

Hightened - Mary Jane's Mule

CERTIFICATE OF ANALYSIS

Prepared for:

Bent Paddle Brewing Co

1912 W Michigan St. Duluth, MN USA 55806

Batch ID or Lot Number: 013024 -HIMJ	Test, Test ID and Methods: Various	Matrix: Unit	Page 1 of 4	
Reported: 26Jan2024	Started: 26Jan2024	Received: 26Jan2024		

Cannabinoids + 10. T00026002

Methods: TM14 (HPLC-DAD)	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.151	0.518	ND	ND	# of Servings = 1
Cannabichromenic Acid (CBCA)	0.138	0.474	ND	ND	Sample
Cannabidiol (CBD)	0.478	1.489	ND	ND	Weight=355g
Cannabidiolic Acid (CBDA)	0.490	1.527	ND	ND	
Cannabidivarin (CBDV)	0.113	0.352	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.204	0.637	ND	ND	
Cannabigerol (CBG)	0.086	0.294	0.360	0.00	
Cannabigerolic Acid (CBGA)	0.358	1.229	ND	ND	
Cannabinol (CBN)	0.112	0.384	<loq< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></loq<>	
Cannabinolic Acid (CBNA)	0.245	0.838	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.427	1.464	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.388	1.330	10.910	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.344	1.178	ND	ND	
Tetrahydrocannabivarin (THCV)	0.078	0.267	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.303	1.039	ND	ND	
Total Cannabinoids			11.270	0.00	
Total Potential THC			10.910	0.00	
Total Potential CBD			ND	ND	

Final Approval

Samantha Smith 27Jan2024 05:32:00 PM MST

Sam Smith

PREPARED BY / DATE

Karen Winternheimer *Шительними* 27Jап2024 05:33:00 РМ МST

APPROVED BY / DATE



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Microbial **Contaminants**

Test ID: T000268929 Methods: TM25 (PCR) TM24, TM26,		Quantitation			
TM27 (Culture Plating)	Method	LOD	Range	Result	Notes
STEC	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	Free from visual mold, mildew, and
Salmonella	TM25: PCR	10 ⁰ CFU/25g	NA	Absent	– foreign matter
Total Yeast and Mold*	TM24: Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴	None Detected	
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



Brianne Maillot 02:11:00 PM MST

Eden Thompson

Eden Thompson-Wright 29Jan2024 03:10:00 PM MST

PREPARED BY / DATE

APPROVED BY / DATE



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Result (ppb)

ND ND

ND

ND

ND

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013024 -HIMJ	Various	Unit	
Reported:	Started:	Received:	
26Jan2024	26Jan2024	26Jan2024	

Pesticides

Methods: TM17

Test ID: T000268928

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)
Abamectin	297 - 2195	ND	Malathion	296 - 2576
Acephate	44 - 2597	ND	Metalaxyl	44 - 2583
Acetamiprid	45 - 2581	ND	Methiocarb	47 - 2641
Azoxystrobin	46 - 2567	ND	Methomyl	43 - 2646
Bifenazate	45 - 2568	ND	MGK 264 1	178 - 1515
Boscalid	49 - 2555	ND	MGK 264 2	117 - 1003
Carbaryl	43 - 2566	ND	Myclobutanil	55 - 2594
Carbofuran	45 - 2534	ND	Naled	50 - 2469
Chlorantraniliprole	52 - 2601	ND	Oxamyl	44 - 2645
Chlorpyrifos	39 - 2515	ND	Paclobutrazol	49 - 2530
Clofentezine	300 - 2514	ND	Permethrin	290 - 2566
Diazinon	278 - 2558	ND	Phosmet	42 - 2443
Dichlorvos	275 - 2558	ND	Prophos	297 - 2596
Dimethoate	46 - 2577	ND	Propoxur	44 - 2522
E-Fenpyroximate	267 - 2577	ND	Pyridaben	300 - 2562
Etofenprox	46 - 2527	ND	Spinosad A	34 - 1922
Etoxazole	299 - 2470	ND	Spinosad D	66 - 575
Fenoxycarb	43 - 2584	ND	Spiromesifen	282 - 2544
Fipronil	48 - 2565	ND	Spirotetramat	292 - 2583
Flonicamid	49 - 2594	ND	Spiroxamine 1	18 - 964
Fludioxonil	294 - 2592	ND	Spiroxamine 2	27 - 1560
Hexythiazox	42 - 2570	ND	Tebuconazole	285 - 2606
Imazalil	287 - 2597	ND	Thiacloprid	45 - 2593
Imidacloprid	47 - 2629	ND	Thiamethoxam	45 - 2619
Kresoxim-methyl	44 - 2622	ND	Trifloxystrobin	48 - 2543

Final Approval



Karen Winternheimer 01Feb2024 08:45:00 AM MST

01Feb2024 Samantha Small 08:46:00 AM MST

APPROVED BY / DATE





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Heavy Metals

Test ID: T000268930 Methods: TM19 (ICP-MS): Heavy						
Arsenic	0.04 - 4.45	ND				
Cadmium	0.05 - 4.62	ND				
Mercury	0.05 - 4.75	ND				
Lead	0.05 - 4.70	ND				

Final Approval

Sam Smith Samantha Smoth 02Feb2024 01:35:00 PM MST PREPARED BY / DATE

Karen Winternheimer 02Feb2024 Withmheimer 01:37:00 PM MST

APPROVED BY / DATE

Definitions

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

https://results.botanacor.com/api/v1/coas/uuid/9b49627d-0130-4401-ab33-be2425c4a4bd

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-THCa *(0.877)) and Total CBD = CBD + (CBDa *(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 using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa *(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, $10^5 = 100,000$ 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 A2LA Cert #: 4329.02 Chemical; 4329.03 Biological. 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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