

Date : 2026-09-17

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 26D29-PTH04

Customer Identification : Basil Linalool - Egypt - B10115

Type : Essential Oil

Source : *Ocimum basilicum* ct. Linalool

Customer : Plant Therapy

Checked and approved by:

Sylvain Mercier, M. Sc., Chimiste 2014-005

Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia. 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. The compliance status of the sample is provided to facilitate the reading of the report. The client remains ultimately responsible for reviewing the results presented within this report and to establish compliance of the tested batch against relevant quality criteria.

This report is an update of the version first issued on 2026-05-01 to make a modification in the sample identification section.

GAS CHROMATOGRAPHIC ANALYSIS

Method : PC-MAT-014 - Analysis of the composition of an essential oil or other volatile liquide by FAST GC-FID

✖ISO

Results : See analysis summary (next page)

Analyst : Sylvain Mercier, M. Sc., Chimiste 2014-005

Date : 2026-04-30

PHYSICOCHEMICAL DATA

Refractive index : 1.4769 ± 0.0003 (20 °C)

Method : PC-MAT-016 - Measure of the refractive index of a liquid.

Analyst : Cindy Caron B. Sc.

Date : 2026-04-29

CONCLUSION

No adulterant, contaminant or diluent has been detected using this method.

ANALYSIS SUMMARY - CONSOLIDATED CONTENTS

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

Identification	%	Class
Isovaleral	tr	Aliphatic aldehyde
2-Methylbutyral	tr	Aliphatic aldehyde
2-Ethylfuran	tr	Furan
Isoamyl alcohol	0.01	Aliphatic alcohol
(2E)-Hexenal	0.01	Aliphatic aldehyde
(3Z)-Hexenol	0.02	Aliphatic alcohol
Hexanol	0.01	Aliphatic alcohol
Hashishene	0.02	Monoterpene
Tricyclene	0.01	Monoterpene
α -Thujene	0.05	Monoterpene
α -Pinene	0.57	Monoterpene
Camphene	0.12	Monoterpene
Thuja-2,4(10)-diene	0.01	Monoterpene
Benzaldehyde	0.03	Simple phenolic
Sabinene	0.50	Monoterpene
β -Pinene	1.07	Monoterpene
Octen-3-ol	0.05	Aliphatic alcohol
Octan-3-one	0.06	Aliphatic ketone
Myrcene	1.00	Monoterpene
α -Phellandrene	0.01	Monoterpene
Pseudolimonene	0.01	Monoterpene
Δ^3 -Carene	0.02	Monoterpene
(3Z)-Hexenyl acetate	0.04	Aliphatic ester
α -Terpinene	0.07	Monoterpene
<i>meta</i> -Cymene	0.01	Monoterpene
<i>para</i> -Cymene	0.22	Monoterpene
Limonene	0.44	Monoterpene
1,8-Cineole	9.80	Monoterpenic ether
(Z)- β -Ocimene	0.05	Monoterpene
(E)- β -Ocimene	0.41	Monoterpene
γ -Terpinene	0.05	Monoterpene
<i>cis</i> -Sabinene hydrate	0.15	Monoterpenic alcohol
<i>cis</i> -Linalool oxide (fur.)	0.08	Monoterpenic alcohol
Octanol	0.02	Aliphatic alcohol
<i>trans</i> -Linalool oxide (fur.)	0.08	Monoterpenic alcohol
Terpinolene	0.10	Monoterpene
6,7-Epoxyterpinene	0.04	Monoterpenic ether
Linalool	47.16	Monoterpenic alcohol
Phenylethyl alcohol	0.04	Simple phenolic
Octen-3-yl acetate	0.08	Aliphatic ester

