5.17
5.11
5.06
4.90
4.72
4.68
4.61
4.53
4.41
4.38
4.31
4.29
4.26
4.21
4.15
4.07
4.02
3.83
3.81
3.74
3.56
3.40
3.21
2.70
2.58
2.42
2.39
2.27
2.25
2.23
2.12
1.81
1.57
1.54
1.07
1.05
0.83
0.68
0.65
0.54
0.46
0.42
23.82
22.19
18.84
18.58
18.58
18.54
18.18
17.92
17.81
17.47
17.53
16.97
16.51
16.38
16.16
15.85
15.63
15.32
14.83
14.79
14.65
14.54
14.48
14.22
13.95
13.90
13.80
13.59
13.49
13.43
13.30
13.26
13.09
13.07
12.98
12.98
12.66
12.61
12.52


DB-WAX
Intensity (×10^5)
Time (min)
12.39
11.84
11.37
10.90
10.80
10.51
10.48
10.39
10.30
10.26
10.16
10.12
10.06
10.02
9.89
9.93
9.79
9.62
9.65
9.54
9.44
9.37
9.32
9.25
9.15
9.07
9.02
8.94
8.73
8.53
8.32
8.32
8.21
7.97
7.91
7.88
7.83
7.75
7.61
7.52
7.42
7.25
7.23
7.11
7.06
6.99
6.90
6.78
6.68
6.55
6.29
6.14
5.98
5.83
5.81
5.76
5.64
5.55
5.23
5.21
5.07
5.07
4.84
4.63
4.19
4.08
4.08
4.05
3.89
3.78
3.58
3.25
3.18
3.21
3.10
3.08
2.99
2.70
2.41
2.15
1.95
1.73
1.57
1.45
1.45
1.25
0.84
0.80
0.70
0.69
0.66
0.60
0.47
0.47
20.39
20.11
19.91
19.07
18.64
18.54
18.37
18.43
18.20
17.68
16.70
16.51
16.41
15.99
15.75
15.75
15.53
15.18
15.10
14.90
14.76
14.60
14.50
14.43
14.43
13.47
13.42
13.42
13.38
13.30
13.06
12.71
12.47

FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
Ethanol	0.42	508	tr	0.80	911	tr
Isobutyral	0.46	539	tr	0.47	784	0.04
2-Methyl-3-buten-2-ol	0.54	606	0.01	1.45*	1013	0.02
Isovaleral	0.65	641	0.02	0.70	888	0.02
2-Methylbutyral	0.68	651	0.01	0.69	881	0.01
2-Ethylfuran	0.83	701	0.01	0.84	919	0.01
Isoamyl alcohol	1.05	733	tr	3.21	1176	0.01
2-Methylbutanol	1.07	736	tr	3.24	1179	0.01
Hexanal	1.54	799	tr	1.73	1043	tr
Octane	1.57	803	0.01	0.47	789	0.01
Unknown [m/z 81, 69 (80), 41 (65), 83 (52), 109 (48), 55 (47)...]	1.81	823	0.01	0.60	846	0.01
(2*E*)-Hexenal	2.12	849	0.01	3.18	1173	0.02
(3*Z*)-Hexenol	2.22	857	0.01	5.55	1348	0.03
cis-1-Methyl-3-(1-methylethyl)-cyclopentane?	2.26	860	0.01	0.66*	872	0.02
trans-1-Methyl-3-(1-methylethyl)-cyclopentane?	2.27	861	0.01	0.66*	872	[0.02]
(2*E*)-Hexenol	2.39	871	tr	5.81	1367	0.01
Hexanol	2.42	873	0.01	5.21	1323	0.01
2-Methylbutyric acid	2.58	886	0.01	9.44	1646	0.02
trans-2,5-Diethyltetrahydrofuran	2.70	896	0.01	1.45*	1013	[0.02]
α-Pinene	3.21	931	0.04	1.26	991	0.03
Camphene	3.40	944	0.01	1.57	1026	0.01
Benzaldehyde	3.56	954	0.01	7.06	1459	0.04
Ethyl isohexanoate	3.74	966	0.01	2.99*	1158	0.25
β-Pinene	3.82†	971	0.04	1.95	1065	0.02
Sabinene	3.83†	972	[0.04]	2.15	1087	0.01
Octen-3-ol	4.02	984	0.24	6.55*	1421	0.29
6-Methyl-5-hepten-2-one	4.07*	987	1.02	4.84	1304	0.88
Octan-3-one	4.07*	987	[1.02]	3.78*	1222	2.16
Myrcene	4.15	993	0.14	2.70	1134	0.11
6-Methyl-5-hepten-2-ol	4.21	997	0.02	6.68	1430	0.01
Octan-3-ol	4.26	1000	0.03	5.84	1368	0.03
Octanal	4.29	1002	0.01	4.19	1253	0.01
Ethyl hexanoate	4.31	1003	0.02	3.58*	1206	0.26
Δ3-Carene	4.38	1008	0.03	2.41	1111	0.02
(3*Z*)-Hexenyl acetate	4.41	1010	0.06	4.63	1287	0.06
Hexyl acetate	4.52	1017	0.03	4.05	1242	0.02
para-Cymene	4.61	1022	0.02	3.89	1230	0.02
Limonene	4.68*	1027	0.29	2.99*	1158	[0.25]
β-Phellandrene	4.68*	1027	[0.29]	3.08	1165	0.02

