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CERTIFICATE OF ANALYSIS

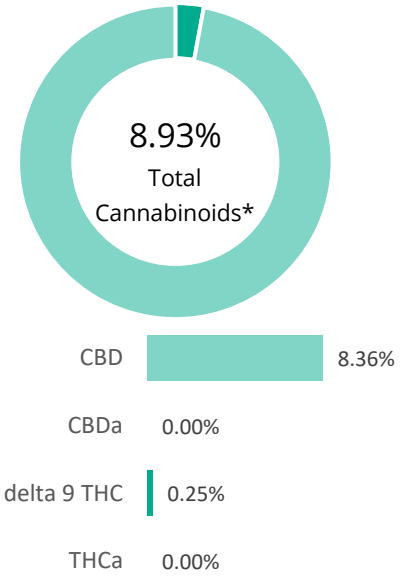
prepared for: Beak and Skiff Research

4473 Cherry Valley Tpke
Lafayette, NY 13084

O_CBD_DOIL_ORG_2400

Batch ID:	T0043	**Test ID:**	T000170372
Type:	Concentrate	**Submitted:**	10/20/2021 @ 10:27 AM
Test:	Potency	**Started:**	10/20/2021
Method:	TM14 (HPLC-DAD)	**Reported:**	10/21/2021

CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.01	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.01	0.25	2.5
Cannabidiolic acid (CBDA)	0.01	ND	ND
Cannabidiol (CBD)	0.01	8.36	83.6
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.02	ND	ND
Cannabinolic Acid (CBNA)	0.01	ND	ND
Cannabinol (CBN)	0.00	0.01	0.1
Cannabigerolic acid (CBGA)	0.01	ND	ND
Cannabigerol (CBG)	0.00	0.14	1.4
Tetrahydrocannabivarinic Acid (THCVA)	0.01	ND	ND
Tetrahydrocannabivarin (THCV)	0.00	ND	ND
Cannabidivarinic Acid (CBDVA)	0.01	ND	ND
Cannabidivarin (CBDV)	0.00	0.03	0.3
Cannabichromenic Acid (CBCA)	0.01	ND	ND
Cannabichromene (CBC)	0.01	0.14	1.4
Total Cannabinoids		**8.93**	**89.3**
Total Potential THC**		0.25	2.5
Total Potential CBD**		8.36	83.6

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)
* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.
** Total Potential THC/CBD 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)) and
Total CBD = CBD + (CBDa *(0.877))
ND = None Detected (Defined by Dynamic Range of the method)

NOTES:
N/A

FINAL APPROVAL

Hannah Wright
21-Oct-2021
3:07 PM
PREPARED BY / DATE

Daniel Weidensaul
21-Oct-2021
3:53 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. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_DOIL_ORG_2400

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
T0043	**Residual Solvents**	**10/22/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
N/A	T000170376	10/21/21	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM04 (GC-MS): Residual Solvents	10/20/2021 @ 10:27 AM	N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	73 - 1470	*ND
Butanes (Isobutane, n-Butane)	147 - 2947	*ND
Methanol	66 - 1327	*ND
Pentane	87 - 1734	*ND
Ethanol	103 - 2064	*ND
Acetone	104 - 2074	*ND
Isopropyl Alcohol	119 - 2374	*ND
Hexane	6 - 125	*ND
Ethyl Acetate	106 - 2122	*ND
Benzene	0 - 4	*ND
Heptanes	98 - 1957	*ND
Toluene	20 - 400	*ND
Xylenes (m,p,o-Xylenes)	152 - 3044	*ND

