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CERTIFICATE OF ANALYSIS

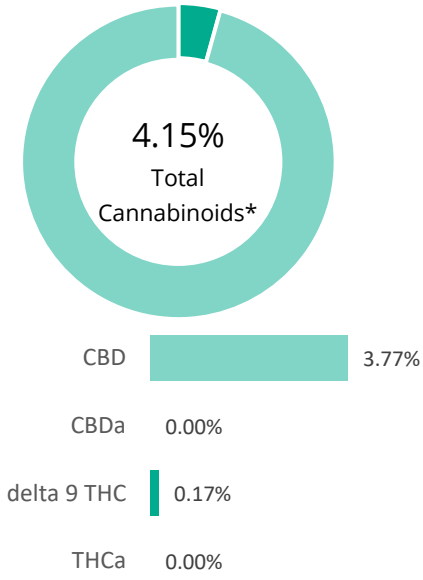
prepared for: Beak and Skiff Research

4473 Cherry Valley Tpke
Lafayette, NY 13084

O_CBD_BAL_LRE

Batch ID:	B0021	**Test ID:**	T000167892
Type:	Concentrate	**Submitted:**	10/08/2021 @ 10:27 AM
Test:	Potency	**Started:**	10/11/2021
Method:	TM14 (HPLC-DAD)	**Reported:**	10/12/2021

CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.05	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.05	0.17	1.7
Cannabidiolic acid (CBDA)	0.05	ND	ND
Cannabidiol (CBD)	0.05	3.77	37.7
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.06	ND	ND
Cannabinolic Acid (CBNA)	0.03	ND	ND
Cannabinol (CBN)	0.01	ND	ND
Cannabigerolic acid (CBGA)	0.05	ND	ND
Cannabigerol (CBG)	0.01	0.14	1.4
Tetrahydrocannabivarinic Acid (THCVA)	0.04	ND	ND
Tetrahydrocannabivarin (THCV)	0.01	ND	ND
Cannabidivarinic Acid (CBDVA)	0.02	ND	ND
Cannabidivarin (CBDV)	0.01	ND	ND
Cannabichromenic Acid (CBCA)	0.02	ND	ND
Cannabichromene (CBC)	0.02	0.07	0.7
Total Cannabinoids		**4.15**	**41.5**
Total Potential THC**		0.17	1.7
Total Potential CBD**		3.77	37.7

% = % (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

Karen Winternheime
12-Oct-2021
1:52 PM
PREPARED BY / DATE

Sam Smith
12-Oct-2021
1:58 PM
APPROVED BY / DATE

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_BAL_LRE

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0021	**Residual Solvents**	**10/18/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
N/A	T000167896	10/12/21	N/A

Status:	Methods:	Received:	Sampler ID:
N/A	TM04 (GC-MS): Residual Solvents	10/08/2021 @ 10:27 AM	N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	85 - 1696	*ND
Butanes (Isobutane, n-Butane)	169 - 3389	*ND
Methanol	66 - 1320	*ND
Pentane	90 - 1799	*ND
Ethanol	102 - 2042	*ND
Acetone	104 - 2078	*ND
Isopropyl Alcohol	115 - 2298	*ND
Hexane	6 - 117	*ND
Ethyl Acetate	104 - 2087	*ND
Benzene	0 - 4	*ND
Heptanes	97 - 1935	*ND
Toluene	19 - 383	*ND
Xylenes (m,p,o-Xylenes)	137 - 2737	*ND

Notes

Hannah Wright
18-Oct-21
2:15 PM

PREPARED BY / DATE

Sam Smith
18-Oct-21
2:19 PM

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_BAL_LRE

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0021	**Pesticides**	**10/13/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Concentrate	T000167893	10/12/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM17(LC-QQQ LC MS/MS):	10/08/2021 @ 10:27 AM	N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	40	ND	**Fenoxycarb**	44	ND	**Paclobutrazol**	45	ND
Acetamiprid	42	ND	**Fipronil**	35	ND	**Permethrin**	277	ND
Avermectin	360	ND	**Flonicamid**	45	ND	**Phosmet**	45	ND
Azoxystrobin	46	ND	**Fludioxonil**	305	ND	**Prophos**	307	ND
Bifenazate	44	ND	**Hexythiazox**	44	ND	**Propoxur**	44	ND
Boscalid	44	ND	**Imazalil**	282	ND	**Pyridaben**	296	ND
Carbaryl	41	ND	**Imidacloprid**	44	ND	**Spinosad A**	36	ND
Carbofuran	44	ND	**Kresoxim-methyl**	150	ND	**Spinosad D**	55	ND
Chlorantraniliprole	49	ND	**Malathion**	297	ND	**Spiromesifen**	303	ND
Chlorpyrifos	500	ND	**Metalaxyl**	43	ND	**Spirotetramat**	313	ND
Clofentezine	289	ND	**Methiocarb**	46	ND	**Spiroxamine 1**	19	ND
Diazinon	310	ND	**Methomyl**	40	ND	**Spiroxamine 2**	25	ND
Dichlorvos	299	ND	**MGK 264 1**	170	ND	**Tebuconazole**	302	ND
Dimethoate	44	ND	**MGK 264 2**	119	ND	**Thiacloprid**	44	ND
E-Fenpyroximate	297	ND	**Myclobutanil**	44	ND	**Thiamethoxam**	42	ND
Etofenprox	44	ND	**Naled**	42	ND	**Trifloxystrobin**	45	ND
Etoxazole	312	ND	**Oxamyl**	1500	ND			

Daniel Weidensaul
10/13/2021
1:51:00 PM
PREPARED BY / DATE

Sam Smith
10/13/2021
1:56:00 PM
APPROVED BY / DATE

Definitions

LOQ = Limit of Quantification
ppb = Parts per Billion

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CERTIFICATE OF ANALYSIS

Prepared for:

O_CBD_BAL_LRE

Beak and Skiff Research

Batch ID or Lot Number:	Test:	Reported:	Location:
B0021	**Metals**	**10/14/21**	4473 Cherry Valley Tpke Lafayette, NY 13084

Matrix:	Test ID:	Started:	USDA License:
Unit	T000167895	10/14/21	N/A

Status:	Method:	Received:	Sampler ID:
N/A	TM19 (ICP-MS): Heavy Metals	10/08/2021 @ 10:27 AM	N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.043 - 4.30	ND
Cadmium	0.042 - 4.22	ND
Mercury	0.041 - 4.09	ND
Lead	0.044 - 4.44	ND

Notes

Daniel Weidensaul
14-Oct-21
6:20 PM

PREPARED BY / DATE

Ryan Weems
14-Oct-21
6:22 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_BAL_LRE

Batch ID:	B0021	**Test ID:**	T000167894
Matrix:	Finished Product	**Received:**	10/08/2021 @ 10:27 AM
Test:	Microbial Contaminants	**Started:**	10/8/2021
Method:	TM25 (qPCR) TM24, TM26, TM27, TM28 (Culture Plating)	**Reported:**	10/13/2021

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
10/13/2021
10:39:00 AM
PREPARED BY / DATE

Brett Hudson
10/13/2021
10:45:00 AM
APPROVED BY / DATE

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