1,8-Cineole	4.68*	1027	[0.29]	3.10	1167	0.02
Unknown [m/z 59, 43 (16), 41 (13), 109 (12), 127 (8), 55 (8)...]	4.72	1029	0.02	6.14	1391	0.02
(*Z*)-β-Ocimene	4.90	1040	0.26	3.58*	1206	[0.26]
(*E*)-β-Ocimene	5.06	1050	2.03	3.78*	1222	[2.16]
2,6-Dimethyl-5-heptenal (melonal)	5.11	1054	0.04	5.07*	1312	0.09
γ-Terpinene	5.17	1057	0.02	3.58*	1206	[0.26]
cis-Linalool oxide (fur.)	5.39	1071	0.01	6.30	1402	0.01
Terpinolene isomer	5.56	1081	0.01	4.08*	1244	0.03
Terpinolene	5.64	1086	0.02	4.08*	1244	[0.03]
Rosefuran	5.82	1098	0.10	5.76	1363	0.11
Linalool	5.90	1103	0.93	7.83	1518	0.95
Nonanal	5.93	1105	0.13	5.64	1354	0.13
cis-Rose oxide	6.02	1110	0.07	5.07*	1312	[0.09]
Unknown [m/z 81, 79 (19), 41 (12), 92 (8), 77 (8)...]	6.16	1119	0.03	5.98	1379	0.04
trans-Rose oxide	6.26	1126	0.03	5.23	1324	0.04
Melonol ?	6.33	1130	0.02			
Unknown [m/z 95, 67 (86), 41 (68), 82 (64), 123 (62)...]	6.40	1134	0.26	7.23*	1472	0.40
neo-Isopulegol	6.52	1142	0.08	7.91	1524	0.05
trans-Chrysanthemal	6.58*	1146	0.39	6.99	1454	0.37
exo-Isocitral	6.58*	1146	[0.39]	7.26	1474	0.04
trans-Chrysanthemol	6.63	1149	0.01	9.32*	1636	0.69
Citronellal	6.71	1154	3.99	6.78	1438	3.85
iso-Isopulegol	6.76	1157	0.02	7.75	1512	0.05
(2*E*)-Nonenal	6.79	1159	0.02	7.42	1486	0.01
Borneol	6.85	1163	0.03	9.54*	1654	9.50
Isoneral	6.88*	1165	0.29	7.61	1500	0.27
cis-Linalool oxide (pyr.)	6.88*	1165	[0.29]	10.06	1697	0.01
Lavandulol	6.94	1169	0.03	9.37	1640	0.04
Terpinen-4-ol	7.02*	1174	0.11	8.32*	1556	0.08
Rosefuran oxide	7.02*	1174	[0.11]	8.32*	1556	[0.08]
Unknown [m/z 84, 83 (74), 137 (56), 41 (47), 93 (43), 108 (40)... 152 (2)]	7.06	1177	0.06	9.32*	1636	[0.69]
Isogeranial	7.16	1183	0.43	7.97*	1529	1.14
α-Terpineol	7.26	1189	0.10	9.54*	1654	[9.50]
Methyl salicylate	7.30	1192	0.03	10.16*	1705	1.62
trans-Isopiperitenol	7.39	1198	0.01	10.12*	1702	0.76
Unknown [m/z 84, 41 (83), 83 (79), 91 (76), 93 (67), 119 (64), 137 (63), 109 (54), 108 (54)... 152 (4)]	7.48	1203	0.02	9.93*	1686	0.17
Unknown [m/z 123, 81 (40), 67 (29), 79 (29), 93	7.52	1206	0.06			

