

Certificate of Analysis

Produced: Dec 03, 2025

Sample: P&B National: Tincture: 30mg 30mL Natural (Tincture) • Client: Papa & Barkley CBD • Batch: Pass



Batch No.: 15325
Matrix: Tincture
Density: 0.964 g/ml
Sample ID: ICC-251202-43-001
Collected on: Dec 02, 2025
Received on: Dec 02, 2025
Sample Size:
Package Size: 28.10 g
Serving Size: 0.94 g

Batch Result: Pass

Potency	Tested	Mycotoxins	Pass
Solvents	Pass	Pesticides	Pass
Metals	Pass	Foreign	Pass
Microbial	Pass		

Cannabinoid Overview

Total THC:	0.565 mg/srv
Total CBD:	30.6 mg/srv
Total Cannabinoids:	34.1 mg/srv
Sum of Cannabinoids:	34.1 mg/srv

POT-INST-005: POT-INST-005: Expanded Potency • Dec 03, 2025

Analyte	Amt (mg/srv)	Amt (mg/pkg)	Amt (%)	Amt (mg/ml)	LOD/LOQ (mg/ml)	Pass/Fail	Analyte	Amt (mg/srv)	Amt (mg/pkg)	Amt (%)	Amt (mg/ml)	LOD/LOQ (mg/ml)	Pass/Fail
CBC	2.07	61.8	0.220	2.12	0.0229/0.0687	N/A	CBN	0.115	3.43	0.0122	0.118	0.00791/0.0347	N/A
CBCA			ND	ND	0.0322/0.0964	N/A	CBNA			ND	ND	0.0119/0.0354	N/A
CBCV			ND	ND	0.00993/0.0347	N/A	CBT	0.0866	2.59	0.00921	0.0888	0.00993/0.0347	N/A
CBD	30.6	913	3.25	31.3	0.00701/0.0347	N/A	Δ ⁸ -THC			ND	ND	0.00562/0.0347	N/A
CBDA			ND	ND	0.0168/0.0503	N/A	Δ ⁹ -THC	0.565	16.9	0.0601	0.579	0.00927/0.0347	N/A
CBDV	0.220	6.58	0.0234	0.226	0.00556/0.0347	N/A	THCA			ND	ND	0.0127/0.0383	N/A
CBDVA			ND	ND	0.0182/0.0547	N/A	THCV			ND	ND	0.00429/0.0347	N/A
CBG	0.420	12.6	0.0447	0.431	0.00791/0.0347	N/A	THCVA			ND	ND	0.0139/0.0416	N/A
CBGA			ND	ND	0.0123/0.0371	N/A	Total THC**	0.565	16.9	0.0601	0.579		N/A
CBL	0.0865	2.59	0.00920	0.0887	0.00547/0.0347	N/A	Total CBD**	30.6	913	3.25	31.3		N/A
CBLA			ND	ND	0.0760/0.228	N/A	Total Cannabinoids**	34.1	1020	3.63	35.0		N/A

** Total Cannabinoids = Neutral Cannabinoids + (Acidic Cannabinoids * 0.877)
** Total THC = Delta-10-THC + Delta-8-THC + (Delta-8-THCA x 0.877) + Delta-9-THC + THC-O-acetate + (THCA x 0.877)
** Total CBD = CBD + (CBDA x 0.877)
NR= Not Reported, ND= Not Detected, *Reported by Dry Mass*; *analytical instrumentation used Cannabinoids: UHPLC-DAD, Moisture: Mass by Drying, Water Activity: Water Activity Meter, Foreign: Microscope*
*Density tested at a temperature range between 19-24 °C, *Water Activity tested at a humidity range between 0-90% Relative Humidity. All OA samples are sampled by the client, All California State Compliant samples sampled using SAMPL-SOP-001.



