

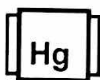
# Certificate of Analysis

Oct 23, 2020 |

**PASSED**

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**PRODUCT IMAGE SAFETY RESULTS**

 Pesticides  
PASSED

 Heavy Metals  
PASSED

 Microbials  
PASSED

 Mycotoxins  
PASSED

 Residuals  
Solvents  
NOT TESTED

 Filtration  
PASSED

 Water Activity  
NOT TESTED

 Moisture  
NOT TESTED

 Terpenes  
NOT TESTED

MISC.

**CANNABINOID RESULTS**

**Total THC**  
**0.285%**

**Total CBD**  
**9.045%**

**Total Cannabinoids**  
**10.878%**


D9-THC	THCA	CBD	CBDA	D8-THC	THCV	CBN	CBDV	CBC	CBG	CBGA
0.121%	0.188%	1.459%	8.650%	ND	ND	ND	ND	0.232%	0.052%	0.176%
1.210 mg/g	1.880 mg/g	14.590 mg/g	86.500 mg/g	ND	ND	ND	ND	2.320 mg/g	0.520 mg/g	1.760 mg/g
LOD 0.0001	0.001	0.0001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
%	%	%	%	%	%	%	%	%	%	%


**Filtration**
**PASSED**

Analyzed By	Weight	Extraction date	LOD(ppm)	Extracted By
1	NA	NA	NA	NA

Analysis Method -SOP.T.40.013	Batch Date :
Analytical Batch -NA	Reviewed On - 10/23/20 10:09:50
Instrument Used :	
Running On :	

This includes but is not limited to: pesticides, heavy metals, packaging contaminants, and manufacturing waste and byproducts. All SH-26T States Microbials are for inspection.

**Cannabinoid Profile Test**

Analyzed by	Weight	Extraction date :	Extracted By :
19	0.2674g	NA	NA
Analysis Method -SOP.T.40.020	SOP.T.30.050	Reviewed On - 10/22/20 11:08:21	Batch Date : 10/21/20 16:08:54
Analytical Batch -M0001310POT	Instrument Used : HPLC Potency Analyzer	Running On :	

Reagent	Dilution	Consums. ID
	40	

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-UV). (Method: SOP.T.30.050 for sample prep and Shimadzu High Sensitivity Method SOP.T.40.020 for analysis. LOD for all cannabinoids is 1 mg/L. Measurement of cannabinoid 2.7%.

