

**Date :** 2026-05-07

**CERTIFICATE OF ANALYSIS - GC PROFILING (MAIN TERPENES)**

**SAMPLE IDENTIFICATION**

**Internal code :** 26E06-DOG02

**Customer Identification :** Canal St.Runtz - Lot: 0222026CSR

**Type :** Plant material

**Source :** *Cannabis sativa*

**Customer :** 2172181 Alberta Ltd. (Dog Star Cannabis)

Checked and approved by:

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*Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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

## PHYSICOCHEMICAL DATA

**Method :** PC-MAT-024 - Vegetal material moisture content determination

**Moisture content :** 14.36 % m/m

**Analyst :** Kassandra Baker

**Date :** 2026-05-07

## GAS CHROMATOGRAPHIC ANALYSIS

**Method :** PC-MAT-004 - Terpenes and volatiles profiling by response factor

**Results :** See analysis summary (table)

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

**Date :** 2026-05-07

## REFERENCE

(1) Cachet, T.; Brevard, H.; Chaintreau, A.; Demyttenaere, J.; French, L.; Gassenmeier, K.; Joulain, D.; Koenig, T.; Leijts, H.; Liddle, P.; et al. IOFI Recommended Practice for the Use of Predicted Relative-Response Factors for the Rapid Quantification of Volatile Flavouring Compounds by GC-FID. *Flavour Fragr. J.* 2016, 31 (3), 191–194.

## ANALYSIS SUMMARY - CONSOLIDATED CONTENTS

| Identification               | Anhydrous (mg/g) | As is (mg/g) | Class                |
|------------------------------|------------------|--------------|----------------------|
| $\beta$ -Caryophyllene       | 11.68            | 10.0         | Sesquiterpene        |
| Myrcene                      | 9.62             | 8.24         | Monoterpene          |
| $\alpha$ -Humulene           | 4.05             | 3.47         | Sesquiterpene        |
| Limonene                     | 3.08             | 2.64         | Monoterpene          |
| (E)- $\beta$ -Farnesene      | 2.63             | 2.25         | Sesquiterpene        |
| Selina-3,7(11)-diene         | 2.06             | 1.76         | Sesquiterpene        |
| Linalool                     | 1.77             | 1.52         | Monoterpenic alcohol |
| Hexyl hexanoate              | 1.74             | 1.49         | Aliphatic ester      |
| Selina-4(15),7(11)-diene     | 1.70             | 1.46         | Sesquiterpene        |
| Germacrene B                 | 1.68             | 1.44         | Sesquiterpene        |
| trans- $\alpha$ -Bergamotene | [1.47]           | [1.26]       | Sesquiterpene        |
| $\alpha$ -Guaiene            | [1.47]           | [1.26]       | Sesquiterpene        |
| Selina-4,7(11)-diene         | 1.15             | 0.99         | Sesquiterpene        |
| $\beta$ -Selinene            | 0.81             | 0.7          | Sesquiterpene        |
| $\alpha$ -Selinene           | 0.68             | 0.58         | Sesquiterpene        |
| $\gamma$ -Elemene            | 0.66             | 0.56         | Sesquiterpene        |
| $\beta$ -Pinene              | 0.63             | 0.54         | Monoterpene          |
| (3E,6E)- $\alpha$ -Farnesene | 0.54             | 0.46         | Sesquiterpene        |