(26), 121 (25), 41 (24), 55 (18), 69 (15)...]						
Unknown [m/z 107, 79 (99), 91 (57), 94 (54), 135 (44), 150 (44)]	7.64	1214	0.07			
Nerol	7.90	1231	0.57	10.80	1760	0.67
Citronellol	7.95	1234	0.54	10.48	1732	0.55
Neral	8.06	1242	13.60	9.25	1630	13.68
(*Z*)-Isogeraniol	8.12	1246	0.07	10.90	1768	0.08
Piperitone	8.17	1249	0.04	9.62	1660	0.06
Linalyl acetate	8.30	1258	0.36	7.88*	1522	0.51
Geraniol	8.34	1260	1.13	11.37	1809	1.29
Methyl citronellate	8.38	1263	0.75	7.97*	1529	[1.14]
Geranial	8.54	1274	19.89	9.89	1682	19.92
Unknown [m/z 59, 81 (60), 43 (57), 84 (42), 127 (32), 85 (30)...]	8.60	1278	0.11			
Unknown [m/z 43, 69 (77), 41 (70), 109 (54)... 152 (6)]	8.64*	1281	0.25	12.71	1929	0.17
Unknown analog	8.64*	1281	[0.25]			
Lavandulyl acetate	8.83	1293	0.12	8.53	1573	0.11
Geranyl formate	8.97	1303	0.06	9.65*	1663	0.18
Carvacrol	9.04	1307	0.01	15.10	2160	0.10
Methyl geranate	9.28	1324	0.54	9.54*	1654	[9.50]
Citronellic acid	9.43	1335	0.18	15.99*†	2252	0.20
Neric acid	9.51	1341	0.07			
α-Cubebene	9.61	1347	0.06	6.55*	1421	[0.29]
Citronellyl acetate	9.72*	1355	0.08	9.15	1622	0.06
Eugenol	9.72*	1355	[0.08]	14.50	2099	0.03
Neryl acetate	9.87	1366	0.14	9.93*	1686	[0.17]
Geranic acid	9.96*	1372	1.37	16.70	2327	0.24
α-Copaene	9.96*	1372	[1.37]	6.90	1448	1.16
1,5-diepi-β-Bourbonene	10.07*	1380	0.44	7.11	1463	0.04
β-Bourbonene	10.07*	1380	[0.44]	7.23*	1472	[0.40]
β-Cubebene	10.15*	1386	2.13	7.52	1494	0.41
Geranyl acetate	10.15*	1386	[2.13]	10.30	1717	1.74
β-Elemene	10.21	1390	0.48	8.21*	1547	20.83
Isocaryophyllene	10.38	1402	0.08	7.88*	1522	[0.51]
β-Caryophyllene	10.58	1416	20.39	8.21*	1547	[20.83]
β-Copaene	10.68	1424	0.15	8.21*	1547	[20.83]
(*Z*)-β-Farnesene?	10.78	1432	0.01	8.94	1605	0.10
trans-α-Bergamotene	10.81	1434	0.06	8.21*	1547	[20.83]
Isogermacrene D	10.88	1439	0.03	8.73*	1588	0.36
α-Humulene	11.00	1448	1.45	9.02*	1612	1.48
allo-Aromadendrene	11.09*	1455	0.26	8.73*	1588	[0.36]
cis-Muurola-4(15),5-diene	11.09*	1455	[0.26]	9.07	1616	0.06
(*E*)-β-Farnesene	11.14	1458	0.44	9.32*	1636	[0.69]
trans-Cadina-1(6),4-diene	11.30	1470	0.05	9.02*	1612	[1.48]