Notes

Karen Winternheimer
22-Oct-21
10:31 AM
PREPARED BY / DATE

Ryan Weems
22-Oct-21
10:34 AM
APPROVED BY / DATE

Definitions

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

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_DOIL_ORG_2400

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
T0043	**Pesticides**	**10/27/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000170373	10/26/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	10/20/2021 @ 10:27 AM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	35	ND	**Fenoxycarb**	49	ND	**Paclobutrazol**	56	ND
Acetamiprid	49	ND	**Fipronil**	51	ND	**Permethrin**	265	ND
Avermectin	279	ND	**Flonicamid**	47	ND	**Phosmet**	50	ND
Azoxystrobin	49	ND	**Fludioxonil**	296	ND	**Prophos**	275	ND
Bifenazate	48	ND	**Hexythiazox**	59	ND	**Propoxur**	45	ND
Boscalid	62	ND	**Imazalil**	275	ND	**Pyridaben**	256	ND
Carbaryl	48	ND	**Imidacloprid**	48	ND	**Spinosad A**	37	ND
Carbofuran	49	ND	**Kresoxim-methyl**	150	ND	**Spinosad D**	50	ND
Chlorantraniliprole	68	ND	**Malathion**	261	ND	**Spiromesifen**	349	ND
Chlorpyrifos	500	ND	**Metalaxyl**	51	ND	**Spirotetramat**	379	ND
Clofentezine	276	ND	**Methiocarb**	59	ND	**Spiroxamine 1**	23	ND
Diazinon	288	ND	**Methomyl**	50	ND	**Spiroxamine 2**	30	ND
Dichlorvos	275	ND	**MGK 264 1**	179	ND	**Tebuconazole**	275	ND
Dimethoate	51	ND	**MGK 264 2**	116	ND	**Thiacloprid**	46	ND
E-Fenpyroximate	310	ND	**Myclobutanil**	54	ND	**Thiamethoxam**	55	ND
Etofenprox	43	ND	**Naled**	48	ND	**Trifloxystrobin**	46	ND
Etoxazole	276	ND	**Oxamyl**	1500	ND			

Samantha Smith
Sam Smith
10/27/2021
3:13:00 PM

PREPARED BY / DATE

Daniel Weidensaul
Daniel Weidensaul
10/27/2021
3:23:00 PM

APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification
ppb = Parts per Billion

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_DOIL_ORG_2400

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
T0043	**Metals**	**10/26/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Unit	T000170375	10/25/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals	10/20/2021 @ 10:27 AM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.043 - 4.29	ND
Cadmium	0.043 - 4.26	ND
Mercury	0.041 - 4.06	ND
Lead	0.044 - 4.41	ND

Notes

Ryan Weems
26-Oct-21
1:11 PM
PREPARED BY / DATE

Sam Smith
26-Oct-21
1:13 PM
APPROVED BY / DATE

Definitions

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

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CERTIFICATE OF ANALYSIS

prepared for: BEAK AND SKIFF RESEARCH
4473 CHERRY VALLEY TPKE
LAFAYETTE, NY 13084

O_CBD_DOIL_ORG_2400

Batch ID:	T0043	**Test ID:**	T000170374
Matrix:	Finished Product	**Received:**	10/20/2021 @ 10:27 AM
Test:	Microbial Contaminants	**Started:**	10/20/2021
Method:	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	**Reported:**	10/24/2021

MICROBIAL CONTAMINANTS

Contaminant	Method	LOD	LLOQ	ULOQ	Result
Total Aerobic Count*	TM-26 Culture Plating	10^2 CFU/g	10^3 CFU/g	1.5x10^5 CFU/g	**None Detected**
Total Coliforms*	TM-27 Culture Plating	10^1 CFU/g	10^2 CFU/g	1.5x10^4 CFU/g	**None Detected**
Total Yeast and Molds*	TM-24 Culture Plating	10^1 CFU/g	10^2 CFU/g	1.5x10^4 CFU/g	**None Detected**
E. coli	TM-28 Culture Plating	1 CFU/g	NA	NA	**Absent**
***E. coli* (STEC)**	TM-25 PCR	1 CFU/g	NA	NA	**Absent**
Salmonella	TM-25 PCR	1 CFU/g	NA	NA	**Absent**

** 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

NOTES:
Free from visual mold, mildew, and foreign matter

DEFINITIONS:
CFU/g = Colony Forming Units per Gram.
LOD = Limit of Detection
ULOQ = Upper Limit of Quantitation
LLOQ = Lower Limit of Quantitation

FINAL APPROVAL

Jackson Osaghae-Nosa
10/23/2021
2:34:00 PM
PREPARED BY / DATE

Courtney Richards
10/24/2021
12:02:00 AM
APPROVED BY / DATE

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