

Prepared for:

JB Cattle 879
RAD EXTRACTS


Batch ID or Lot Number: 2105	Test: Metals	Reported: 7/13/22	Location: 860 Commercial Lane Palmer Lake, CO 80133
Matrix: Concentrate	Test ID: T000186518	Started: 7/12/22	USDA License: N/A
Status: N/A	Method: TM19 (ICP-MS): Heavy Metals	Received: 07/10/2022 @ 08:48 AM	Sampler ID: N/A

HEAVY METALS DETERMINATION

Compound	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.044 - 4.43	ND	
Cadmium	0.044 - 4.42	ND	
Mercury	0.044 - 4.40	ND	
Lead	0.050 - 5.01	ND	


 Daniel Weidensaul
 13-Jul-22
 12:51 PM

PREPARED BY / DATE


 Sam Smith
 13-Jul-22
 1:08 PM

APPROVED BY / DATE

Definitions

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

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.



Certificate #4329.02

Prepared for:

JB Cattle 879
RAD EXTRACTS

Batch ID or Lot Number: 2105	Test: Mycotoxins	Reported: 7/13/22	Location: 860 Commercial Lane Palmer Lake, CO 80133
Matrix: Concentrate	Test ID: T000186520	Started: 7/12/22	USDA License: N/A
Status: N/A	Method: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins	Received: 07/10/2022 @ 08:48 AM	Sampler ID: N/A

MYCOTOXIN DETERMINATION

Compound	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.5 - 127.4	ND	N/A
Aflatoxin B1	1 - 32.6	ND	
Aflatoxin B2	1.1 - 32.5	ND	
Aflatoxin G1	1 - 32.5	ND	
Aflatoxin G2	1.1 - 31.7	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	



 Sam Smith
 13-Jul-22
 3:32 PM

PREPARED BY / DATE



 Ryan Weems
 13-Jul-22
 3:35 PM

APPROVED BY / DATE

Definitions

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Certificate #4329.02

Prepared for:

RAD EXTRACTS

860 Commercial Lane
Palmer Lake, CO USA 80133

1500mg/oz FS Tincture

Batch ID or Lot Number: 545640	Test: Potency	Reported: 05Jun2023	USDA License: N/A
Matrix: Unit	Test ID: T000245403	Started: 01Jun2023	Sampler ID: N/A
	Method(s): TM14 (HPLC-DAD)	Received: 31May2023	Status: N/A

Cannabinoids

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	1.671	5.194	72.980	2.60	# of Servings = 1, Sample Weight=28g
Cannabichromenic Acid (CBCA)	1.528	4.751	ND	ND	
Cannabidiol (CBD)	4.138	13.029	1554.950	55.50	
Cannabidiolic Acid (CBDA)	4.244	13.363	ND	ND	
Cannabidivarin (CBDV)	0.979	3.081	3.560	0.10	
Cannabidivarinic Acid (CBDVA)	1.770	5.574	ND	ND	
Cannabigerol (CBG)	0.948	2.949	59.890	2.10	
Cannabigerolic Acid (CBGA)	3.965	12.328	ND	ND	
Cannabinol (CBN)	1.237	3.847	4.950	0.20	
Cannabinolic Acid (CBNA)	2.705	8.411	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	4.724	14.688	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	4.290	13.339	61.790	2.20	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	3.801	11.818	ND	ND	
Tetrahydrocannabivarin (THCV)	0.863	2.682	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	3.353	10.424	ND	ND	
Total Cannabinoids			1758.120	62.70	
Total Potential THC			61.790	2.20	
Total Potential CBD			1554.950	55.50	

Final Approval


Sam Smith
05Jun2023
11:54:00 AM MDT

PREPARED BY / DATE


Karen Winternheimer
05Jun2023
11:57:00 AM MDT

APPROVED BY / DATE



<https://results.botanacor.com/api/v1/coas/uuid/bf136738-d802-422e-84b5-8c524163a6d4>

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.



Cert #4329.02

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Prepared for:

JB Cattle 879
RAD EXTRACTS


Batch ID or Lot Number: 2105	Test: Residual Solvents	Reported: 7/12/22	Location: 860 Commercial Lane Palmer Lake, CO 80133
Matrix: N/A	Test ID: T000186519	Started: 7/11/22	USDA License: N/A
Status: N/A	Methods: TM04 (GC-MS): Residual Solvents	Received: 07/10/2022 @ 08:48 AM	Sampler ID: N/A

RESIDUAL SOLVENTS DETERMINATION

Solvent	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	112 - 2250	*ND	
Butanes (Isobutane, n-Butane)	214 - 4286	*ND	
Methanol	70 - 1398	*ND	
Pentane	113 - 2251	*ND	
Ethanol	108 - 2164	500	
Acetone	116 - 2316	*ND	
Isopropyl Alcohol	117 - 2338	*ND	
Hexane	7 - 143	*ND	
Ethyl Acetate	115 - 2298	208	
Benzene	0.2 - 4.5	*ND	
Heptanes	113 - 2259	*ND	
Toluene	21 - 417	*ND	
Xylenes (m,p,o-Xylenes)	151 - 3024	*ND	


 Ryan Weems
 12-Jul-22
 3:08 PM

PREPARED BY / DATE


 Sam Smith
 12-Jul-22
 3:11 PM

APPROVED BY / DATE

Definitions

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

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.