<i>cis</i> -para-Menth-2-en-1-ol	0.03	Monoterpenic alcohol
Limona ketone	0.01	Normonoterpenic ketone
(Z)-Myroxide	0.02	Monoterpenic ether
Camphor	0.51	Monoterpenic ketone
(E)-Myroxide	0.14	Monoterpenic ether
Isomenthone	0.04	Monoterpenic ketone
Borneol	0.12	Monoterpenic alcohol
δ -Terpineol	0.18	Monoterpenic alcohol
Terpinen-4-ol	0.55	Monoterpenic alcohol
<i>para</i> -Cymen-8-ol	0.04	Monoterpenic alcohol
α -Terpineol	0.95	Monoterpenic alcohol
Hodiendiol (2,6-dimethylocta-3,7-diene-2,6-diol)	0.14	Monoterpenic alcohol
Methylchavicol	1.02	Phenylpropanoid
(3E,5E)-2,6-Dimethylocta-3,5,7-trien-2-ol	0.06	Monoterpenic alcohol
Octyl acetate	0.26	Aliphatic ester
Nerol	0.03	Monoterpenic alcohol
Citronellol	0.22	Monoterpenic alcohol
Unknown	0.01	Oxygenated monoterpene
Carvone	0.01	Monoterpenic ketone
Linalyl acetate	tr	Monoterpenic ester
Geraniol	0.20	Monoterpenic alcohol
Chavicol	0.04	Phenylpropanoid
Geranial	0.03	Monoterpenic aldehyde
Citronellyl formate	0.03	Monoterpenic ester
Unknown	0.05	Unknown
Bornyl acetate	1.13	Monoterpenic ester
Lavandulyl acetate	0.02	Monoterpenic ester
<i>trans</i> -Pinocarvyl acetate	0.02	Monoterpenic ester
Geranyl formate	0.03	Monoterpenic ester
δ -Elemene isomer	0.03	Sesquiterpene
exo-2-Hydroxycineole acetate	0.10	Monoterpenic ester
α -Cubebene	0.10	Sesquiterpene
Eugenol	5.04	Phenylpropanoid
Neryl acetate	0.02	Monoterpenic ester
α -Copaene	0.18	Sesquiterpene
β -Bourbonene	0.30	Sesquiterpene
<i>cis</i> - β -Elemene	0.08	Sesquiterpene
Geranyl acetate	0.03	Monoterpenic ester
β -Cubebene	0.07	Sesquiterpene
β -Elemene	2.16	Sesquiterpene
Unknown	0.09	Unknown
α -Cedrene	0.12	Sesquiterpene
α -Gurjunene	0.01	Sesquiterpene
Methyleugenol	0.13	Phenylpropanoid

β -Caryophyllene	0.39	Sesquiterpene
β -Copaene	0.05	Sesquiterpene
β -Gurjunene	0.13	Sesquiterpene
α -Guaiene	[5.59]	Sesquiterpene
<i>trans</i> - α -Bergamotene	[5.59]	Sesquiterpene
Aromadendrene	0.05	Sesquiterpene
<i>cis</i> -Muurolo-3,5-diene	0.04	Sesquiterpene
<i>cis</i> - β -Bergamotene?	0.13	Sesquiterpene
α -Humulene	0.78	Sesquiterpene
allo-Aromadendrene	0.01	Sesquiterpene
(<i>E</i>)- β -Farnesene	0.25	Sesquiterpene
<i>cis</i> -Muurolo-4(15),5-diene	0.44	Sesquiterpene
γ -Gurjunene	0.07	Sesquiterpene
γ -Muurolole	0.06	Sesquiterpene
Germacrene D	2.48	Sesquiterpene
β -Selinene	0.14	Sesquiterpene
allo-Aromadendr-9-ene	[0.43]	Sesquiterpene
<i>trans</i> - β -Bergamotene	[0.43]	Sesquiterpene
Bicyclogermacrene	0.80	Sesquiterpene
Viridiflorene	0.04	Sesquiterpene
α -Muurolole	0.16	Sesquiterpene
(<i>Z</i>)- α -Bisabolene	0.52	Sesquiterpene
δ -Guaiene	1.08	Sesquiterpene
(<i>Z</i>)- γ -Bisabolene	0.10	Sesquiterpene
γ -Cadinene	2.46	Sesquiterpene
β -Bisabolene	0.09	Sesquiterpene
<i>trans</i> -Calamenene	0.29	Sesquiterpene
δ -Cadinene	0.16	Sesquiterpene
β -Sesquiphellandrene	0.17	Sesquiterpene
10-epi-Cubebol?	0.11	Sesquiterpenic alcohol
α -Cadinene	0.07	Sesquiterpene
Salviadienol?	0.05	Sesquiterpenic alcohol
Maaliol	0.14	Sesquiterpenic alcohol
(<i>E</i>)-Nerolidol	0.15	Sesquiterpenic alcohol
Spathulenol	0.32	Sesquiterpenic alcohol
Caryophyllene oxide	0.02	Sesquiterpenic ether
Globulol	0.04	Sesquiterpenic alcohol
Viridiflorol	0.03	Sesquiterpenic alcohol
Humulene epoxide II	0.06	Sesquiterpenic ether
1,10-diepi-Cubenol	0.46	Sesquiterpenic alcohol
10-epi- γ -Eudesmol	0.05	Sesquiterpenic alcohol
τ -Cadinol	2.36	Sesquiterpenic alcohol
β -Eudesmol	0.13	Sesquiterpenic alcohol
α -Eudesmol	0.09	Sesquiterpenic alcohol
α -Cadinol	0.11	Sesquiterpenic alcohol

