

**Date :** 2025-05-20

*CERTIFICATE OF ANALYSIS - GC PROFILING*

*SAMPLE IDENTIFICATION*

**Internal code :** 25D11-PTH02

**Customer Identification :** Wintergreen - China - W10111R

**Type :** Essential Oil

**Source :** *Gaultheria procumbens*

**Customer :** Plant Therapy

Checked and approved by:

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

*Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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.*

This report is an update from the first version issued on 2025-04-29 to correct the customer identification.

## *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 :** 2025-04-23

## *PHYSICOCHEMICAL DATA*

**Refractive index :**  $1.5367 \pm 0.0003$  (20 °C)

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

**Analyst :** Cindy Caron B. Sc.

**Date :** 2025-04-11

## *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
(3Z)-Hexenol	0.06	Aliphatic alcohol
Hexanol	0.03	Aliphatic alcohol
$\alpha$ -Pinene	0.01	Monoterpene
Benzaldehyde	0.01	Simple phenolic
$\beta$ -Pinene	tr	Monoterpene
(3Z)-Hexenyl acetate	0.01	Aliphatic ester
<i>para</i> -Cymene	tr	Monoterpene
Limonene	0.01	Monoterpene
1,8-Cineole	0.02	Monoterpenic ether
Benzyl alcohol	0.01	Simple phenolic
Octanol	0.01	Aliphatic alcohol
Linalool	0.08	Monoterpenic alcohol
Menthol	tr	Monoterpenic alcohol
Terpinen-4-ol	0.01	Monoterpenic alcohol
Methyl salicylate	99.70	Phenolic ester
Neral	tr	Monoterpenic aldehyde
Ethyl salicylate	0.01	Phenolic ester
<b>Consolidated total</b>	<b>99.98</b>	