RS-INST-003, RS-PREP-001: RS-INST-003, RS-PREP-001: Residual Solvents by GC-MS • Dec 03, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
1,2-Dichloroethane	1	ND	0.167/0.509	Pass	Hexane	290	ND	0.0661/0.281	Pass
Acetone	5000	ND	17.1/51.3	Pass	Isopropyl alcohol	5000	27.1	1.28/3.84	Pass
Acetonitrile	410	ND	0.120/0.359	Pass	Methanol	3000	ND	2.97/8.92	Pass
Benzene	1	ND	0.0210/0.0640	Pass	Methylene chloride	1	ND	0.127/0.730	Pass
Butane	5000	ND	0.972/4.85	Pass	Pentane	5000	ND	0.963/4.27	Pass
Chloroform	1	ND	0.0360/0.108	Pass	Propane	5000	ND	4.44/13.3	Pass
Ethanol	5000	ND	2.62/7.85	Pass	Toluene	890	ND	0.0881/0.865	Pass
Ethyl acetate	5000	ND	0.313/2.29	Pass	Trichloroethylene	1	ND	0.0180/0.145	Pass
Ethylene oxide	1	ND	0.153/0.579	Pass	o-Xylene		ND	0.101/0.858	N/A
Ethyl ether	5000	ND	1.18/3.55	Pass	p- and m-Xylene		ND	0.115/1.72	N/A
Heptane	5000	ND	0.688/2.86	Pass	Total xylenes	2170	ND		Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

HM-INST-003, HM-PREP-001: HM-INST-003, HM-PREP-001: Heavy Metals Testing by ICP-MS • Dec 03, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Arsenic	1.5	ND	0.00300/0.00900	Pass	Lead	0.5	< LOQ	0.00100/0.00400	Pass
Cadmium	0.5	ND	0.00100/0.00200	Pass	Mercury	3	ND	0.00500/0.0140	Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

MICRO-008, MICRO-INST-001, MICRO-PREP-001: MICRO-008, MICRO-INST-001, MICRO-PREP-001: PCR-Microbial (noninhalable) • Dec 03, 2025

Analyte	Limit	Amt	Pass/Fail	Analyte	Limit	Amt	Pass/Fail
Salmonella spp.	Any amt in 1 gram	ND	Pass	Shiga toxin-producing E. coli	Any amt in 1 gram	ND	Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

PESTMYCO-LC-INST-004, PESTMYCO-LC-PREP-001: PESTMYCO-LC-INST-004, PESTMYCO-LC-PREP-001: Mycotoxin Analysis by LC-MS/MS • Dec 03, 2025

Analyte	Limit (µg/kg)	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail	Analyte	Limit (µg/kg)	Amt (µg/kg)	LOD/LOQ (µg/kg)	Pass/Fail
Aflatoxin B1		ND	2.05/6.20	N/A	Aflatoxin G2		ND	1.02/5.00	N/A
Aflatoxin B2		ND	1.63/5.00	N/A	Aflatoxins	20	ND		Pass
Aflatoxin G1		ND	1.77/5.38	N/A	Ochratoxin A	20	ND	5.42/16.4	Pass

Compliance requirements for this test are taken from CA Cannabis/Hemp (Based on Submission Type) regulations.

PEST-GC-INST-003, PEST-GC-PREP-001: PEST-GC-INST-003, PEST-GC-PREP-001: Colorado Pesticides by GC-MS/MS • Dec 03, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
α-Endosulfan	0.353	ND	0.118/0.353	Pass	Iprodione	0.475	ND	0.158/0.475	Pass
β-Endosulfan	0.239	ND	0.0797/0.239	Pass	Kinoprene	0.221	ND	0.0738/0.221	Pass
Chlorfenapyr	0.0244	ND	0.00814/0.0244	Pass	Methyl parathion	0.0257	ND	0.00857/0.0257	Pass
Cyfluthrin	0.0384	ND	0.0128/0.0384	Pass	MGK-264	Any amt	ND		Pass
Cypermethrin	0.0525	ND	0.0175/0.0525	Pass	MGK-264 I		ND	0.00152/0.00457	N/A
Endosulfan sulfate	0.0257	ND	0.00856/0.0257	Pass	MGK-264 II		ND	0.00392/0.0118	N/A
Etridiazole	0.0441	ND	0.0147/0.0441	Pass	Quintozene	0.016	ND	0.00533/0.0160	Pass
Fenvalerate	0.402	ND	0.134/0.402	Pass					

Compliance requirements for this test are taken from CO Hemp regulations.



