

# CERTIFICATE OF ANALYSIS

Prepared for:

### Lupulin Brewing Company

570 Humboldt Drive, Ste. 107 Big Lake, MN USA 55309

### **Smazey Strawberry Lemonade**

Batch ID or Lot Number:	Test:	Reported:	USDA License:	
<b>SMZ21</b>	<b>Potency</b>	<b>06Jun2023</b>	N/A	
Matrix:	Test ID:	Started:	Sampler ID:	
Unit	T000245637	05Jun2023	N/A	
	Method(s): TM14 (HPLC-DAD)	Received: 05Jun2023	Status: N/A	

Cannabinoids	LOD (mg)	<b>LOQ</b> (mg)	Result (mg)	<b>Result</b> (mg/g)	Notes
Cannabichromene (CBC)	0.206	0.728	ND	ND	# of Servings = 1,
Cannabichromenic Acid (CBCA)	0.188	0.666	ND	ND	Sample
Cannabidiol (CBD)	0.709	1.934	ND	ND	Weight=473g
Cannabidiolic Acid (CBDA)	0.728	1.984	ND	ND	
Cannabidivarin (CBDV)	0.168	0.457	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.304	0.828	ND	ND	
Cannabigerol (CBG)	0.117	0.413	ND	ND	
Cannabigerolic Acid (CBGA)	0.488	1.727	ND	ND	
Cannabinol (CBN)	0.152	0.539	ND	ND	
Cannabinolic Acid (CBNA)	0.333	1.179	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.582	2.058	<loq< td=""><td><loq< td=""><td></td></loq<></td></loq<>	<loq< td=""><td></td></loq<>	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.528	1.869	9.920	0.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.468	1.656	ND	ND	
Tetrahydrocannabivarin (THCV)	0.106	0.376	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.413	1.461	ND	ND	
Total Cannabinoids			9.920	0.00	
Total Potential THC			9.920	0.00	
Total Potential CBD			ND	ND	

### **Final Approval**

PREPARED BY / DATE

Samantha Sma

Sam Smith 06Jun2023 01:04:00 PM MDT

APPROVED BY / DATE

Karen Winternheimer 06Jun2023 01:06:00 PM MDT



Definitions

% = % (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-THCa \*(0.877)) and Total CBD = CBD + (CBDa \*(0.877)).

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.





Smazey

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### Lupulin Brewing Company

570 Humboldt Drive, Ste. 107 Big Lake, MN USA 55309

Batch ID or Lot Number:	Test:	Reported:	USDA License:	
SMZ21-SMZ24	<b>Pesticides</b>	<b>25May2023</b>	NA	
Matrix:	Test ID:	Started:	Sampler ID:	
Finished Product	T000244088	23May2023	NA	
	Method(s): TM17 (LC-QQ LC MS/MS)	Received: 18May2023	Status: NA	

Pesticides	<b>Dynamic Range</b> (ppb)	<b>Result</b> (ppb)		<b>Dynamic Range</b> (ppb)	<b>Result</b> (ppb)
Abamectin	272 - 2715	ND	Malathion	288 - 2719	ND
Acephate	44 - 2775	ND	Metalaxyl	39 - 2714	ND
Acetamiprid	44 - 2747	ND	Methiocarb	46 - 2692	ND
Azoxystrobin	45 - 2714	ND	Methomyl	45 - 2768	ND
Bifenazate	39 - 2690	ND	MGK 264 1	167 - 1674	ND
Boscalid	31 - 2648	ND	MGK 264 2	101 - 1063	ND
Carbaryl	43 - 2748	ND	Myclobutanil	47 - 2722	ND
Carbofuran	41 - 2718	ND	Naled	52 - 2771	ND
Chlorantraniliprole	44 - 2660	ND	Oxamyl	46 - 2772	ND
Chlorpyrifos	40 - 2733	ND	Paclobutrazol	44 - 2722	ND
Clofentezine	291 - 2714	ND	Permethrin	260 - 2692	ND
Diazinon	281 - 2707	ND	Phosmet	42 - 2726	ND
Dichlorvos	272 - 2769	ND	Prophos	304 - 2666	ND
Dimethoate	43 - 2729	ND	Propoxur	43 - 2740	ND
E-Fenpyroximate	270 - 2726	ND	Pyridaben	294 - 2663	ND
Etofenprox	41 - 2666	ND	Spinosad A	33 - 2083	ND
Etoxazole	292 - 2672	ND	Spinosad D	64 - 658	ND
Fenoxycarb	14 - 2725	ND	Spiromesifen	258 - 2708	ND
Fipronil	28 - 2650	ND	Spirotetramat	265 - 2777	ND
Flonicamid	54 - 2811	ND	Spiroxamine 1	20 - 1162	ND
Fludioxonil	278 - 2651	ND	Spiroxamine 2	25 - 1480	ND
Hexythiazox	43 - 2705	ND	Tebuconazole	286 - 2782	ND
Imazalil	276 - 2741	ND	Thiacloprid	42 - 2728	ND
Imidacloprid	50 - 2785	ND	Thiamethoxam	46 - 2775	ND
Kresoxim-methyl	45 - 2723	ND	Trifloxystrobin	42 - 2708	ND