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**David Greene**

Lab Director

 State License # 19-05-02P  
 ISO Accreditation #  
 17025:2017 #97164



Signature

10/23/2020

Signed On

# Certificate of Analysis

**PASSED**
**Page 2 of 3**


## Pesticides

**PASSED**

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.020	ppm	0.5	ND	PRALLETHRIN	0.050	ppm	0.2	ND
ACEPHATE	0.010	ppm	0.5	ND	PROPICONAZOLE	0.010	ppm	0.4	ND
ACEQUINOCYL	0.02	ppm	2	ND	PROPOXUR	0.010	ppm	0.2	ND
ACETAMIPRID	0.010	ppm	0.2	ND	PYRETHRIN I	0.010	ppm	1	ND
ALDICARB	0.020	ppm	0.4	ND	PYRIDABEN	0.005	ppm	0.2	ND
AZOXYSTROBIN	0.010	ppm	0.2	ND	SPINETORAM	0.005	ppm	0.5	ND
BIFENAZATE	0.010	ppm	0.2	ND	SPINOSAD (SPINOSYN A)	0.010	ppm	0.2	ND
BIFENTHRIN	0.010	ppm	0.2	ND	SPINOSAD (SPINOSYN D)	0.010	ppm	0.2	ND
BOSCALID	0.005	ppm	0.4	ND	SPIROMESIFEN	0.010	ppm	0.2	ND
CARBARYL	0.010	ppm	0.2	ND	SPIROTETRAMAT	0.020	ppm	0.2	ND
CARBOFURAN	0.010	ppm	0.2	ND	SPIROXAMINE	0.010	ppm	0.4	ND
CHLORANTRANILIPROLE	0.010	ppm	0.2	ND	TEBUCONAZOLE	0.010	ppm	0.4	ND
CHLORPYRIFOS	0.010	ppm	0.2	ND	THIACLOPRID	0.010	ppm	0.2	ND
CLOFENTEZINE	0.010	ppm	0.2	ND	THIAMETHOXAM	0.010	ppm	0.5	ND
COUMAPHOS	0.005	ppm	0.2	ND	TRIFLOXYSTROBIN	0.010	ppm	0.2	ND
CYPERMETHRIN	0.010	ppm	1	ND					
DAMINOZIDE	0.010	ppm	1	ND					
DIAZANON	0.010	ppm	0.2	ND					
DICHLORVOS	0.050	ppm	0.1	ND					
DIMETHOATE	0.010	ppm	0.2	ND					
DIMETHOMORPH	0.005	ppm	0.1	ND					
ETHOPROPHOS	0.010	ppm	0.2	ND					
ETOFENPROX	0.010	ppm	0.4	ND					
ETOXAZOLE	0.010	ppm	0.2	ND					
FENHEXAMID	0.005	ppm	0.1	ND					
FENOXYCARB	0.010	ppm	0.2	ND					
FENPYROXIMATE	0.010	ppm	0.4	ND					
FIPRONIL	0.020	ppm	0.4	ND					
FLONICAMID	0.010	ppm	1	ND					
FLUDIOXONIL	0.010	ppm	0.4	ND					
HEXYTHIAZOX	0.010	ppm	1	ND					
IMAZALIL	0.010	ppm	0.2	ND					
IMIDACLOPRID	0.010	ppm	0.4	ND					
KRESOXIM-METHYL	0.010	ppm	0.4	ND					
MALATHION	0.010	ppm	0.2	ND					
METALAXYL	0.010	ppm	0.2	ND					
METHIOCARB	0.010	ppm	0.2	ND					
METHOMYL	0.010	ppm	0.6	ND					
MEVINPHOS	0.010	ppm	0.1	ND					
MYCLOBUTANIL	0.010	ppm	0.2	ND					
NALED	0.010	ppm	0.5	ND					
OXAMYL	0.010	ppm	1	ND					
PACLOBUTRAZOL	0.010	ppm	0.4	ND					
PERMETHRINS	0.050	ppm	1	ND					
PHOSMET	0.010	ppm	0.2	ND					
PIPERONYL BUTOXIDE	0.010	ppm	3	ND					



## Pesticides

**PASSED**

Analyzed by **1** Weight **1g** Extraction date **10/23/20 10:10:00** Extracted By **1**  
 Analysis Method - SOP.T.30.060, SOP.T.40.060 ,  
 Analytical Batch - M0001318PES Reviewed On- 10/23/20 10:09:50  
 Instrument Used : LCMSMS 8060 P  
 Running On :  
 Batch Date : 10/23/20 10:10:30

Reagent	Dilution	Consums. ID
Pesticide screen is performed using LC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Currently we analyze for 57 Pesticides. (Method: SOP.T.30.060 Sample Preparation for Pesticides Analysis via LCMSMS and SOP.T40.060 Procedure for Pesticide Quantification Using LCMS). *		

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**David Greene**  
 Lab Director

 State License # 19-05-02P  
 ISO Accreditation #  
 17025:2017 #97164

  
 Signature

**10/23/2020**

Signed On



673 N. Bardstown Rd  
Mount Washington, KY, 40047, US

Kaycha Labs

BM IHP NM Jeff L. 101920

# Certificate of Analysis

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	<b>Microbials</b>	<b>PASSED</b>		<b>Mycotoxins</b>	<b>PASSED</b>
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Analyte	LOD	Result	Analyte	LOD	Units	Result	Action Level (PPM)
ASPERGILLUS_TERREUS_1J2		not present in 1 gram.	AFLATOXIN G2	0.001	ppm	ND	0.02
ASPERGILLUS_NIGER		not present in 1 gram.	AFLATOXIN G1	0.001	ppm	ND	0.02
ASPERGILLUS_FUMIGATUS		not present in 1 gram.	AFLATOXIN B2	0.001	ppm	ND	0.02
ASPERGILLUS_FLAVUS		not present in 1 gram.	AFLATOXIN B1	0.001	ppm	ND	0.02
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.	OCHRATOXIN A+	0.001	ppm	ND	0.02
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.					

