

CERTIFICATE OF ANALYSIS

Prepared for:

Bent Paddle Brewing Co

1912 W Michigan St. Duluth, MN USA 55806

THC+ Mango Tangerine

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	Page 1 of 4
033023	Various	Unit	
Reported:	Started:	Received:	
05Apr2023	31Mar2023	31Mar2023	

Cannabinoids Test ID: T000240192

Methods: TM14 (HPLC-DAD)	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.166	0.516	<loq< td=""><td><loq< td=""><td>Amendment to</td></loq<></td></loq<>	<loq< td=""><td>Amendment to</td></loq<>	Amendment to
Cannabichromenic Acid (CBCA)	0.151	0.472	ND	ND	T000240192 issued
Cannabidiol (CBD)	0.553	1.334	7.050	0.00	on 31Mar2023 to
Cannabidiolic Acid (CBDA)	0.567	1.369	ND	ND	add the batch ID. # of Servings = 1,
Cannabidivarin (CBDV)	0.131	0.316	ND	ND	Sample
Cannabidivarinic Acid (CBDVA)	0.236	0.571	ND	ND	Weight=355g
Cannabigerol (CBG)	0.094	0.293	<loq< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></loq<>	
Cannabigerolic Acid (CBGA)	0.393	1.226	ND	ND	
Cannabinol (CBN)	0.123	0.382	<loq< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></loq<>	
Cannabinolic Acid (CBNA)	0.268	0.836	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.468	1.460	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.425	1.326	6.590	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.377	1.175	ND	ND	
Tetrahydrocannabivarin (THCV)	0.086	0.267	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.332	1.036	ND	ND	
Total Cannabinoids			13.640	0.00	
Total Potential THC			6.590	0.00	
Total Potential CBD			7.050	0.00	

Final Approval

Waternheimer 10:40:00 AM MDT

Karen Winternheimer 05Apr2023

PREPARED BY / DATE

Samantha Smoll 05Apr2023 10:46:00 AM MDT

Sam Smith

APPROVED BY / DATE



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Microbial **Contaminants**

Test ID: T000240194 Methods: TM25 (PCR) TM24, TM26,			Quantitation		
TM27 (Culture Plating)	Method	LOD	Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Amendment to T000240194 issued – on 03Apr2023 to add the batch ID.
Salmonella	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and
Total Yeast and Mold*	TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	foreign matter
Total Aerobic Count*	TM26: Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵	None Detected	
Total Coliforms*	TM27: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
					-

Final Approval

Eden Thompson	Eden Thompson-Wright 05Apr2023 10:43:00 AM MDT	Buanne Maillet	Brianne Maillot 05Apr2023 11:02:00 AM MDT
PREPARED BY / DATE		APPROVED BY / DATE	

Heavy Metals

Test ID: T000240195 Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 4.06	ND	
Cadmium	0.05 - 4.56	ND	
Mercury	0.04 - 4.27	ND	
Lead	0.05 - 4.52	ND	

Final Approval

Sam Smith Samantha Small

05Apr2023 03:03:00 PM MDT

Karen Winternheimer 05Apr2023 W Wtenheimer 03:31:00 PM MDT

PREPARED BY / DATE

APPROVED BY / DATE



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Pesticides

Test ID: T000240193

Methods: TM17			
(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)	
Abamectin	382 - 2811	ND	Ma
Acephate	37 - 2762	ND	Me
Acetamiprid	42 - 2735	ND	Me
Azoxystrobin	42 - 2738	ND	Me
Bifenazate	40 - 2715	ND	МС
Boscalid	43 - 2784	ND	МС
Carbaryl	42 - 2710	ND	My
Carbofuran	43 - 2720	ND	Na
Chlorantraniliprole	37 - 2746	ND	Ox
Chlorpyrifos	46 - 2778	ND	Pa
Clofentezine	269 - 2773	ND	Per
Diazinon	282 - 2754	ND	Ph
Dichlorvos	296 - 2724	ND	Pro
Dimethoate	43 - 2747	ND	Pro
E-Fenpyroximate	291 - 2794	ND	Руг
Etofenprox	43 - 2836	ND	Spi
Etoxazole	294 - 2770	ND	Spi
Fenoxycarb	39 - 2742	ND	Spi
Fipronil	35 - 2930	ND	Spi
Flonicamid	47 - 2779	ND	Spi
Fludioxonil	277 - 2816	ND	Spi
Hexythiazox	44 - 2808	ND	Tel
Imazalil	279 - 2726	ND	Thi
Imidacloprid	48 - 2748	ND	Thi
Kresoxim-methyl	25 - 2800	ND	Tri

	Dynamic Range (ppb)	Result (ppb)
Malathion	293 - 2714	ND
Metalaxyl	43 - 2733	ND
Methiocarb	42 - 2732	ND
Methomyl	40 - 2755	ND
MGK 264 1	168 - 1617	ND
MGK 264 2	134 - 1131	ND
Myclobutanil	48 - 2792	ND
Naled	49 - 2788	ND
Oxamyl	40 - 2775	ND
Paclobutrazol	46 - 2721	ND
Permethrin	306 - 2775	ND
Phosmet	41 - 2765	ND
Prophos	289 - 2725	ND
Propoxur	41 - 2729	ND
Pyridaben	300 - 2826	ND
Spinosad A	34 - 2246	ND
Spinosad D	50 - 512	ND
Spiromesifen	266 - 2783	ND
Spirotetramat	274 - 2762	ND
Spiroxamine 1	18 - 1189	ND
Spiroxamine 2	25 - 1577	ND
Tebuconazole	283 - 2715	ND
Thiacloprid	44 - 2755	ND
Thiamethoxam	43 - 2798	ND
Trifloxystrobin	43 - 2770	ND

Final Approval



Karen Winternheimer 07Apr2023 Merheimer 11:15:00 AM MDT

Sam Smith Sowenthe Smith 07Apr2023 11:22:00 AM MDT

APPROVED BY / DATE



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Definitions

https://results.botanacor.com/api/v1/coas/uuid/0ee21af8-9012-4590-86aa-d057e5429b53

LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THC *****(0.877)) and Total CBD = (CBD *****(0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or – the measurement uncertainty. Total Potential THC is calculated by dynamic range of the method) during decarboxylation step. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total PC = THC + (THC *****(0.877)). ALOQ = Above Limit of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: $10^2 = 100$ CFU, $10^3 = 1,000$ CFU, $10^4 = 10,000$ CFU.

Testing results are based solely upon the sample submitted to SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit A2LA for more details.



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