

## Certificate of Analysis

**Company:** Mad River Botanicals  
 410 Butternut Hill Rd  
 Waitsfield, VT 05673

**Sample ID:** 1000mg Oil O23

**Lot:** N/A

**Report Date:** 12/21/2022

**Matrix:** Oil

**Date Analyzed:** 12/19/2022

**Customer ID:** 210119-0

**Date Sampled:** N/A

**Analyst:** 011

**Grower License #:** #50\_2022\_00000111

**Date Received:** 12/2/2022

**Report ID:** C221202AY

### Cannabinoid Summary

Cannabinoid Profile	LOQ (mg/g)	Concentration (mg/g)	Weight (%)
CBDVA	0.0005	<LOQ	<LOQ
CBDV	0.0012	0.48	0.05
CBDA	0.0008	0.80	0.08
CBGA	0.0008	<LOQ	<LOQ
CBG	0.0019	2.11	0.21
CBD	0.0019	34.27	3.43
THCV	0.0021	<LOQ	<LOQ
CBN	0.0013	<LOQ	<LOQ
Δ9-THC	0.0020	1.35	0.13
Δ8-THC	0.0019	<LOQ	<LOQ
THC-A	0.0034	<LOQ	<LOQ
CBC	0.0024	1.80	0.18
<b>Total THC</b>		<b>1.35</b>	<b>0.13</b>
<b>Total CBD</b>		<b>34.98</b>	<b>3.50</b>
<b>Total Cannabinoids</b>		<b>40.81</b>	<b>4.08</b>

0.13%  
**Total THC**

3.5%  
**Total CBD**

4.08%  
**Total Cannabinoids**

0.13%  
**Δ9-THC**

N/A  
**Percent Moisture**

1 : 25.9  
**THC : CBD Ratio**

**Cannabinoids Methodology:** High Performance Liquid Chromatography (HPLC) using PerkinElmer FLEXAR™ with Photo Diode Array Detector (PDA)

Total CBD and total THC are calculated values, to account for assumed decarboxylation from the acid form (THCA or CBDA) to the neutral form, causing weight loss of the acid group. These values are calculated as follows:  
 Total THC = (THCA x 0.877) + Δ9-THC      Total CBD = (CBDA x 0.877) + CBD  
 Ratio of Total CBD: Total THC      Reagent Blanks: < LOQs for all analytes

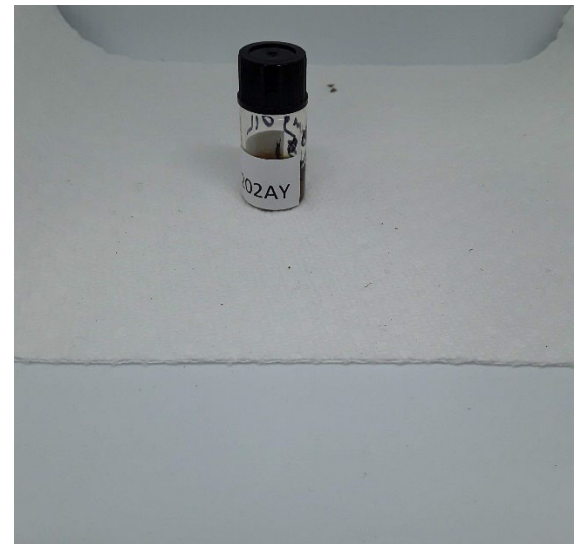
LOQ = The lowest quantity that this method can reliably detect. Any cannabinoid that was not detected is assumed to be less than the stated LOQ (<LOQ).

All results reflect dry weight of material, based on % moisture of the sample.

Measurement of Uncertainty (MU): the parameter, associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to measurement.  
 Δ9-THC MU = ±0.005%      Total THC MU = ±0.007%

All other cannabinoid MU values are available upon request.

All moisture analysis is determined by loss-on-drying measurement using OHAUS Model MB90 Moisture Content Readers.



This report shall not be reproduced except in full without approval of the laboratory. This is to provide assurance that parts of a report are not taken out of context. Results apply to the samples as received.

Certified by: *Luke E. M.*  
 Luke Emerson Mason (Laboratory Director, Bia Diagnostics)