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

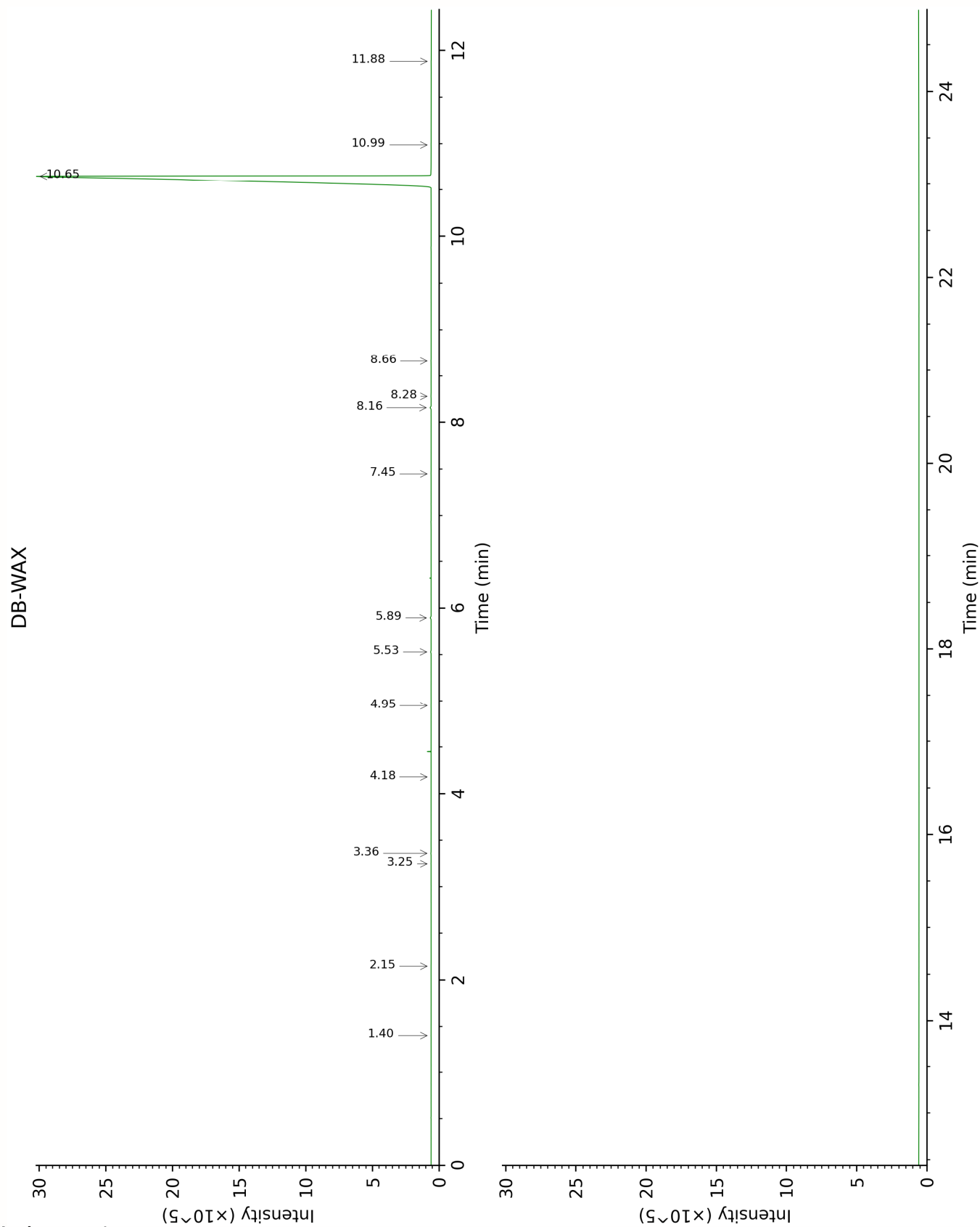
Note: no correction factor was applied

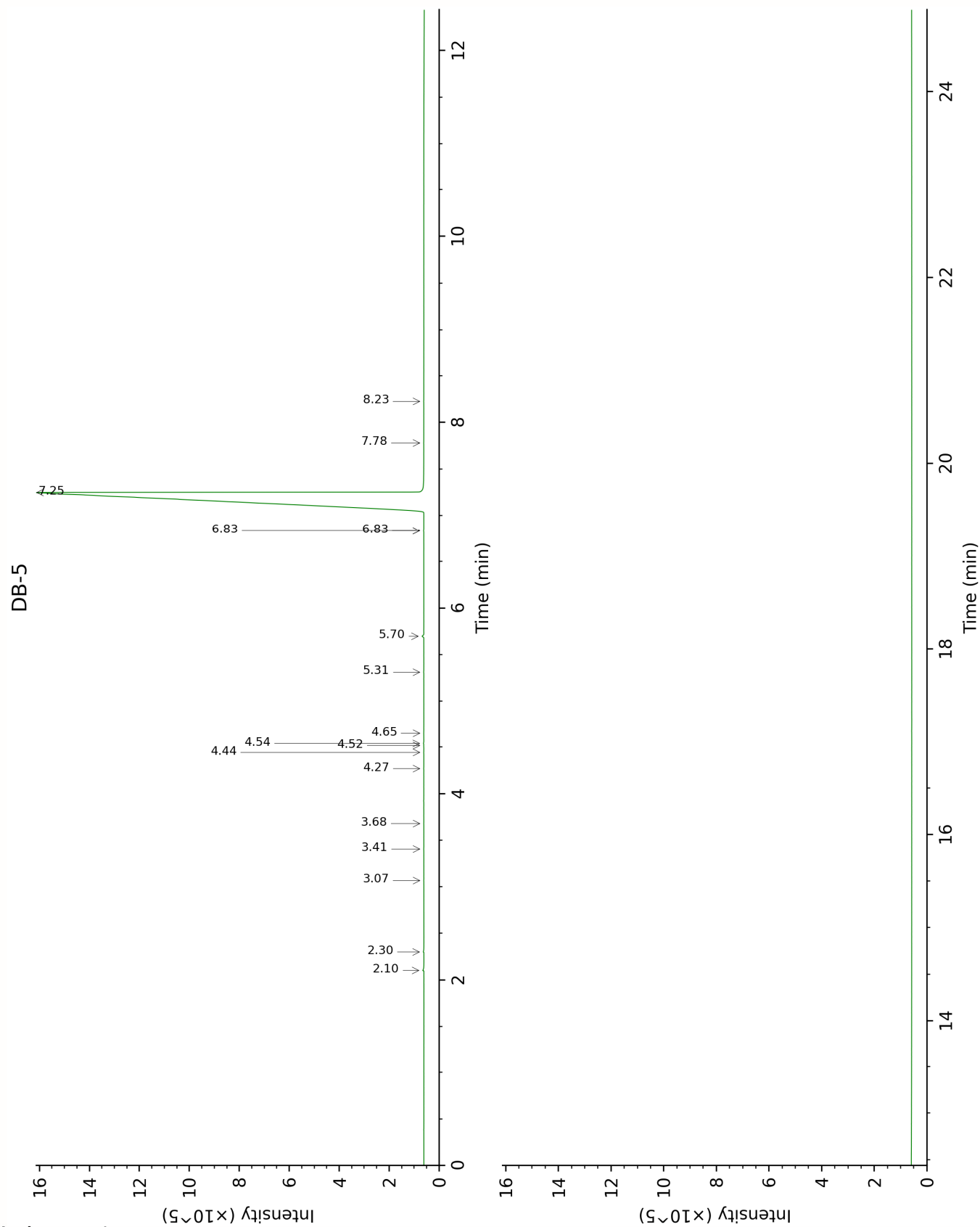
**About "consolidated" data:** The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm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

This page was intentionally left blank. The following pages present the complete data of the analysis.





FULL ANALYSIS DATA

(3Z)-Hexenol	Column DB-WAX			Column DB-5		
	5.90	1352.4	0.07	2.10	855.9	0.06
Hexanol	5.53	1326.6	0.04	2.30	872.7	0.03
$\alpha$ -Pinene	1.40	991.1	tr	3.07	930.6	0.01
Benzaldehyde	7.45	1464.7	0.01	3.41	953.3	0.01
$\beta$ -Pinene	2.15	1066.0	tr	3.68	971.7	tr
(3Z)-Hexenyl acetate	4.95	1282.4	0.01	4.27	1011.0	0.01
<i>para</i> -Cymene	4.18	1227.4	tr	4.44	1022.1	tr
Limonene	3.25	1157.7	0.01	4.52	1026.8	0.01
1,8-Cineole	3.36	1166.5	0.02	4.54	1028.2	0.02
Benzyl alcohol	11.88	1820.1	0.01	4.65	1035.1	0.01
Octanol	8.28	1527.1	0.01	5.31	1077.3	0.01
Linalool	8.16	1517.8	0.08	5.70	1101.8	0.08
Menthol				6.83*	1175.4	[0.01]
Terpinen-4-ol	8.66	1556.2	0.01	6.83*	1175.4	[0.01]
Methyl salicylate	10.65	1715.0	99.64	7.25	1202.4	99.70
Neral				7.78	1238.3	tr
Ethyl salicylate	10.99	1743.3	0.01	8.23	1268.7	0.01
Total reported		99.93%			99.98%	

\*: 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