PESTMYCO-LC-INST-004, PESTMYCO-LC-PREP-001: PESTMYCO-LC-INST-004, PESTMYCO-LC-PREP-001: Colorado Pesticides by LC-MS/MS • Dec 03, 2025

Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail	Analyte	Limit (µg/g)	Amt (µg/g)	LOD/LOQ (µg/g)	Pass/Fail
Abamectin	0.1	ND	0.0500/0.100	Pass	Kresoxim-methyl	0.03	ND	0.0100/0.0300	Pass
Abamectin Ba		ND	0.0330/0.0990	N/A	Malathion	0.01	ND	0.00500/0.0100	Pass
Acephate	0.03	ND	0.0100/0.0300	Pass	Metalaxyl	0.01	ND	0.00500/0.0100	Pass
Acequinocyl	0.075	ND	0.0200/0.0750	Pass	Methiocarb	0.01	ND	0.00500/0.0100	Pass
Acetamiprid	0.03	ND	0.0100/0.0300	Pass	Methomyl	0.025	ND	0.0100/0.0250	Pass
Aldicarb	0.03	ND	0.0100/0.0300	Pass	Methoprene	0.05	ND	0.0250/0.0500	Pass
Allethrin	0.03	ND	0.0150/0.0300	Pass	Mevinphos	0.025	ND	0.0100/0.0250	Pass
Atrazine	0.005	ND	0.00500/0.00500	Pass	Myclobutanil	0.01	ND	0.00500/0.0100	Pass
Azadirachtin	0.05	ND	0.0300/0.0500	Pass	Naled	0.03	ND	0.0200/0.0300	Pass
Azoxystrobin	0.01	ND	0.00500/0.0100	Pass	Novaluron	0.02	ND	0.0100/0.0200	Pass
Benzovindiflupyr	0.005	ND	0.00500/0.00500	Pass	Oxamyl	0.03	ND	0.0200/0.0300	Pass
Bifenazate	0.01	ND	0.00500/0.0100	Pass	Paclobutrazol	0.01	ND	0.00500/0.0100	Pass
Bifenthrin	0.03	ND	0.00500/0.0300	Pass	Permethrin	0.03	ND	0.00178/0.0300	Pass
Boscalid	0.01	ND	0.00500/0.0100	Pass	Permethrin cis		ND	0.0200/0.0300	N/A
Buprofezin	0.03	ND	0.0150/0.0300	Pass	Permethrin trans		ND	0.0200/0.0300	N/A
Carbaryl	0.025	ND	0.0100/0.0250	Pass	Phenothrin	0.03	ND	0.0150/0.0300	Pass
Carbofuran	0.01	ND	0.00500/0.0100	Pass	Phosmet	0.03	ND	0.0200/0.0300	Pass
Chlorantraniliprole	0.03	ND	0.0100/0.0300	Pass	Piperonylbutoxide	0.03	ND	0.0100/0.0300	Pass
Chlorpyrifos	0.075	ND	0.0100/0.0750	Pass	Pirimicarb	0.01	ND	0.00500/0.0100	Pass
Clofentezine	0.01	ND	0.00500/0.0100	Pass	Prallethrin	0.075	ND	0.0300/0.0750	Pass
Clothianidin	0.01	ND	0.00500/0.0100	Pass	Propiconazole	0.03	ND	0.0100/0.0300	Pass
Coumaphos	0.01	ND	0.00500/0.0100	Pass	Propoxur	0.01	ND	0.00500/0.0100	Pass
Cyantraniliprole	0.01	ND	0.00500/0.0100	Pass	Pyraclostrobin	0.01	ND	0.00500/0.0100	Pass
Cyhalothrin lambda	0.05	ND	0.0300/0.0500	Pass	Pyrethrins	0.03	ND	0.00192/0.0300	Pass
