Certificate ID: 111389

Received: 12/2/22

Client Sample ID: Calm

Lot Number:

Matrix: Flowers/Bud-Dry Flower



CANNAFLOWER

40 University Way, Unit 40 Brattleboro, VT 05301

Authorization: Signature: Date:

Andrew Aubin, Lab Director



12/23/2022







Accreditation # 80585

The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]

Analyst: SD *Test Date: 12/15/2022*

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

111389-CN

ID	Weight %	Concentration (mg/g)	oncentration (mg/g)		
Δ9-ΤΗС	0.0804	0.804			
THCV	ND	ND			
CBD	0.464	4.64			
CBDV	ND	ND			
CBG	0.0527	0.527			
CBC	0.0613	0.613			
CBN	ND	ND			
THCA	0.562	5.62			
CBDA	17.3	173			
CBGA	0.381	3.81			
CBDVA	ND	ND			
Δ8-ΤΗС	ND	ND			
exo-THC	ND	ND			
Total	18.9	189	0%	Cannabinoids (wt%)	17.3%
Max THC	0.573	5.73	Limit of Quantitation (LOQ) = 0.0068 wt%		
Max CBD	15.6	156		Limit of Detection (LOD) =	0.0023 wt%

Ratio of Total CBD to THC 27.3:1

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: MAX THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND=None detected above the limits of detection (LOD), which is one third of Limit of Quantification (LOQ). For values reported as "<LOQ", the estimated value is included in the calculated Total.

TP: Terpenes Profile [WI-10-37]

Analyst: AA

Test Date: 12/15/2022

Client sample analysis was performed using full evaporative technique (FET) headspace sample delivery and gas chromatographic (GC) compound separation or solvent extraction followed by gas chromatographic (GC) compound separation. A combination of flame ionization detection (FID) and/or mass spectrometric (MS) detection with mass spectral confirmation against the National Institute of Standards and Technology (NIST) Mass Spectral Database, Revision 2017 were used. Chromatographic and/or mass spectral data were processed by quantitatively comparing the analytical peak areas against calibration curves prepared from certified reference standards.