|                                  |      |      |                        |
|----------------------------------|------|------|------------------------|
| (E)-Nerolidol                    | 0.44 | 0.37 | Sesquiterpenic alcohol |
| $\alpha$ -Terpineol              | 0.35 | 0.3  | Monoterpenic alcohol   |
| Eremophila-1(10),7(11)-diene     | 0.34 | 0.29 | Sesquiterpene          |
| endo-Fenchol                     | 0.33 | 0.28 | Monoterpenic alcohol   |
| Unknown                          | 0.32 | 0.28 | Sesquiterpene          |
| $\alpha$ -Pinene                 | 0.32 | 0.27 | Monoterpene            |
| Spirovetiva-1(10),7(11)-diene    | 0.32 | 0.27 | Sesquiterpene          |
| Juniper camphor                  | 0.31 | 0.26 | Sesquiterpenic alcohol |
| Eudesma-5,7(11)-diene            | 0.27 | 0.24 | Sesquiterpene          |
| $\beta$ -Bisabolene              | 0.27 | 0.23 | Sesquiterpene          |
| trans-Pinene hydrate             | 0.22 | 0.19 | Monoterpenic alcohol   |
| Terpinolene                      | 0.20 | 0.17 | Monoterpene            |
| Caryophyllene oxide              | 0.19 | 0.17 | Sesquiterpenic ether   |
| allo-Aromadendrene               | 0.18 | 0.16 | Sesquiterpene          |
| Selin-6-en-4 $\alpha$ -ol isomer | 0.17 | 0.15 | Sesquiterpenic alcohol |
| Valencene                        | 0.15 | 0.13 | Sesquiterpene          |
| $\alpha$ -Eudesmol               | 0.14 | 0.12 | Sesquiterpenic alcohol |
| Borneol                          | 0.12 | 0.1  | Monoterpenic alcohol   |
| Ipsdienol                        | 0.11 | 0.09 | Monoterpenic alcohol   |
| Unknown                          | 0.10 | 0.09 | Sesquiterpene          |
| Phytol                           | 0.10 | 0.09 | Diterpenic alcohol     |
| Camphene                         | 0.09 | 0.08 | Monoterpene            |
| Humulene epoxide II              | 0.09 | 0.08 | Sesquiterpenic ether   |
| Hexyl butyrate                   | 0.09 | 0.07 | Aliphatic ester        |
| Hexanol                          | 0.08 | 0.07 | Aliphatic alcohol      |
| $\gamma$ -Eudesmol               | 0.08 | 0.07 | Sesquiterpenic alcohol |
| $\alpha$ -Ylangene               | 0.07 | 0.06 | Sesquiterpene          |
| $\delta$ -Guaiene                | 0.07 | 0.06 | Sesquiterpene          |
| $\beta$ -Phellandrene            | 0.06 | 0.06 | Monoterpene            |
| $\alpha$ -Bisabolol              | 0.06 | 0.05 | Sesquiterpenic alcohol |
| (E)- $\alpha$ -Bisabolene        | 0.06 | 0.05 | Sesquiterpene          |
| Selin-6-en-4 $\alpha$ -ol        | 0.05 | 0.04 | Sesquiterpenic alcohol |
| cis-Pinene hydrate               | 0.05 | 0.04 | Monoterpenic alcohol   |
| Fenchone                         | 0.05 | 0.04 | Monoterpenic ketone    |
| Aromadendrane-4,10-diol          | 0.05 | 0.04 | Sesquiterpenic alcohol |
| $\beta$ -Eudesmol                | 0.04 | 0.03 | Sesquiterpenic alcohol |
| (E)- $\beta$ -Ocimene            | 0.03 | 0.02 | Monoterpene            |
| meta-Camphorene                  | 0.03 | 0.02 | Diterpene              |
| Terpinen-4-ol                    | 0.02 | 0.02 | Monoterpenic alcohol   |
| Octanol                          | 0.02 | 0.02 | Aliphatic alcohol      |
| $\alpha$ -Cubebene               | 0.02 | 0.02 | Sesquiterpene          |
| Hashishene                       | 0.02 | 0.02 | Monoterpene            |
| Cryptomeridiol                   | 0.02 | 0.01 | Sesquiterpenic alcohol |
| Camphene hydrate                 | 0.02 | 0.01 | Monoterpenic alcohol   |
| cis-Sabinene hydrate             | 0.02 | 0.01 | Monoterpenic alcohol   |

|                                     |              |              |                        |
|-------------------------------------|--------------|--------------|------------------------|
| (2E,6E)-Farnesol                    | 0.01         | 0.01         | Sesquiterpenic alcohol |
| Bulnesol                            | 0.01         | 0.01         | Sesquiterpenic alcohol |
| <i>trans</i> -Sabinene hydrate      | 0.01         | 0.01         | Monoterpenic alcohol   |
| $\alpha$ -Phellandrene              | 0.01         | 0.01         | Monoterpene            |
| $\alpha$ -Terpinene                 | 0.01         | 0.01         | Monoterpene            |
| (Z)- $\beta$ -Ocimene               | 0.01         | 0.01         | Monoterpene            |
| $\gamma$ -Terpinene                 | 0.01         | 0.01         | Monoterpene            |
| Guaiol                              | 0.01         | 0.01         | Sesquiterpenic alcohol |
| Decanol                             | 0.01         | 0.01         | Aliphatic alcohol      |
| $\alpha$ -Thujene                   | 0.01         | 0.01         | Monoterpene            |
| Sabinene                            | 0.01         | 0.01         | Monoterpene            |
| <i>para</i> -Cymen-8-ol             | 0.01         | 0.01         | Monoterpenic alcohol   |
| Geraniol                            | 0.01         | 0.01         | Monoterpenic alcohol   |
| <i>para</i> -Cymene                 | 0.01         | 0.01         | Monoterpene            |
| (4Z)-Decenol                        | 0.01         | 0.0          | Aliphatic alcohol      |
| 10- <i>epi</i> - $\gamma$ -Eudesmol | tr           | tr           | Sesquiterpenic alcohol |
| $\alpha$ -Fenchene                  | tr           | tr           | Monoterpene            |
| $\Delta^3$ -Carene                  | tr           | tr           | Monoterpene            |
| <b>Consolidated total</b>           | <b>52.23</b> | <b>44.74</b> |                        |

tr: The compound has been detected below 0.01 mg/g.

[xx]: Duplicate concentration due to coelutions, taken only once into account in the consolidated total

Note: Individual compounds contents were corrected following the method of Cachet et al., 2016 (Flavour and Fragrance Journal guidelines).  
Unknown compounds are expressed in equivalents of internal standard without correction factor.

**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.

**Unknowns:** The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion. Some recurring, characteristic unknowns are listed for cannabis samples as they are representative of the actual composition of the material.