γ-Muurolene	11.40*	1478	9.18	9.32*	1636	[0.69]
Germacrene D	11.40*	1478	[9.18]	9.54*	1654	[9.50]
γ-Amorphene	11.51	1486	0.06	9.54*	1654	[9.50]
α-Selinene	11.58*	1491	0.32	9.65*	1663	[0.18]
Bicyclogermacrene	11.58*	1491	[0.32]	9.79*	1674	0.63
α-Muurolene	11.66*	1496	1.09	9.79*	1674	[0.63]
(3*Z*,6*E*)-α-Farnesene	11.66*	1496	[1.09]	10.02*	1693	0.67
Germacrene A	11.69	1499	0.22	10.12*	1702	[0.76]
γ-Cadinene	11.82*	1509	0.95	10.12*	1702	[0.76]
(3*E*,6*E*)-α-Farnesene	11.82*	1509	[0.95]	10.26	1713	0.47
δ-Cadinene	11.96	1520	1.64	10.16*	1705	[1.62]
trans-Cadina-1,4-diene	12.06	1528	0.04	10.39	1724	0.05
α-Cadinene	12.13	1533	0.12	10.51	1735	0.12
Isocaryophyllene epoxide B	12.28	1545	0.12	11.84	1850	0.17
(*E*)-Nerolidol	12.52	1564	0.05	13.47	2000	0.06
Germacrene D-4-ol	12.61	1571	0.40	13.38	1991	0.46
Caryophyllene oxide	12.66*	1575	1.88	12.47*	1907	1.64
Caryophyllene oxide isomer	12.66*	1575	[1.88]	12.39*	1900	0.27
Fokienol	12.98*	1600	0.19	14.76*	2126	0.36
Humulene epoxide II	12.98*	1600	[0.19]	13.06	1961	0.13
10-epi-Cubenol	13.07	1607	0.04	13.42*	1995	0.06
Junenol	13.09	1609	0.07	13.30	1984	0.05
Caryophylladienol I	13.26	1622	0.08	15.75*	2226	0.09
Caryophylladienol II	13.30	1626	0.03	15.75*	2226	[0.09]
τ-Muurolol	13.43*	1637	0.70	14.76*	2126	[0.36]
τ-Cadinol	13.43*	1637	[0.70]	14.60	2109	0.35
α-Muurolol	13.49	1642	0.15	14.90	2139	0.11
α-Cadinol	13.59	1650	0.67	15.18	2168	0.66
(3*Z*)-Caryophylla-3,8(13)-dien-5β-ol	13.80	1667	0.09	16.51	2306	0.07
Germacra-4(15),5,10(14)-trien-1-ol isomer	13.90	1676	0.01	16.41	2295	0.04
Germacra-4(15),5,10(14)-trien-1α-ol	13.95	1680	0.06	15.75*	2226	[0.09]
Heptadecane	14.22	1702	0.04	10.02*	1693	[0.67]
Mint sulfide?	14.48	1725	0.03			
Eremophilone	14.54	1730	0.03	15.99*†	2252	[0.20]
(2*E*,6*E*)-Farnesal	14.65	1739	0.02	15.53	2203	0.02
Unknown [m/z 91, 177 (75), 79 (68), 105 (65), 93 (62), 159 (60)...220 (16)]	14.79	1751	0.02	17.68	2434	0.01
Benzyl benzoate	14.83	1755	0.04	18.54	2531	0.03
14-Hydroxy-δ-cadinene	15.32	1797	0.06	18.43	2519	0.03
Unknown [m/z 123, 191 (88), 81 (86), 41 (86), 151 (80), 91 (76)...]	15.63	1825	0.04	18.37	2512	0.05

Phytone	15.85*	1845	0.16	14.43*	2092	0.12
Unknown [m/z 43, 107 (97), 81 (83), 121 (77), 123 (74), 93 (73)... 220 (26)...]	15.85*	1845	[0.16]	20.11	2718	0.05
(9*Z*)-Nonadecene	16.16	1873	0.03	12.47*	1907	[1.64]
Unknown [m/z 123, 81 (96), 41 (74), 43 (64), 91 (62), 95 (57)...]	16.38	1893	0.04	20.39	2753	0.03
Nonadecane	16.51	1905	0.09	12.39*	1900	[0.27]
Geranyl-para-cymene	16.97	1949	0.11			
Unknown [m/z 41, 69 (95), 109 (41), 95 (39), 55 (36), 121 (36)...]	17.47	1996	0.08			
Eicosane	17.53	2002	0.01	13.42*	1995	[0.06]
Unknown [m/z 69, 41 (90), 95 (49), 109 (43), 219 (43), 55 (30)...]	17.81	2030	0.09			
Unknown [m/z 69, 41 (94), 81 (42), 109 (39), 107 (33), 43 (31)...]	17.92	2040	0.04			
Unknown [m/z 93, 69 (95), 135 (76), 107 (53), 41 (53), 109 (50)... 235 (10)...]	18.18	2066	0.02			
Heneicosane	18.54	2102	0.07	14.43*	2092	[0.12]
6-Methyl-4,6-bis(4-methylpent-3-en-1-yl)cyclohexa-1,3-dienecarbaldehyde?	18.58*	2105	0.04	19.07	2593	0.02
Unknown [m/z 69, 41 (37), 81 (23), 95 (19), 109 (18)...]	18.58*	2105	[0.04]	18.64	2543	0.03
Unknown [m/z 69, 41 (38), 151 (36), 123 (34), 82 (24), 43 (23), 109 (21)...]	18.84	2132	0.06			
Pentacosane	22.19	2501	0.02	18.20	2492	0.02
Heptacosane	23.82	2701	0.01	19.91	2694	0.03
Total identified		**96.12%**			**95.49%**	
Total reported		**97.17%**			**95.91%**	

*: Two or more compounds are coeluting on this column
[xx]: Duplicate percentage due to coelutions, not taken into account in the consolidated total
†: Peaks apexes were resolved, but peaks overlapped and were summed for analysis
tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied
R.T.: Retention time (minutes)
R.I.: Retention index