111389-TP

alpha-pinene 80-56-8 0.156 1,560 camphene 79-92-5 ND ND ND beta-pinene 127-91-3 0.0954 954 beta-myrcene 123-35-3 0.854 8,540 alpha-phellandrene 99-83-2 0.0115 115 delta-3-carene 13466-78-9 ND ND ND alpha-terpinene 99-86-5 ND ND ND D-limonene 5989-27-5 0.138 1,380 eucalyptol 470-82-6 ND ND ND alpha-ocimene 502-99-8 ND ND ND alpha-ocimene 502-99-8 ND ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND ND Isinalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND ND menthol 89-78-1 ND ND menthol 89-78-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 470-66-3 ND ND trans-nerolidol 470-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	Compound	CAS	Conc. (wt%)	Conc. (ppm)	Qualitative Profile
camphene 79-92-5 ND ND sabinene 3387-41-5 ND ND beta-pinene 127-91-3 0.0954 954 beta-myrcene 123-35-3 0.854 8,540 alpha-phellandrene 99-83-2 0.0115 115 delta-3-carene 13466-78-9 ND ND alpha-terpinene 99-86-5 ND ND p-cymene 99-87-6 ND ND D-limonene 5989-27-5 0.138 1,380 eucalyptol 470-82-6 ND ND alpha-ocimene 502-99-8 ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1		1	1 1		Quantum V 10110
sabinene 3387-41-5 ND ND beta-pinene 127-91-3 0.0954 954 beta-myrcene 123-35-3 0.854 8,540 alpha-phellandrene 99-83-2 0.0115 115 delta-3-carene 13466-78-9 ND ND alpha-terpinene 99-86-5 ND ND p-cymene 99-87-6 ND ND p-cymene 99-87-6 ND ND p-limonene 598-27-5 0.138 1,380 eucalyptol 470-82-6 ND ND alpha-ocimene 502-99-8 ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1					
beta-pinene 127-91-3 0.0954 954 beta-myrcene 123-35-3 0.854 8,540 alpha-phellandrene 99-83-2 0.0115 115 delta-3-carene 13466-78-9 ND ND ND alpha-terpinene 99-86-5 ND ND ND D-limonene 598-27-5 0.138 1,380 eucalyptol 470-82-6 ND ND ND alpha-ocimene 502-99-8 ND ND ND alpha-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND ND menthol 89-78-1 ND ND menthol 89-78-1 ND ND ND geraniol 106-24-1 ND ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 40716-66-3 ND ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437					
beta-myrcene	beta-pinene	127-91-3	0.0954	954	
alpha-phellandrene delta-3-carene alpha-terpinene p-cymene 99-86-5 ND ND ND D-limonene 5989-27-5 0.138 1,380 eucalyptol alpha-ocimene 502-99-8 ND ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND ND ND L-fenchone 7787-20-4 ND Utrans-nerolidol 3790-78-1 ND		123-35-3	0.854		
delta-3-carene 13466-78-9 ND ND alpha-terpinene 99-86-5 ND ND p-cymene 99-87-6 ND ND D-limonene 5989-27-5 0.138 1,380 eucalyptol 470-82-6 ND ND alpha-ocimene 502-99-8 ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 40716-66-3 ND ND varyophyllene oxide 1139		99-83-2	0.0115		
p-cymene 99-87-6 ND ND ND D-limonene 5989-27-5 0.138 1,380 eucalyptol 470-82-6 ND ND alpha-ocimene 502-99-8 ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND menthol 89-78-1 ND ND menthol 89-78-1 ND ND menthol 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437		13466-78-9	ND	ND	
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eucalyptol 470-82-6 ND ND ND alpha-ocimene 502-99-8 ND ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1.850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND menthol 89-78-1 ND ND ND geraniol 106-24-1 ND ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	p-cymene	99-87-6	ND	ND	
alpha-ocimene 502-99-8 ND ND beta-ocimene 13877-91-3 0.0419 419 gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	D-limonene	5989-27-5	0.138	1,380	
beta-ocimene gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND ND menthol 89-78-1 ND ND geraniol 106-24-1 ND ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND ND trans-nerolidol 40716-66-3 ND ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	eucalyptol	470-82-6	ND	ND	
gamma-terpinene 99-85-4 ND ND terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	alpha-ocimene	502-99-8	ND	ND	
terpinolene 586-62-9 0.185 1,850 L-fenchone 7787-20-4 ND ND linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	beta-ocimene	13877-91-3	0.0419	419	
L-fenchone 7787-20-4 ND	gamma-terpinene	99-85-4	ND	ND	
linalool 78-70-6 0.0333 334 isopulegol 89-79-2 ND ND ND menthol 89-78-1 ND ND ND geraniol 106-24-1 ND ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	terpinolene	586-62-9	0.185	1,850	
isopulegol 89-79-2 ND ND menthol 89-78-1 ND ND geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	L-fenchone	7787-20-4	ND	ND	
menthol 89-78-1 ND ND geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	linalool	78-70-6	0.0333	334	
geraniol 106-24-1 ND ND beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	isopulegol	89-79-2	ND	ND	
beta-caryophyllene 87-44-5 0.102 1,020 alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	menthol	89-78-1	ND	ND	
alpha-humulene 6753-98-6 0.0754 754 cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	geraniol	106-24-1	ND	ND	
cis-nerolidol 3790-78-1 ND ND trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	beta-caryophyllene	87-44-5	0.102	1,020	
trans-nerolidol 40716-66-3 ND ND caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	alpha-humulene	6753-98-6	0.0754	754	
caryophyllene oxide 1139-30-6 0.0097 96.5 guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	cis-nerolidol	3790-78-1	ND	ND	
guaiol 489-86-1 0.112 1,120 alpha-bisabolol 23089-26-1 0.0437 437	trans-nerolidol	40716-66-3	ND	ND	
alpha-bisabolol 23089-26-1 0.0437 437	caryophyllene oxide	1139-30-6	0.0097	96.5	
	guaiol	489-86-1	0.112	1,120	
wt% 0.00 0.50 1.	alpha-bisabolol	23089-26-1	0.0437	437	
				wt% 0.	.00 0.50 1.0

Total Terpene: 1.9 wt%

END OF REPORT

^{*} Certified reference standard not available for this compound. Concentration is estimated using the response factor from alpha-pinene. ND = None Detected. RL = Reporting Limit of 5 ppm.