Analysis Method -SOP.T.40.043  
Analytical Batch -NA Batch Date :  
Instrument Used :  
Running On :

Analysis Method -SOP.T.30.060, SOP.T.40.060  
Analytical Batch - | Reviewed On - 10/23/20 10:26:18  
Instrument Used :  
Running On :  
Batch Date :

Analyzed by	Weight	Extraction date	Extracted By
NA	NA	NA	NA

Analyzed by	Weight	Extraction date	Extracted By
NA	NA	NA	NA

Microbiological testing for Fungal and Bacterial Identification via Polymerase Chain Reaction (PCR) method consisting of sample DNA amplified via tandem Polymerase Chain Reaction (PCR) as a crude lysate which avoids purification. (Method SOP.T.40.043) If a pathogenic Escherichia Coli, Salmonella, Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, or Aspergillus terreus is detected in 1g of a sample, the sample fails the microbiological purity testing.

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T.30.060 for Sample Preparation and SOP.T.40.060 Procedure for Mycotoxins Quantification Using LCMS. LOQ 1.0 ppb). Total Aflatoxins (Aflatoxin B1, B2, G1, G2) must be <20µg/Kg. Ochratoxins must be <20µg/Kg.



**Heavy Metals**

**PASSED**

## Reagent

110119.52  
110119.44  
112519.01  
110119.36

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	ppm	ND	10
CADMIUM	0.02	ppm	ND	4.1
LEAD	0.02	ppm	1.740	10
MERCURY	0.02	ppm	ND	2

Analyzed by	Weight	Extraction date	Extracted By
18	0.484g	10/23/20 08 10 02	18

Analysis Method -SOP.T.40.050, SOP.T.30.052  
Analytical Batch -MO001317HEA | Reviewed On - 10/23/20 10:14:08  
Instrument Used : ICP-MS 2030  
Running On :  
Batch Date : 10/23/20 08:52:00

Heavy Metals screening is performed using ICP-MS (Inductively Coupled Plasma - Mass Spectrometer) which can screen down to below single digit ppb concentrations for regulated heavy metals using Method SOP.T.30.052 Sample Preparation for Heavy Metals Analysis via ICP-MS and SOP.T.40.050 Heavy Metals Analysis via ICP-MS. \*Action Limits based on Colorado Regulations.

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David Greene  
Lab Director

State License # 19-05-02P  
ISO Accreditation #  
17025:2017 #97164

  
Signature

10/23/2020

Signed On

## CBD Isolate

Sample ID: 2101CSALA4395.1186

Matrix: Other

Type: Other

Sample Size: 2 units

Batch Size:


Batch#: 0100010

Produced: 01/18/2021

Collected: 01/20/2021


Received: 01/20/2021

Completed: 01/21/2021

	ND	>99.9%	>99.9%
	Total THC	Total CBD	Total Cannabinoids

## Cannabinoids

Testing method: HPLC-SOP 101

Analyte	LOD	LOQ	Results	Results	
	mg/g	mg/g	%	mg/g	
CBD	0.18797	1.92917	>99.9	>999	
CBDV	0.38583	1.92917	0.2651	2.6514	
CBC	0.05936	1.92917	ND	ND	
CBDa	0.25722	1.92917	ND	ND	
CBG	0.49466	1.92917	ND	ND	
CBGa	0.23744	1.92917	ND	ND	
CBN	0.11872	1.92917	ND	ND	
THCa	0.10882	1.92917	ND	ND	
THCV	0.37594	1.92917	ND	ND	
Δ8-THC	0.17808	1.92917	ND	ND	
Δ9-THC	0.1385	1.92917	ND	ND	
<b>Total</b>			<b>&gt;99.9</b>	<b>&gt;999</b>	

Date Tested: 01/21/2021

Total THC = THCa \* 0.877 + d9-THC

Total CBD = CBDa \* 0.877 + CBD

LOQ = Limit of Quantitation; LOD = Limit of Detection; NT = Not Tested; ND = Not Detected.