Cyprodinil	0.01	ND	0.00500/0.0100	Pass	Pyrethrins Pyrethrin I		ND	0.0100/0.0450	N/A
Daminozide	0.075	ND	0.0500/0.0750	Pass	Pyrethrins Pyrethrin II		ND	0.0100/0.0300	N/A
Demethrin	0.05	ND	0.0250/0.0500	Pass	Pyridaben	0.02	ND	0.0100/0.0200	Pass
Diazinon	0.03	ND	0.0100/0.0300	Pass	Pyriproxyfen	0.01	ND	0.00500/0.0100	Pass
Dichlorvos	0.05	ND	0.0200/0.0500	Pass	Resmethrin	0.05	ND	0.0250/0.0500	Pass
Dimethoate	0.01	ND	0.00500/0.0100	Pass	Spinetoram	0.03	ND	0.00295/0.0300	Pass
Dimethomorph	0.03	ND	0.0100/0.0300	Pass	Spinetoram J		ND	0.00500/0.0100	N/A
Dinotefuran	0.05	ND	0.0250/0.0500	Pass	Spinetoram L		ND	0.00500/0.0100	N/A
Diuron	0.01	ND	0.00500/0.0100	Pass	Spinosad	0.03	ND	0.00275/0.0300	Pass
Dodemorph	0.02	ND	0.0100/0.0200	Pass	Spinosad A		ND	0.00500/0.0100	N/A
Ethoprophos	0.01	ND	0.00500/0.0100	Pass	Spinosad D		ND	0.00500/0.0100	N/A
Etofenprox	0.03	ND	0.0100/0.0300	Pass	Spirodiclofen	0.05	ND	0.0250/0.0500	Pass
Etoxazole	0.03	ND	0.0100/0.0300	Pass	Spiromesifen	0.03	ND	0.0100/0.0300	Pass
Fenhexamid	0.045	ND	0.0200/0.0450	Pass	Spirotetramat	0.01	< LOQ	0.00500/0.0100	Pass
Fenoxycarb	0.01	ND	0.00500/0.0100	Pass	Spiroxamine	0.03	ND	0.0200/0.0300	Pass
Fenpyroximate	0.03	ND	0.0100/0.0300	Pass	Tebuconazole	0.01	ND	0.00500/0.0100	Pass
Fensulfothion	0.01	ND	0.00500/0.0100	Pass	Tebufenozide	0.01	ND	0.00500/0.0100	Pass
Fenthion	0.0068	ND	0.00227/0.00680	Pass	Teflubenzuron	0.02	ND	0.0100/0.0200	Pass
Fipronil	0.01	ND	0.00500/0.0100	Pass	Tetrachlorvinphos	0.01	ND	0.00500/0.0100	Pass
Flonicamid	0.025	ND	0.0100/0.0250	Pass	Tetramethrin	0.05	ND	0.0250/0.0500	Pass
Fludioxonil	0.01	ND	0.00500/0.0100	Pass	Thiabendazole	0.01	ND	0.00500/0.0100	Pass
Fluopyram	0.005	ND	0.00500/0.00500	Pass	Thiacloprid	0.01	ND	0.00500/0.0100	Pass
Hexythiazox	0.03	ND	0.0100/0.0300	Pass	Thiamethoxam	0.01	ND	0.00500/0.0100	Pass
Imazalil	0.01	ND	0.00500/0.0100	Pass	Thiophanate-methyl	0.02	ND	0.0100/0.0200	Pass
Imidacloprid	0.01	ND	0.00500/0.0100	Pass	Trifloxystrobin	0.01	ND	0.00500/0.0100	Pass

Compliance requirements for this test are taken from CO Hemp regulations.



[Signature]