### **Final Approval**

PREPARED BY / DATE

Alex Benson 25May2023 12:41:00 PM MDT

APPROVED BY / DATE

Phillip Travisano 25May2023 02:50:00 PM MDT



https://results.botanacor.com/api/v1/coas/uuid/56980591-0a11-43ce-b07c-5b5960a37adc

Definitions

ND = None Detected (defined by dynamic range of the method)

Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range ppb = Parts Per Billion

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#### **Lupulin Brewing Company**

570 Humboldt Drive, Ste. 107 Big Lake, MN USA 55309

Batch ID or Lot Number: <b>SMZ21-SMZ24</b>	Test: <b>Microbial Contaminants</b>	Reported: <b>23May2023</b>	USDA License: NA
Matrix:	Test ID:	Started:	Sampler ID:
Finished Product	T000244089	19May2023	NA
	Method(s):	Received:	Status:
	TM25 (PCR) TM24, TM26, TM27 (Culture Plating)	18May2023	NA

_			Quantitation		
Contaminants	Method	LOD	Range	Result	Notes
STEC	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	Free from visual mold, mildew, and — foreign matter
Salmonella	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	7.4x10^3 CFU/g	_
Total Aerobic Count*	TM26: Culture Plating	10 <sup>2</sup> CFU/g	1.0x10 <sup>3</sup> - 1.5x10 <sup>5</sup>	<lloq< td=""><td></td></lloq<>	
Total Coliforms*	TM27: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	_

### **Final Approval**

Vent Velun

PREPARED BY / DATE

Brett Hudson 22May2023 03:51:00 PM MDT

Eden Thompson

Eden Thompson-Wright 23May2023 09:47:00 AM MDT



APPROVED BY / DATE

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Definitions

\* Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples:  $10^2 = 100 \text{ CFU}$ ,  $10^3 = 1,000 \text{ CFU}$ ,  $10^4 = 10,000 \text{ CFU}$ ,  $10^5 = 100,000 \text{ CFU}$ CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection

CFU/g = Colony Forming Units per Gram, LOD = Limit of Detection ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation STEC = Shiga Toxin-Producing E. coli

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#### Lupulin Brewing Company

570 Humboldt Drive, Ste. 107 Big Lake, MN USA 55309

#### Smazey

Batch ID or Lot Number:	Test:	Reported:	USDA License:
SMZ21-SMZ24	<b>Heavy Metals</b>	22May2023	NA
Matrix:	Test ID:	Started:	Sampler ID:
Finished Product	T000244090	19May2023	NA
	Method(s):	Received:	Status:
	TM19 (ICP-MS): Heavy Metals	18May2023	NA

Heavy Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 4.53	ND	
Cadmium	0.04 - 4.47	ND	
Mercury	0.05 - 4.60	ND	
Lead	0.04 - 4.50	ND	

### **Final Approval**

PREPARED BY / DATE

Samanthe Smo

Sam Smith 22May2023 07:47:00 AM MDT

APPROVED BY / DATE

Karen Winternheimer 22May2023 07:49:00 AM MDT



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**Definitions** ND = None Detected (defined by dynamic range of the method) Dynamic Range = Limit of Quantitation (LOQ) through Upper Limit of Method Range

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