If the totals appear &gt;99%, your analytical results show a combined total greater than 100%. Analytically, the results are valid based on compound purity and innate measurement uncertainties.


ISO / IEC 17025:2017 ACCREDITED  
LABORATORY  
Accreditation No. 73653



Douglas Duncan  
Lab Director  
01/21/2021



Cecilia Melgar  
COA Review  
01/21/2021

## CBD Isolate

Sample ID: 2101CSALA4395.1186

Matrix: Other

Type: Other

Sample Size: 2 units

Batch Size:

Batch#: 0100010

Produced: 01/18/2021

Collected: 01/20/2021

Received: 01/20/2021

Completed: 01/21/2021

## Residual Solvents

Testing method: HSGCMS-SOP 202

Pass

Analyte	LOD	LOQ	Limit	Results	Status
	µg/g	µg/g	µg/g	µg/g	
1,2-Dichloroethane	0.1524	0.4571	1	ND	Pass
Acetone	50.0	500.0	5000	ND	Pass
Acetonitrile	4.1	41.0	410	ND	Pass
Benzene	0.1905	0.6095	1	ND	Pass
Butane	50.0	500.0	5000	ND	Pass
Chloroform	0.3048	0.9905	1	ND	Pass
Ethanol	50.0	500.0	5000	ND	Pass
Ethyl acetate	50.0	500.0	5000	ND	Pass
Ethylene Oxide	0.1524	0.4952	1	ND	Pass
Ethyl ether	50.0	500.0	5000	ND	Pass
Heptane	50.0	500.0	5000	ND	Pass
Isopropyl alcohol	50.0	500.0	5000	ND	Pass
Methanol	30.0	300.0	3000	<LOQ	Pass
Methylene chloride	0.1143	0.381	1	ND	Pass
Hexane	2.9	29.0	290	ND	Pass
Pentane	50.0	500.0	5000	<LOQ	Pass
Propane	50.0	500.0	5000	ND	Pass
Toluene	8.9	89.0	890	ND	Pass
Trichloroethylene	0.1905	0.6476	1	ND	Pass
Total xylenes	21.7	217.0	2170	ND	Pass

Date Tested: 01/21/2021

LOQ = Limit of Quantitation; LOD = Limit of Detection; NT = Not Tested; ND = Not Detected.


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Accreditation No. 73653



Douglas Duncan  
Lab Director  
01/21/2021



Cecilia Melgar  
COA Review  
01/21/2021

**CBD Isolate**

<b>Batch ID:</b>	0100010	<b>Test ID:</b>	T000119537
<b>Type:</b>	Concentrate	<b>Submitted:</b>	01/19/2021 @ 08:35 AM
<b>Test:</b>	Pesticides	<b>Started:</b>	1/21/2021
<b>Method:</b>	TM17	<b>Reported:</b>	1/22/2021


**PESTICIDE RESIDUE**

Compound	Dynamic Range (ppb)	Result (ppb)	Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	34 - 2325	ND*	Malathion	270 - 2325	ND*
Acetamiprid	37 - 2325	ND*	Metalaxyl	40 - 2325	ND*
Abamectin	>285	ND*	Methiocarb	40 - 2325	ND*
Azoxystrobin	41 - 2325	ND*	Methomyl	42 - 2325	ND*
Bifenazate	38 - 2325	ND*	MGK 264 1	160 - 2325	ND*
Boscalid	41 - 2325	ND*	MGK 264 2	118 - 2325	ND*
Carbaryl	43 - 2325	ND*	Myclobutanil	39 - 2325	ND*
Carbofuran	41 - 2325	ND*	Naled	47 - 2325	ND*
Chlorantraniliprole	46 - 2325	ND*	Oxamyl	38 - 2325	ND*
Chlorpyrifos	51 - 2325	ND*	Paclobutrazol	42 - 2325	ND*
Clofentezine	278 - 2325	ND*	Permethrin	278 - 2325	ND*
Diazinon	269 - 2325	ND*	Phosmet	42 - 2325	ND*
Dichlorvos	>291	ND*	Prophos	279 - 2325	ND*
Dimethoate	36 - 2325	ND*	Propoxur	40 - 2325	ND*
E-Fenpyroximate	295 - 2325	ND*	Pyridaben	283 - 2325	ND*
Etofenprox	42 - 2325	ND*	Spinosad A	29 - 2325	ND*
Etoxazole	291 - 2325	ND*	Spinosad D	81 - 2325	ND*
Fenoxycarb	>42	ND*	Spiromesifen	>261	ND*
Fipronil	45 - 2325	ND*	Spirotetramat	>260	ND*
Flonicamid	50 - 2325	ND*	Spiroxamine 1	19 - 2325	ND*
Fludioxonil	>281	ND*	Spiroxamine 2	23 - 2325	ND*
Hexythiazox	44 - 2325	ND*	Tebuconazole	279 - 2325	ND*
Imazalil	262 - 2325	ND*	Thiacloprid	37 - 2325	ND*
Imidacloprid	39 - 2325	ND*	Thiamethoxam	40 - 2325	ND*
Kresoxim-methyl	46 - 2325	ND*	Trifloxystrobin	41 - 2325	ND*


