SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

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

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	Page 1 of 6
3310492076	Various	Solution	
Reported:	**Started:**	**Received:**	
03May2023	02May2023	01May2023	

Cannabinoids - Colorado Compliance

Test ID: T000241792
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	**LOD** (mg/mL)	**LOQ** (mg/mL)	**Result** (mg/mL)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.068	0.193	12.351	13.07	Density = 0.945g/mL
Cannabichromenic Acid (CBCA)	0.062	0.177	ND	ND	
Cannabidiol (CBD)	0.199	0.513	21.785	23.05	
Cannabidiolic Acid (CBDA)	0.204	0.526	ND	ND	
Cannabidivarin (CBDV)	0.047	0.121	<LOQ	<LOQ	
Cannabidivarinic Acid (CBDVA)	0.085	0.219	ND	ND	
Cannabigerol (CBG)	0.039	0.110	0.501	0.53	
Cannabigerolic Acid (CBGA)	0.161	0.458	ND	ND	
Cannabinol (CBN)	0.050	0.143	ND	ND	
Cannabinolic Acid (CBNA)	0.110	0.313	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.192	0.546	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.175	0.496	0.703	0.74	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.155	0.439	ND	ND	
Tetrahydrocannabivarin (THCV)	0.035	0.100	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.137	0.387	ND	ND	
Total Cannabinoids			**35.340**	**37.39**	
Total Potential THC			0.703	0.74	
Total Potential CBD			21.785	23.05	

Final Approval

Karen Winternheimer
03May2023
12:19:00 PM MDT
PREPARED BY / DATE

Sam Smith
03May2023
12:22:00 PM MDT
APPROVED BY / DATE

SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

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

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	
3310492076	Various	Solution	
Reported:	Started:	Received:	
03May2023	02May2023	01May2023	

Cannabinoids - Colorado Compliance

Test ID: T000241791
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	**LOD** (mg/mL)	**LOQ** (mg/mL)	**Result** (mg/mL)	**Result** (mg/g)	**Notes**
Cannabichromene (CBC)	0.069	0.195	12.273	12.99	Density = 0.945g/mL
Cannabichromenic Acid (CBCA)	0.063	0.179	ND	ND	
Cannabidiol (CBD)	0.201	0.519	21.625	22.88	
Cannabidiolic Acid (CBDA)	0.206	0.532	ND	ND	
Cannabidivarin (CBDV)	0.048	0.123	<LOQ	<LOQ	
Cannabidivarinic Acid (CBDVA)	0.086	0.222	ND	ND	
Cannabigerol (CBG)	0.039	0.111	0.487	0.52	
Cannabigerolic Acid (CBGA)	0.163	0.464	ND	ND	
Cannabinol (CBN)	0.051	0.145	ND	ND	
Cannabinolic Acid (CBNA)	0.111	0.316	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.195	0.552	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.177	0.502	0.710	0.75	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.157	0.444	ND	ND	
Tetrahydrocannabivarin (THCV)	0.036	0.101	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.138	0.392	ND	ND	
Total Cannabinoids			**35.095**	**37.14**	
Total Potential THC			0.710	0.75	
Total Potential CBD			21.625	22.88	

Final Approval

Karen Winternheimer
03May2023
12:19:00 PM MDT
PREPARED BY / DATE

Sam Smith
03May2023
12:22:00 PM MDT
APPROVED BY / DATE

SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

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

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	
3310492076	Various	Solution	
Reported:	Started:	Received:	
03May2023	02May2023	01May2023	

Residual Solvents - Colorado Compliance

Test ID: T000241796
Methods: TM04 (GC-MS): Residual Solvents

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Propane	94 - 1890	ND	
Butanes (Isobutane, n-Butane)	197 - 3941	ND	
Methanol	59 - 1188	ND	
Pentane	101 - 2024	ND	
Ethanol	102 - 2046	ND	
Acetone	102 - 2046	ND	
Isopropyl Alcohol	103 - 2056	ND	
Hexane	6 - 121	ND	
Ethyl Acetate	101 - 2024	ND	
Benzene	0.2 - 3.6	ND	
Heptanes	103 - 2055	ND	
Toluene	18 - 363	ND	
Xylenes (m,p,o-Xylenes)	129 - 2590	ND	

Final Approval

Karen Winternheimer
04May2023
10:29:00 AM MDT
PREPARED BY / DATE

Sam Smith
04May2023
10:31:00 AM MDT
APPROVED BY / DATE

SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

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

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	
3310492076	Various	Solution	
Reported:	Started:	Received:	
03May2023	02May2023	01May2023	