(3Z)-Caryophylla-3,8(13)-dien-5 β -ol	0.06	Sesquiterpenic alcohol
Eudesma-4(15),7-dien-1 β -ol	0.03	Sesquiterpenic alcohol
α -Bisabolol	0.02	Sesquiterpenic alcohol
Unknown	0.01	Lignan
Geranyl tiglate	0.06	Monoterpenic ester
Unknown	0.05	Oxygenated sesquiterpene
Mint sulfide	0.02	Sesquiterpenic sulfide
Phytone	0.05	Terpenic ketone
Phytol	0.02	Diterpenic alcohol
Unknown	0.07	Lignan
Dehydrodieugenol	0.15	Lignan
Consolidated total	98.39	

tr: The compound has been detected below 0.005% of the total signal

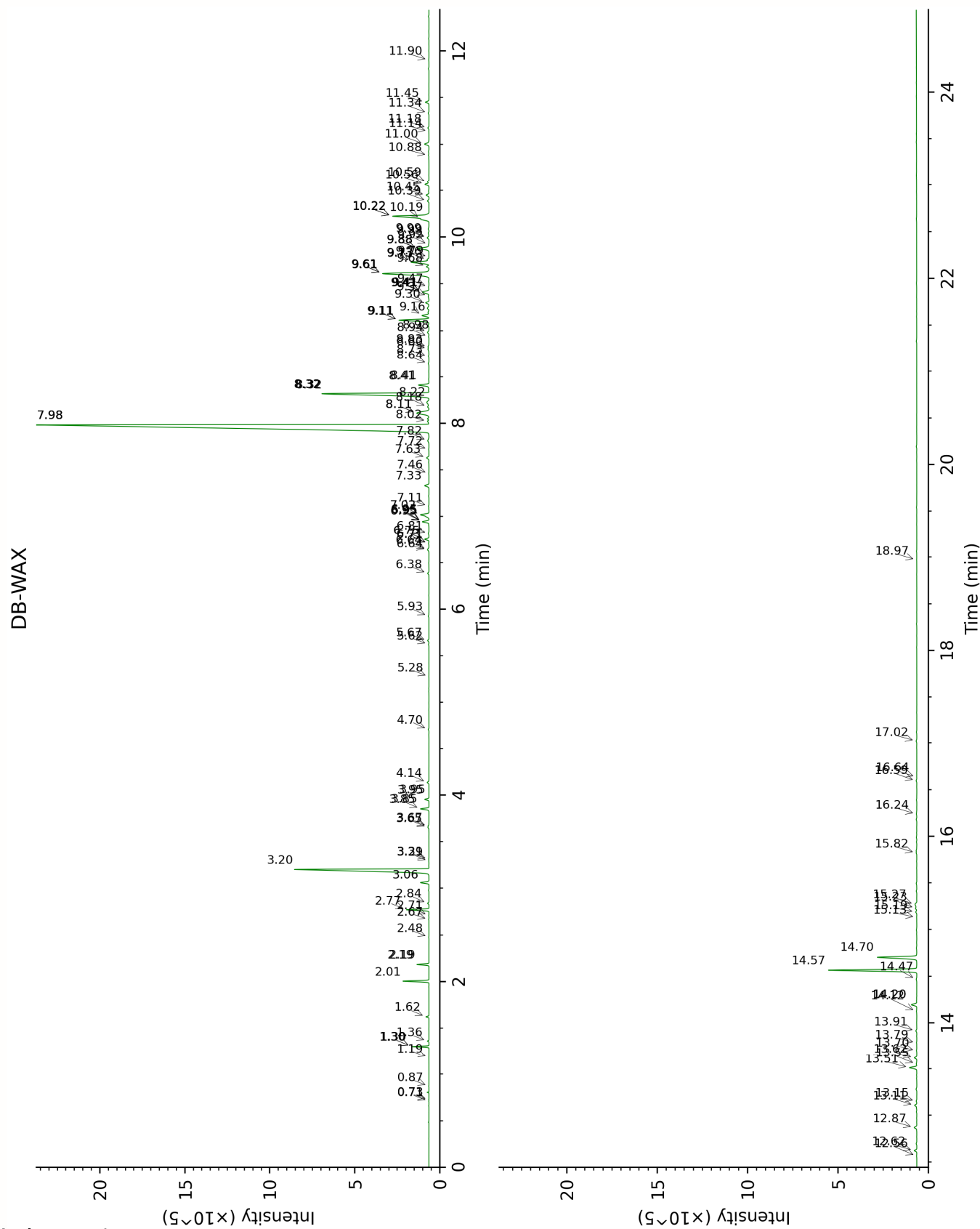
Note: no correction factor was applied

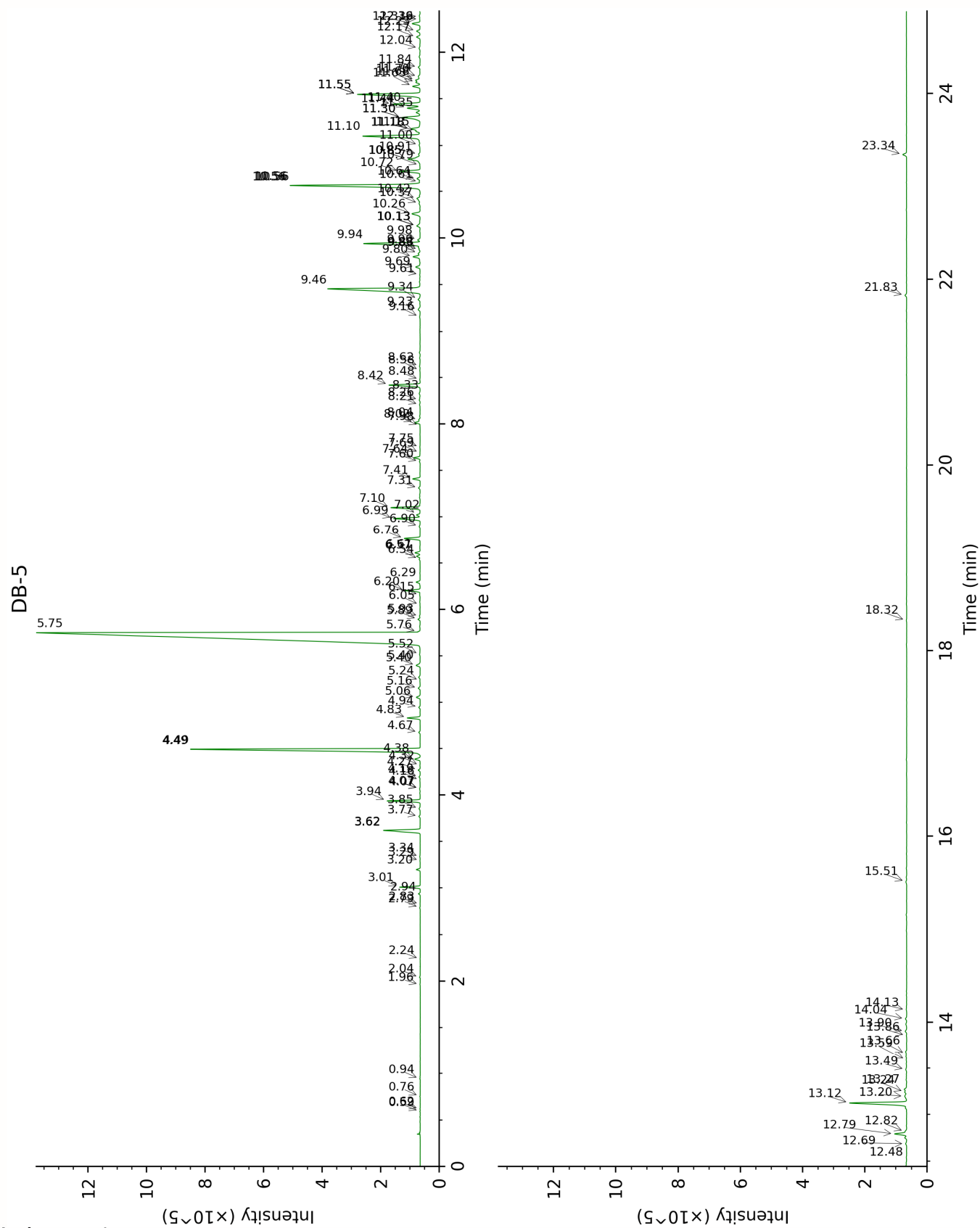
About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm 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.

Bracketed value ([xx]): A bracketed percent value indicate that two or more compound percentage could not be solved due to coelution.

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FULL ANALYSIS DATA