Certificate #4329.02


Prepared for:

JB Cattle 879
RAD EXTRACTS

Batch ID or Lot Number: 2105	Test: Pesticides	Reported: 7/12/22	Location: 860 Commercial Lane Palmer Lake, CO 80133
Matrix: Concentrate	Test ID: t000186517	Started: 7/12/22	USDA License: N/A
Status: N/A	Method: TM17(LC-QQQ LC MS/MS):	Received: 07/10/2022 @ 08:48 AM	Sampler ID: N/A

PESTICIDE DETERMINATION

Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)	Compound	LOQ (ppb)	Result (ppb)
Acephate	43	ND	Fenoxycarb	46	ND	Paclobutrazol	39	ND
Acetamiprid	37	ND	Fipronil	53	ND	Permethrin	240	ND
Avermectin	390	ND	Flonicamid	45	ND	Phosmet	48	ND
Azoxystrobin	66	ND	Fludioxonil	339	ND	Prophos	301	ND
Bifenazate	49	ND	Hexythiazox	49	ND	Propoxur	39	ND
Boscalid	66	ND	Imazalil	262	ND	Pyridaben	299	ND
Carbaryl	37	ND	Imidacloprid	47	ND	Spinosad A	32	ND
Carbofuran	43	ND	Kresoxim-methyl	150	ND	Spinosad D	49	ND
Chlorantraniliprole	57	ND	Malathion	296	ND	Spiromesifen	356	ND
Chlorpyrifos	500	ND	Metalaxyl	47	ND	Spirotetramat	370	ND
Clofentezine	272	ND	Methiocarb	46	ND	Spiroxamine 1	19	ND
Diazinon	306	ND	Methomyl	37	ND	Spiroxamine 2	26	ND
Dichlorvos	286	ND	MGK 264 1	172	ND	Tebuconazole	300	ND
Dimethoate	41	ND	MGK 264 2	117	ND	Thiacloprid	40	ND
E-Fenpyroximate	394	ND	Myclobutanil	41	ND	Thiamethoxam	46	ND
Etofenprox	44	ND	Naled	48	ND	Trifloxystrobin	49	ND
Etoxazole	326	ND	Oxamyl	1500	ND			


 Sam Smith
 7/12/2022
 3:48:00 PM


 Daniel Weidensaul
 7/12/2022
 3:57:00 PM

PREPARED BY / DATE

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Definitions

LOQ = Limit of Quantification
 ppb = Parts per Billion

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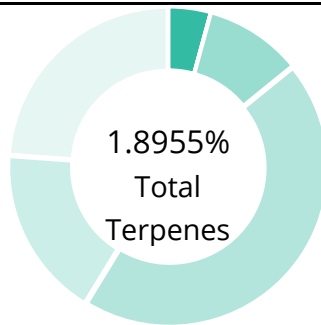


Certificate #4329.02

JB Cattle 879

Batch ID:	2105	Test ID:	T000186516
Type:	Concentrate	Submitted:	07/10/2022 @ 08:48 AM
Test:	Terpenes	Started:	7/12/2022
Method:	TM22 (GC-MS)	Reported:	7/14/2022

TERPENE PROFILE



Compound	%(w/w)	mg/g
(-)-alpha-Bisabolol	0.4325	4.325
Camphene	0.0000	0.000
delta-3-Carene	0.0000	0.000
beta-Caryophyllene	0.8075	8.075
(-)-Caryophyllene Oxide	0.0000	0.000
p-Cymene	0.0000	0.000
Eucalyptol	0.0000	0.000
Geraniol	0.0000	0.000
alpha-Humulene	0.3156	3.156
(-)-Isopulegol	0.0000	0.000
d-Limonene	0.0000	0.000
Linalool	0.1794	1.794
beta-Myrcene	0.0772	0.772
cis-Nerolidol	0.0000	0.000
trans-Nerolidol	0.0597	0.597
Ocimene	0.0000	0.000
beta-Ocimene	0.0236	0.236
alpha-Pinene	0.0000	0.000
(-)-beta-Pinene	0.0000	0.000
alpha-Terpinene	0.0000	0.000
gamma-Terpinene	0.0000	0.000
Terpinolene	0.0000	0.000
Total	1.8955	18.955