Mycotoxins - Colorado Compliance

Test ID: T000241797
Methods: TM18 (UHPLC-QQQ LCMS/MS): Mycotoxins

	Dynamic Range (ppb)	**Result** (ppb)	**Notes**
Ochratoxin A	2.58 - 132.51	ND	N/A
Aflatoxin B1	1.04 - 31.81	ND	
Aflatoxin B2	0.98 - 31.74	ND	
Aflatoxin G1	1.04 - 31.84	ND	
Aflatoxin G2	0.98 - 31.59	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

Final Approval

Sam Smith
04May2023
10:53:00 AM MDT
PREPARED BY / DATE

Karen Winternheimer
04May2023
11:23:00 AM MDT
APPROVED BY / DATE

Microbial Contaminants - Colorado Compliance

Test ID: T000241794
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

Eden Thompson-Wright
05May2023
02:00:00 PM MDT
PREPARED BY / DATE

Brett Hudson
05May2023
04:46:00 PM MDT
APPROVED BY / DATE

SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

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

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	
3310492076	Various	Solution	
Reported:	Started:	Received:	
03May2023	02May2023	01May2023	

Pesticides

Test ID: T000241793
Methods: TM17

(LC-QQ LC MS/MS)	**Dynamic Range** (ppb)	**Result** (ppb)		**Dynamic Range** (ppb)	**Result** (ppb)
Abamectin	357 - 3481	ND	Malathion	300 - 2788	ND
Acephate	68 - 2750	ND	Metalaxyl	44 - 2763	ND
Acetamiprid	46 - 2854	ND	Methiocarb	50 - 2812	ND
Azoxystrobin	44 - 2716	ND	Methomyl	49 - 2924	ND
Bifenazate	37 - 2690	ND	MGK 264 1	189 - 1720	ND
Boscalid	47 - 2701	ND	MGK 264 2	122 - 1074	ND
Carbaryl	39 - 2777	ND	Myclobutanil	49 - 2745	ND
Carbofuran	44 - 2766	ND	Naled	47 - 2797	ND
Chlorantraniliprole	48 - 2676	ND	Oxamyl	50 - 2938	ND
Chlorpyrifos	38 - 2918	ND	Paclobutrazol	38 - 2635	ND
Clofentezine	297 - 2744	ND	Permethrin	279 - 2800	ND
Diazinon	282 - 2764	ND	Phosmet	42 - 2709	ND
Dichlorvos	369 - 2754	ND	Prophos	290 - 2836	ND
Dimethoate	51 - 2873	ND	Propoxur	43 - 2770	ND
E-Fenpyroximate	291 - 2742	ND	Pyridaben	286 - 2813	ND
Etofenprox	41 - 2846	ND	Spinosad A	32 - 2061	ND
Etoxazole	284 - 2909	ND	Spinosad D	64 - 700	ND
Fenoxycarb	2 - 2719	ND	Spiromesifen	316 - 2739	ND
Fipronil	56 - 2573	ND	Spirotetramat	285 - 2660	ND
Flonicamid	45 - 2849	ND	Spiroxamine 1	20 - 1229	ND
Fludioxonil	313 - 2758	ND	Spiroxamine 2	27 - 1592	ND
Hexythiazox	40 - 2748	ND	Tebuconazole	297 - 2618	ND
Imazalil	284 - 2789	ND	Thiacloprid	46 - 2805	ND
Imidacloprid	37 - 2793	ND	Thiamethoxam	42 - 2840	ND
Kresoxim-methyl	39 - 2799	ND	Trifloxystrobin	44 - 2739	ND

Final Approval

Karen Winternheimer
05May2023
12:31:00 PM MDT
PREPARED BY / DATE

Sam Smith
05May2023
12:33:00 PM MDT
APPROVED BY / DATE

SC Labs®
Formerly Botanacor Labs

CERTIFICATE OF ANALYSIS

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

CF-30

Batch ID or Lot Number:	Test, Test ID and Methods:	Matrix:	Page 6 of 6
3310492076	Various	Solution	
Reported:	**Started:**	**Received:**	
03May2023	02May2023	01May2023	

Heavy Metals - Colorado Compliance

Test ID: T000241795
Methods: TM19 (ICP-MS): Heavy Metals

	Dynamic Range (ppm)	**Result** (ppm)	**Notes**
Arsenic	0.05 - 4.82	ND	
Cadmium	0.05 - 4.65	ND	
Mercury	0.05 - 4.67	ND	
Lead	0.01 - 1.47	ND	

Final Approval

Sam Smith
05May2023
12:10:00 PM MDT
PREPARED BY / DATE

Karen Winternheimer
05May2023
12:14:00 PM MDT
APPROVED BY / DATE

https://results.botanacor.com/api/v1/coas/uuid/69b918e8-1ffc-4965-a808-9d994956b775

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: 10^2 = 100 CFU, 10^3 = 1,000 CFU, 10^4 = 10,000 CFU, 10^5 = 100,000 CFU.

Cert #4329.02
69b918e81ffc4965a8089d994956b775.1