Isovaleral	Column DB-WAX			Column DB-5		
	0.73	885.9	tr	0.59	643.4	tr
2-Methylbutyral	0.71	880.0	tr	0.62	653.4	tr
2-Ethylfuran	0.87	921.9	0.01	0.76	703.2	tr
Isoamyl alcohol	3.31	1176.9	0.01	0.94	732.6	0.01
(2E)-Hexenal	3.29	1175.2	0.01	1.96	849.4	0.01
(3Z)-Hexenol	5.62	1344.6	0.02	2.04	856.0	0.02
Hexanol	5.28	1319.5	0.01	2.24	872.8	0.01
Hashishene	1.30*	990.8	[0.57]	2.79	916.4	0.02
Tricyclene	1.19	971.9	tr	2.83	919.0	0.01
α -Thujene	1.36	1000.3	0.05	2.94	926.5	0.05
α -Pinene	1.30*	990.8	[0.57]	3.01	931.2	0.57
Camphene	1.62	1028.5	0.11	3.20	943.9	0.12
Thuja-2,4(10)-diene	2.18*	1083.6	[0.48]	3.29	950.2	0.01
Benzaldehyde	7.11	1455.1	0.02	3.34	953.1	0.03
Sabinene	2.18*	1083.6	[0.48]	3.62*	972.2	[1.56]
β -Pinene	2.01	1066.0	1.07	3.62*	972.2	[1.56]
Octen-3-ol	6.64*	1419.3	[0.10]	3.77	982.3	0.05
Octan-3-one	3.85*	1218.7	[0.42]	3.85	987.9	0.06
Myrcene	2.77	1134.3	0.98	3.94	993.5	1.00
α -Phellandrene	2.67	1126.1	0.01	4.07*	1002.5	[0.03]