\* ND = None Detected (Defined by Dynamic Range of the method)

N/A

**FINAL APPROVAL**


 Tyler Wiese  
 22-Jan-2021  
 12:13 PM

PREPARED BY / DATE


 Ben Minton  
 22-Jan-2021  
 7:58 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC 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 Botanacor Laboratories, LLC.

## CBD Isolate

<b>Batch ID:</b>	0100010	<b>Test ID:</b>	T000119538
<b>Type:</b>	Concentrate	<b>Submitted:</b>	01/19/2021 @ 08:35 AM
<b>Test:</b>	Metals	<b>Started:</b>	1/20/2021
<b>Method:</b>	TM19	<b>Reported:</b>	1/21/2021

## HEAVY METALS


Analyte	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.101 - 10.00	ND
Cadmium	0.097 - 9.69	ND
Mercury	0.097 - 9.70	ND
Lead	0.113 - 11.20	ND

\* ND = None Detected (Defined by Dynamic Range of the method)

## FINAL APPROVAL

 Sam Smith  
21-Jan-2021  
12:20 PM

PREPARED BY / DATE

 Ben Minton  
21-Jan-2021  
2:28 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC 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 Botanacor Laboratories, LLC.

Sample 254-063021-284

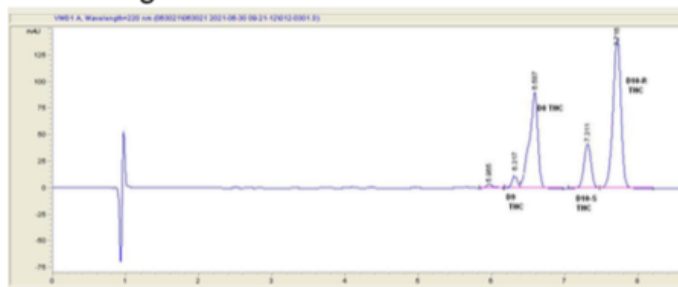
D10-210627

Sample Submitted: 06-30-2021; Report Date: 06-30-2021

D10-210627

Distillate

## Chromatogram



## Cannabinoid Profile



## Cannabinoid Profile by HPLC

0.20%

Calculated THC Yield

0.00%

Calculated CBD Yield

96.79%

Total Cannabinoids

Cannabinoid	% wt	mg/g
Delta-8-THC	40.96	409.6
THC	0.2	2.0
Delta-10-THC	55.63	556.3
<b>Total Cannabinoids</b>	<b>96.79</b>	<b>967.9</b>
<b>Calculated THC Yield</b>	<b>0.20</b>	<b>2.00</b>
<b>Calculated CBD Yield</b>	<b>0.00</b>	<b>0.00</b>
Calculated Maximum THC Yield = THC + 0.877 * THCA		
Calculated Maximum CBD Yield = CBD + 0.877 * CBDA		

Marin Analytics, LLC

250 Bel Marin Keys Blvd, Suite D4  
Novato, CA 94949

415-936-6477 / sarabiancalana1@gmail.com

  
Sara Biancalana  
Chief Scientist

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