

# Certificate of Analysis

For R&D Use Only - Not a California Compliance Certificate.

## Hard Cider

**Client: Dr. Wonderstone**

Sample Name: Hard Cider

Batch Number: N/A

Matrix: Plant

Unit Mass: 1 g per unit

Sample ID: 55041112-5

Date Received: 11/12/2024



<b>Total CBD</b>	<b>ND</b>
<b>Delta 9-THC</b>	<b>0.08 %</b>
<b>THCA</b>	<b>33.35 %</b>
<b>Total Cannabinoids</b>	<b>33.43 %</b>

### Analysis Summary

Total Terpenes	2.83 %
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### Cannabinoid Analysis

**Complete**

Analyte	LOD (%)	LOQ (%)	Mass (%)	Mass (mg/g)
CBDV	0.0035	0.011	ND	ND
CBD	0.0030	0.0090	ND	ND
CBG	0.0038	0.011	ND	ND
CBDA	0.0017	0.0052	ND	ND
CBN	0.00080	0.0024	ND	ND
<b>Delta 9-THC</b>	<b>0.0022</b>	<b>0.0067</b>	<b>0.083</b>	<b>0.83</b>
Delta 8-THC	0.0020	0.0059	ND	ND
CBC	0.00070	0.0021	ND	ND
<b>THCA</b>	<b>0.0024</b>	<b>0.0073</b>	<b>33.349</b>	<b>333.49</b>
Total CBD			ND	ND
<b>Total THC</b>			<b>29.330</b>	<b>293.30</b>
<b>Total Cannabinoids</b>			<b>33.432</b>	<b>334.32</b>

Date Tested: 11/13/2024

Total THC = THCa \* 0.877 + d9-THC + d8-THC; Total CBD = CBDA \* 0.877 + CBD

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**References:** limit of detection (LOD), limit of quantitation (LOQ), not detected (ND), not tested (NT)

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## Terpenoid Analysis

Complete

Analyte	LOQ (%)	Mass (%)	Mass (mg/g)
<b>Camphene</b>	0.0085	<b>0.0287</b>	<b>0.287</b>
3-Carene	0.0085	ND	ND
<b>β-Caryophyllene</b>	0.0085	<b>0.7984</b>	<b>7.984</b>
p-Cymene	0.0085	ND	ND
Eucalyptol	0.0085	ND	ND
<b>Fenchol</b>	0.0085	<b>0.0607</b>	<b>0.607</b>
<b>α-Humulene</b>	0.0085	<b>0.4311</b>	<b>4.311</b>
<b>δ-Limonene</b>	0.0085	<b>1.2455</b>	<b>12.455</b>
Linalool	0.0085	ND	ND
<b>β-Myrcene</b>	0.0085	<b>0.1756</b>	<b>1.756</b>
Nerolidol	0.0085	ND	ND
<b>α-Pinene</b>	0.0085	<b>0.0878</b>	<b>0.878</b>
Terpinolene	0.0085	ND	ND
<b>Total Terpenoids</b>		<b>2.83</b>	<b>28.28</b>

Date Tested: 11/14/2024

### Method References:

Cannabinoid Profile (UNODC)

Official Methods of Analysis, Method 2018.11.AOAC INTERNATIONAL (modified), Lukas Vaclavik, Frantisek Benes, Alex Krmela, Veronika Svobodova, Jana Hajsolva, and Katerina Mastovska, "Quantification of Cannabinoids in Cannabis Dried Plant Materials, Concentrates, and Oils Liquid Chromatography-Diode Array Detection Technique with Optional Mass Spectrometric Detection," First Action Method, Journal of AOAC International, Future Issue

United Nations Office on Drugs and Crime - Recommended methods for identification and analysis of cannabis and cannabis products

### Testing Location

FESA Labs - Santa Ana, CA