Pseudolimonene	2.71	1129.4	0.01	4.07*	1002.5	[0.03]
Δ 3-Carene	2.48	1111.4	0.01	4.16	1008.3	0.02
(3Z)-Hexenyl acetate	4.70	1281.5	0.04	4.19	1010.5	0.04
α -Terpinene	2.84	1139.7	0.06	4.27	1015.2	0.07
meta-Cymene	3.95*	1226.1	[0.21]	4.32	1018.4	0.01
para-Cymene	3.95*	1226.1	[0.21]	4.38	1022.7	0.22
Limonene	3.06	1157.1	0.44	4.49*	1029.4	[10.08]
1,8-Cineole	3.20	1168.2	9.80	4.49*	1029.4	[10.08]
(Z)- β -Ocimene	3.67*†	1204.8	[0.04]	4.67	1040.9	0.05
(E)- β -Ocimene	3.85*	1218.7	[0.42]	4.83	1050.8	0.41
γ -Terpinene	3.65*†	1203.7	[0.04]	4.94	1058.1	0.05
cis-Sabinene hydrate	6.75*	1427.8	[0.23]	5.06	1065.5	0.15
cis-Linalool oxide (fur.)	6.38	1400.3	0.07	5.16	1071.7	0.08
Octanol	8.02	1524.5	0.10	5.24	1076.8	0.02
trans-Linalool oxide (fur.)	6.75*	1427.8	[0.23]	5.40*	1087.3	[0.18]
Terpinolene	4.14	1239.5	0.10	5.40*	1087.3	[0.18]
6,7-Epoxymyrcene	5.93	1366.8	0.03	5.52	1094.8	0.04
Linalool	7.98*	1521.3	[47.33]	5.75	1109.8	47.16
Phenylethyl alcohol	11.90	1846.8	0.02	5.76	1110.5	0.04