PREDOMINANT TERPENES

alpha-Pinene	0.0000
(-)-beta-Pinene	0.0000
beta-Myrcene	0.0772
delta-3-Carene	0.0000
alpha-Terpinene	0.0000
d-Limonene	0.0000
Linalool	0.1794
beta-Caryophyllene	0.8075
alpha-Humulene	0.3156
(-)-alpha-Bisabolol	0.4325

NOTES:

N/A

FINAL APPROVAL

 Rvan Weems 14-Jul-2022 8:44 AM	 Jacob Miller 14-Jul-2022 9:10 AM
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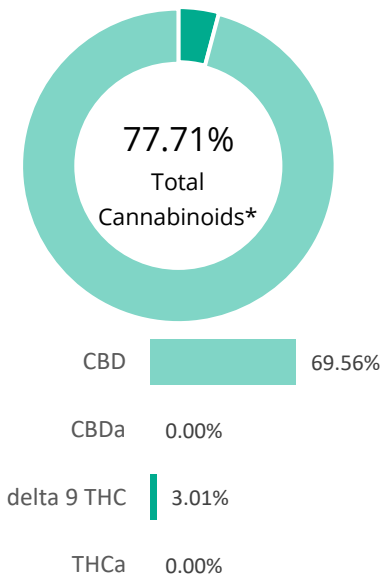


Certificate #4329.02

JB Cattle 879

Batch ID: 2105	Test ID: T000186515
Type: Concentrate	Submitted: 07/10/2022 @ 08:48 AM
Test: Potency	Started: 7/11/2022
Method: TM14 (HPLC-DAD)	Reported: 7/12/2022

CANNABINOID PROFILE



Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.08	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.09	3.01	30.1
Cannabidiolic acid (CBDA)	0.10	ND	ND
Cannabidiol (CBD)	0.10	69.56	695.6
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.10	ND	ND
Cannabinolic Acid (CBNA)	0.06	ND	ND
Cannabinol (CBN)	0.03	ND	ND
Cannabigerolic acid (CBGA)	0.08	ND	ND
Cannabigerol (CBG)	0.02	1.95	19.5
Tetrahydrocannabivarinic Acid (THCVA)	0.07	ND	ND
Tetrahydrocannabivarin (THCV)	0.02	ND	ND
Cannabidivarinic Acid (CBDVA)	0.04	ND	ND
Cannabidivarin (CBDV)	0.02	0.23	2.3
Cannabichromenic Acid (CBCA)	0.03	ND	ND
Cannabichromene (CBC)	0.04	2.96	29.6
Total Cannabinoids		77.71	777.1
Total Potential THC**		3.01	30.1
Total Potential CBD**		69.56	695.6

NOTES:

N/A

% = % (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.

$$\text{Total THC} = \text{THC} + (\text{THCa} * 0.877)$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} * 0.877)$$

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

FINAL APPROVAL

 Hannah Wright 12-Jul-2022 12:24 PM	 Rvan Weems 12-Jul-2022 12:28 PM
PREPARED BY / DATE	APPROVED BY / DATE

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Certificate #4329.02

JB Cattle 879

Batch ID:	2105	Test ID:	T000186514
Matrix:	Concentrate	Received:	07/10/2022 @ 08:48 AM
Test:	Microbial Contaminants	Started:	7/10/2022
Methods:	TM25 (PCR) TM24, TM26, TM27 (Culture Plating)	Reported:	7/13/2022

MICROBIAL CONTAMINANTS

Contaminant	Method	LOD	Quantitation Range	Result
Total Yeast and Mold*	TM-24 Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴ CFU/g	None Detected
Total Aerobic Bacteria*	TM-26 Culture Plating	10 ² CFU/g	1.0x10 ³ - 1.5x10 ⁵ CFU/g	None Detected
Total Coliforms*	TM-27 Culture Plating	10 ¹ CFU/g	1.0x10 ² - 1.5x10 ⁴ CFU/g	None Detected
STEC	TM-25 PCR	10 ⁰ CFU/g	N/A	Absent
Salmonella	TM-25 PCR	10 ⁰ CFU/g	N/A	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: 10² = 100 CFU
10³ = 1,000 CFU
10⁴ = 10,000 CFU
10⁵ = 100,000 CFU

NOTES:

Free from visual mold, mildew, and foreign matter


DEFINITIONS:

CFU/g = Colony Forming Units per gram | LOD = Limit of Detection | STEC = Shiga toxin-producing E. coli
LLOQ = Lower Limit of Quantitation | ULOQ = Upper Limit of Quantitation

FINAL APPROVAL


Brianne Maillot
7/13/2022
1:37:00 PM

PREPARED BY / DATE


Eden Thompson-Wright
7/13/2022
4:29:00 PM

APPROVED BY / DATE

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