

Prepared for:
BLUEBIRD BOTANICALS
PO BOX 271724
Louisville, CO USA 80027

SG


Batch ID or Lot Number: 321	Test, Test ID and Methods: Various	Matrix: Unit	Page 1 of 6
Reported: 05Mar2023	Started: 03Mar2023	Received: 02Mar2023	

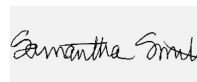
Cannabinoids - Colorado Compliance

Test ID: T000237238
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.051	0.170	0.785	1.23	# of Servings = 1 Sample Weight=0.637g
Cannabichromenic Acid (CBCA)	0.047	0.156	ND	ND	
Cannabidiol (CBD)	0.154	0.455	17.717	27.81	
Cannabidiolic Acid (CBDA)	0.158	0.467	ND	ND	
Cannabidivarin (CBDV)	0.037	0.108	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.066	0.195	ND	ND	
Cannabigerol (CBG)	0.029	0.097	0.322	0.51	
Cannabigerolic Acid (CBGA)	0.121	0.404	ND	ND	
Cannabinol (CBN)	0.038	0.126	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.083	0.276	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.144	0.482	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.131	0.438	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.116	0.388	ND	ND	
Tetrahydrocannabivarin (THCV)	0.026	0.088	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.102	0.342	ND	ND	
Total Cannabinoids			18.824	29.55	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			17.717	27.81	

Final Approval


Karen Winternheimer
05Mar2023
01:28:00 PM MST
PREPARED BY / DATE


Sam Smith
05Mar2023
01:35:00 PM MST
APPROVED BY / DATE

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Residual Solvents - Colorado Compliance

Test ID: T000237243
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	98 - 1952	ND	
Butanes (Isobutane, n-Butane)	200 - 4004	ND	
Methanol	59 - 1183	ND	
Pentane	98 - 1959	ND	
Ethanol	96 - 1922	ND	
Acetone	97 - 1947	ND	
Isopropyl Alcohol	100 - 1990	ND	
Hexane	6 - 118	ND	
Ethyl Acetate	100 - 1995	ND	
Benzene	0.2 - 3.9	ND	
Heptanes	98 - 1965	ND	
Toluene	17 - 348	ND	
Xylenes (m,p,o-Xylenes)	128 - 2553	ND	

Final Approval


Karen Winternheimer
05Mar2023
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Sam Smith
05Mar2023
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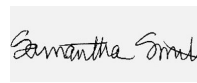
Cannabinoids - Colorado Compliance

Test ID: T000237239
Methods: TM14 (HPLC-DAD): Potency – Standard
Cannabinoid Analysis

	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.051	0.170	0.779	1.28	# of Servings = 1 Sample Weight=0.61g
Cannabichromenic Acid (CBCA)	0.047	0.156	ND	ND	
Cannabidiol (CBD)	0.154	0.455	17.617	28.87	
Cannabidiolic Acid (CBDA)	0.158	0.467	ND	ND	
Cannabidivarin (CBDV)	0.037	0.108	ND	ND	
Cannabidivarinic Acid (CBDVA)	0.066	0.195	ND	ND	
Cannabigerol (CBG)	0.029	0.097	0.318	0.52	
Cannabigerolic Acid (CBGA)	0.121	0.404	ND	ND	
Cannabinol (CBN)	0.038	0.126	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.083	0.276	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.144	0.482	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.131	0.438	<LOQ	<LOQ	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.116	0.388	ND	ND	
Tetrahydrocannabivarin (THCV)	0.026	0.088	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.102	0.342	ND	ND	
Total Cannabinoids			18.714	30.67	
Total Potential THC			<LOQ	<LOQ	
Total Potential CBD			17.617	28.87	

Final Approval


Karen Winternheimer
05Mar2023
01:28:00 PM MST
PREPARED BY / DATE



Sam Smith
05Mar2023
01:35:00 PM MST
APPROVED BY / DATE

Heavy Metals - Colorado Compliance

Test ID: T000237242
Methods: TM19 (ICP-MS): Heavy

Metals	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.04 - 3.91	ND	
Cadmium	0.04 - 4.16	ND	
Mercury	0.04 - 4.28	ND	
Lead	0.04 - 4.27	ND	