Octen-3-yl acetate	5.67	1347.7	0.07	5.89	1119.1	0.08
<i>cis-para</i> -Menth-2-en-1-ol	7.98*	1521.3	[47.33]	5.93	1121.4	0.03
Limona ketone	7.72	1501.0	0.02	6.05	1129.2	0.01
(Z)-Myroxide	6.71*	1424.3	[0.03]	6.15	1136.0	0.02
Camphor	7.02	1448.1	0.66	6.20	1139.2	0.51
(E)-Myroxide	6.95*	1442.4	[0.38]	6.29	1145.1	0.14
Isomenthone	6.81	1432.4	0.04	6.54	1161.2	0.04
Borneol	9.61*	1651.1	[3.58]	6.57	1163.2	0.12
δ -Terpineol	9.30	1625.4	0.19	6.61	1165.7	0.18
Terpinen-4-ol	8.41*	1554.9	[0.60]	6.76	1175.8	0.55
<i>para</i> -Cymen-8-ol	11.34	1796.5	0.05	6.90	1184.7	0.04
α -Terpineol	9.61*	1651.1	[3.58]	6.98	1190.2	0.95
Hodiendiol (2,6-dimethylocta-3,7-diene-2,6-diol)	12.62	1911.2	0.14	7.02	1192.8	0.14
Methylchavicol	9.11*	1610.1	[1.77]	7.10	1197.9	1.02
(3E,5E)-2,6-Dimethylocta-3,5,7-trien-2-ol	11.18	1782.8	0.06	7.31	1211.9	0.06
Octyl acetate	6.95*	1442.4	[0.38]	7.41	1218.6	0.26
Nerol	10.88	1757.7	0.03	7.60	1231.3	0.03
Citronellol	10.56	1730.4	0.24	7.64	1234.1	0.22
Unknown CIAU II [m/z 137, 152 (28), 43 (25), 91 (24), 109 (23), 119 (19)]	11.14	1779.6	0.01	7.69	1237.8	0.01
Carvone	9.79	1665.9	0.01	7.75	1242.0	0.01
Linalyl acetate	7.98*	1521.3	[47.33]	7.98	1257.7	tr
Geraniol	11.45	1806.5	0.22	8.02	1260.0	0.20
Chavicol	16.24	2266.6	0.05	8.04	1262.0	0.04
Geranial	9.92	1676.5	0.02	8.21	1273.1	0.03
Citronellyl formate	8.73	1579.6	0.04	8.26	1276.7	0.03
Unknown CYMA IV [m/z 43, 41 (25), 67 (24), 109 (23), 93 (20), 69 (19)...]				8.33	1281.6	0.05
Bornyl acetate	8.11*	1531.2	[1.22]	8.42	1287.7	1.13
Lavandulyl acetate	8.64	1573.2	0.05	8.48	1291.8	0.02
<i>trans</i> -Pinocarvyl acetate	8.94	1596.3	0.03	8.58	1298.6	0.02
Geranyl formate	9.73*	1661.1	[1.17]	8.62	1301.7	0.03
δ -Elemene isomer	6.71*	1424.3	[0.03]	9.16	1335.9	0.03
exo-2-Hydroxycineole	9.88*	1673.2	[0.75]	9.24	1341.5	0.10

acetate						
α-Cubebene	6.64*	1419.3	[0.10]	9.34	1349.2	0.10
Eugenol	14.57	2096.1	5.02	9.46	1357.3	5.04
Neryl acetate	9.99*	1682.4	[0.11]	9.61	1368.0	0.02
α-Copaene	6.95*	1442.4	[0.38]	9.69	1373.9	0.18
β-Bourbonene	7.33	1471.7	0.27	9.80	1381.7	0.30
cis-β-Elementene	8.11*	1531.2	[1.22]	9.83	1384.0	0.08
Geranyl acetate	10.39	1715.0	0.09	9.88	1387.2	0.03
β-Cubebene	7.63	1494.2	0.15	9.90	1388.9	0.07
β-Elementene	8.32*	1547.7	[7.95]	9.94	1391.8	2.16
Unknown OCSA I [m/z 161, 105 (83), 119 (69), 81 (34), 91 (29), 93 (28)...204]				9.98	1394.5	0.09
α-Cedrene	7.82	1508.0	0.12	10.13*	1405.2	[0.16]
α-Gurjunene	7.46	1481.5	0.01	10.13*	1405.2	[0.16]
Methyleugenol	13.11	1956.6	0.13	10.13*	1405.2	[0.16]
β-Caryophyllene	8.32*	1547.7	[7.95]	10.26	1414.9	0.39
β-Copaene	8.18	1536.5	0.08	10.37	1423.1	0.05
β-Gurjunene	8.22	1540.2	0.22	10.42	1427.1	0.13
α-Guaiene	8.32*	1547.7	[7.95]	10.56*	1437.7	[5.65]
trans-α- Bergamotene	8.32*	1547.7	[7.95]	10.56*	1437.7	[5.65]
Aromadendrene	8.41*	1554.9	[0.60]	10.56*	1437.7	[5.65]
cis-Muurolo-3,5- diene	8.80	1585.9	0.07	10.61	1441.2	0.04
cis-β-Bergamotene?				10.64	1443.7	0.13
α-Humulene	9.11*	1610.1	[1.77]	10.72	1449.5	0.78
allo- Aromadendrene	8.83	1587.6	0.07	10.79	1454.4	0.01
(E)-β-Farnesene	9.41*	1634.8	[0.51]	10.85*	1459.4	[0.68]
cis-Muurolo-4(15),5- diene	9.16	1614.2	0.44	10.85*	1459.4	[0.68]
γ-Gurjunene	8.98	1599.8	0.10	10.91	1463.5	0.07
γ-Muuroloene	9.37	1631.1	0.06	11.00	1470.7	0.06
Germacrene D	9.61*	1651.1	[3.58]	11.10	1477.9	2.48
β-Selinene	9.68	1657.1	0.14	11.16	1482.1	0.14
allo-Aromadendr-9- ene	9.41*	1634.8	[0.51]	11.18*	1483.9	[0.43]
trans-β- Bergamotene	9.41*	1634.8	[0.51]	11.18*	1483.9	[0.43]
Bicyclogermacrene	9.88*	1673.2	[0.75]	11.30*	1493.0	[0.84]
Viridiflorene	9.47	1639.3	0.04	11.30*	1493.0	[0.84]
α-Muuroloene	9.88*	1673.2	[0.75]	11.35	1497.0	0.16
(Z)-α-Bisabolene	10.19*†	1698.8	[0.44]	11.40	1500.5	0.52