Final Approval


Sam Smith
06Mar2023
01:15:00 PM MST
PREPARED BY / DATE


Karen Winternheimer
06Mar2023
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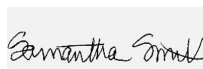
Batch ID or Lot Number: 321	Test, Test ID and Methods: Various	Matrix: Unit	Page 4 of 6
Reported: 05Mar2023	Started: 03Mar2023	Received: 02Mar2023	


Pesticides

Test ID: T000237240
Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	274 - 2735	ND		Malathion	291 - 2753	ND
Acephate	42 - 2843	ND		Metalaxyl	42 - 2734	ND
Acetamiprid	43 - 2741	ND		Methiocarb	42 - 2774	ND
Azoxystrobin	46 - 2739	ND		Methomyl	39 - 2755	ND
Bifenazate	40 - 2717	ND		MGK 264 1	165 - 1610	ND
Boscalid	41 - 2786	ND		MGK 264 2	114 - 1142	ND
Carbaryl	40 - 2732	ND		Myclobutanil	34 - 2832	ND
Carbofuran	43 - 2708	ND		Naled	48 - 2780	ND
Chlorantraniliprole	45 - 2756	ND		Oxamyl	40 - 2760	ND
Chlorpyrifos	47 - 2688	ND		Paclobutrazol	46 - 2691	ND
Clofentezine	284 - 2721	ND		Permethrin	284 - 2754	ND
Diazinon	271 - 2740	ND		Phosmet	38 - 2721	ND
Dichlorvos	276 - 2772	ND		Prophos	291 - 2792	ND
Dimethoate	41 - 2741	ND		Propoxur	42 - 2716	ND
E-Fenpyroximate	295 - 2714	ND		Pyridaben	295 - 2740	ND
Etofenprox	38 - 2762	ND		Spinosad A	34 - 2233	ND
Etoxazole	292 - 2691	ND		Spinosad D	47 - 490	ND
Fenoxycarb	47 - 2745	ND		Spiromesifen	267 - 2738	ND
Fipronil	56 - 2744	ND		Spirotetramat	285 - 2753	ND
Fonicamid	45 - 2756	ND		Spiroxamine 1	18 - 1195	ND
Fludioxonil	320 - 2783	ND		Spiroxamine 2	24 - 1567	ND
Hexythiazox	47 - 2702	ND		Tebuconazole	289 - 2722	ND
Imazalil	271 - 2769	ND		Thiacloprid	41 - 2735	ND
Imidacloprid	44 - 2726	ND		Thiamethoxam	40 - 2743	ND
Kresoxim-methyl	42 - 2760	ND		Trifloxystrobin	44 - 2743	ND

Final Approval


Sam Smith
08Mar2023
08:24:00 AM MST
PREPARED BY / DATE


Karen Winternheimer
08Mar2023
08:29:00 AM MST
APPROVED BY / DATE

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Mycotoxins - Colorado Compliance

Test ID: T000237244
Methods: TM18 (UHPLC-QQQ)
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	2.30 - 134.80	ND	N/A
Aflatoxin B1	0.97 - 33.49	ND	
Aflatoxin B2	0.94 - 33.17	ND	
Aflatoxin G1	0.94 - 33.85	ND	
Aflatoxin G2	2.17 - 33.68	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval


Samantha Simola
PREPARED BY / DATE

Sam Smith
09Mar2023
07:45:00 AM MST


K. Winternheimer
APPROVED BY / DATE


Karen Winternheimer
09Mar2023
07:48:00 AM MST

Microbial Contaminants - Colorado Compliance

Test ID: T000237241
Methods: TM25 (qPCR) TM24, TM26,
TM27 (Culture Plating): Microbial
(Colorado Panel)

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

Final Approval


Brett Hudson
PREPARED BY / DATE

Brett Hudson
09Mar2023
03:48:00 PM MST


Eden Thompson-Wright
APPROVED BY / DATE

Eden Thompson-Wright
09Mar2023
04:15:00 PM MST

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<https://results.botanacor.com/api/v1/coas/uuid/074a5bc4-f361-4a7e-a789-03c889a2cad9>

Definitions
LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (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)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC 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)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. 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.

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. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



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