δ-Guaiene	9.73*	1661.1	[1.17]	11.44	1503.7	1.08
(Z)-γ-Bisabolene	9.76	1663.3	0.10	11.55*	1511.9	[2.65]
γ-Cadinene	10.22*†	1701.5	[2.69]	11.55*	1511.9	[2.65]
β-Bisabolene	9.99*	1682.4	[0.11]	11.55*	1511.9	[2.65]
trans-Calamenene	11.00	1768.0	0.30	11.64	1518.7	0.29
δ-Cadinene	10.22*†	1701.5	[2.69]	11.68	1522.1	0.16
β-Sesquiphellandrene	10.45	1720.4	0.17	11.70	1523.9	0.17
10-epi-Cubebol?	13.55	1998.2	0.04	11.74	1527.0	0.11
α-Cadinene	10.59	1732.9	0.08	11.84	1535.0	0.07
Salviadienol?	14.12	2053.0	0.04	12.04	1551.1	0.05
Maaliol	12.87	1934.3	0.16	12.17	1560.6	0.14
(E)-Nerolidol	13.62	2004.3	0.14	12.23	1565.6	0.15
Spathulenol	14.20*	2060.1	[0.32]	12.31	1571.9	0.32
Caryophyllene oxide	12.56	1905.9	0.02	12.36	1575.9	0.02
Globulol	13.70	2012.0	0.03	12.39	1578.6	0.04
Viridiflorol	13.79	2020.2	0.02	12.48	1585.5	0.03
Humulene epoxide II	13.15	1960.9	0.04	12.69	1601.9	0.06
1,10-diepi-Cubenol	13.51	1994.4	0.43	12.79	1610.3	0.46
10-epi-γ-Eudesmol	13.92	2032.7	0.06	12.82	1612.3	0.05
τ-Cadinol	14.70	2109.5	2.37	13.12	1638.0	2.36
β-Eudesmol	15.23	2162.3	0.08	13.20	1644.1	0.13
α-Eudesmol	15.13	2152.6	0.02	13.24	1647.7	0.09
α-Cadinol	15.27	2166.7	0.17	13.27	1650.2	0.11
(3Z)-Caryophylla-3,8(13)-dien-5β-ol	16.60	2304.0	0.04	13.49	1668.0	0.06
Eudesma-4(15),7-dien-1β-ol	15.82	2222.9	0.04	13.59	1676.7	0.03
α-Bisabolol	15.19	2158.6	0.07	13.66	1682.1	0.02
Unknown OCSA IV [m/z 133, 93 (97), 131 (85), 145 (83), 107 (69)...220]	16.64	2308.3	0.01	13.86	1698.8	0.01
Geranyl tiglate	14.20*	2060.1	[0.32]	13.90	1702.6	0.06
Unknown UNKN CLXIX [m/z 93, 81 (90), 107 (83), 95 (75), 91 (71), 71 (70), 121 (68), 105 (68)...220 (47)]	17.02	2350.1	0.05	14.04	1714.1	0.05
Mint sulfide				14.13	1722.5	0.02
Phytone	14.47	2086.4	0.04	15.51	1844.3	0.05
Phytol	18.97	2569.3	0.01	18.32	2114.9	0.02

Unknown OCSA V [m/z 326, 148 (67), 147 (41), 117 (30), 91 (22)...]				21.83	2500.3	0.07
Dehydrodieugenol				23.34	2686.0	0.15
Total reported		97.46%			98.14%	

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, only the first one is 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