

SAMPLE NAME: Broad Spectrum Extract

Concentrate, Product Inhalable

CULTIVATOR / MANUFACTURER
Business Name:
License Number:
Address:
DISTRIBUTOR / TESTED FOR
Business Name: Colorado
 Botanicals
License Number:
Address:
SAMPLE DETAIL
Batch Number: BSX113
Sample ID: 221104M013

Date Collected: 11/04/2022
Date Received: 11/04/2022
Batch Size:
Sample Size:
Unit Mass:
Serving Size:


Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY
Total THC: Not Detected
Total CBD: 88.118%
Sum of Cannabinoids: 96.6%
Total Cannabinoids: 96.60%

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:

Total THC = Δ^9 -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids = Δ^9 -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ^8 -THC + CBL + CBN

Total Cannabinoids = (Δ^9 -THC+0.877*THCa) + (CBD+0.877*CBDa) + (CBG+0.877*CBGa) + (THCV+0.877*THCVa) + (CBC+0.877*CBCa) + (CBDV+0.877*CBDVa) + Δ^8 -THC + CBL + CBN

TERPENOID ANALYSIS - SUMMARY

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 1.2916%


SAFETY ANALYSIS - SUMMARY
Pesticides: **PASS**
Residual Solvents: **PASS**
Heavy Metals: **PASS**

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: California Code of Regulations Title 4 Division 19. Department of Cannabis Control Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)


 Approved by: Josh Wurzer
 Job Title: President
 Date: 11/17/2022



Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: **Not Detected**

Total THC (Δ^9 -THC+0.877*THCa)

TOTAL CBD: **88.118%**

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: **96.60%**

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 -THC + CBL + CBN

TOTAL CBG: **5.58%**

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: **ND**

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: **0.35%**

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: **0.063%**

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 11/07/2022

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.07 / 0.29	±31.722	881.18	88.118
CBG	0.06 / 0.19	±1.713	55.80	5.580
CBN	0.1 / 0.3	±1.27	24.9	2.49
CBC	0.2 / 0.5	±0.08	3.5	0.35
CBDV	0.04 / 0.15	±0.021	0.63	0.063
Δ^9 -THC	0.06 / 0.26	N/A	ND	ND
Δ^8 -THC	0.1 / 0.4	N/A	ND	ND
THCa	0.05 / 0.14	N/A	ND	ND
THCV	0.1 / 0.2	N/A	ND	ND
THCVa	0.07 / 0.20	N/A	ND	ND
CBDA	0.02 / 0.19	N/A	ND	ND
CBDVa	0.03 / 0.53	N/A	ND	ND
CBGa	0.1 / 0.2	N/A	ND	ND
CBL	0.06 / 0.24	N/A	ND	ND
CBCa	0.07 / 0.28	N/A	ND	ND
SUM OF CANNABINOIDS			966.0 mg/g	96.6%

Terpene Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

Method: QSP 1192 - Analysis of Terpenoids by GC-FID

1 **β -Caryophyllene**

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB₂ receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

TERPENOID TEST RESULTS - 11/07/2022

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β -Caryophyllene	0.004 / 0.012	±0.1674	6.044	0.6044
α -Humulene	0.009 / 0.029	±0.0604	2.417	0.2417
Guaiol	0.009 / 0.030	±0.0418	1.139	0.1139
Caryophyllene Oxide	0.010 / 0.033	±0.0381	1.063	0.1063
α -Bisabolol	0.008 / 0.026	±0.0406	0.979	0.0979
Terpineol	0.009 / 0.031	±0.0141	0.294	0.0294
Nerolidol	0.006 / 0.019	±0.0144	0.294	0.0294
Valencene	0.009 / 0.030	±0.0112	0.209	0.0209
trans- β -Farnesene	0.008 / 0.025	±0.0055	0.201	0.0201
Fenchol	0.010 / 0.034	±0.0039	0.131	0.0131
Borneol	0.005 / 0.016	±0.0040	0.121	0.0121
Citronellol	0.003 / 0.010	±0.0009	0.024	0.0024
Linalool	0.009 / 0.032	N/A	<LOQ	<LOQ

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Terpenoid Analysis *Continued*

TERPENOID TEST RESULTS - 11/07/2022 *continued*

2 α -Humulene

Also known as α -caryophyllene, it is an isomer of the sesquiterpene β -Caryophyllene which frequently occurs in nature with many aromatic plants across the globe. It has a fragrance that can be described as earthy or musky with spicy undertones. Found in hops, forskohlii, skullcaps, basil, nutmeg, cloves, sage, cotton, tamarind, black pepper, guava, Scotch pine...etc.

3 Guaiol

A sesquiterpene alcohol with a fragrance that can be described as floral, piney, herbal and woody. Found in guaiacum, cypress pine, ginseng, melaleuca, goatweed, incense grass...etc.

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Nerol	0.003 / 0.011	N/A	<LOQ	<LOQ
Geraniol	0.002 / 0.007	N/A	<LOQ	<LOQ
α -Pinene	0.005 / 0.017	N/A	ND	ND
Camphene	0.005 / 0.015	N/A	ND	ND
Sabinene	0.004 / 0.014	N/A	ND	ND
β -Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
α -Phellandrene	0.006 / 0.020	N/A	ND	ND
Δ^3 -Carene	0.005 / 0.018	N/A	ND	ND
α -Terpinene	0.005 / 0.017	N/A	ND	ND
p-Cymene	0.005 / 0.016	N/A	ND	ND
Limonene	0.005 / 0.016	N/A	ND	ND
Eucalyptol	0.006 / 0.018	N/A	ND	ND
β -Ocimene	0.006 / 0.020	N/A	ND	ND
γ -Terpinene	0.006 / 0.018	N/A	ND	ND
Sabinene Hydrate	0.006 / 0.022	N/A	ND	ND
Fenchone	0.009 / 0.028	N/A	ND	ND
Terpinolene	0.008 / 0.026	N/A	ND	ND
Isopulegol	0.005 / 0.016	N/A	ND	ND
Camphor	0.006 / 0.019	N/A	ND	ND
Isoborneol	0.004 / 0.012	N/A	ND	ND
Menthol	0.008 / 0.025	N/A	ND	ND
Pulegone	0.003 / 0.011	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
α -Cedrene	0.005 / 0.016	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
TOTAL TERPENOIDS			12.916 mg/g	1.2916%



Pesticide Analysis

PESTICIDE TEST RESULTS - 11/10/2022 ✔ PASS

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

*GC-MS utilized where indicated.

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

COMPOUND	LOD/LOQ (μ g/g)	ACTION LIMIT (μ g/g)	MEASUREMENT UNCERTAINTY (μ g/g)	RESULT (μ g/g)	RESULT
Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	0.1	N/A	ND	PASS
Bifentazate	0.01 / 0.04	0.1	N/A	ND	PASS
Bifenthrin	0.02 / 0.05	3	N/A	ND	PASS
Boscalid	0.03 / 0.09	0.1	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	\geq LOD	N/A	ND	PASS
Cypermethrin	0.11 / 0.32	1	N/A	ND	PASS
Etoazole	0.02 / 0.06	0.1	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	0.1	N/A	ND	PASS

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Pesticide Analysis *Continued*

PESTICIDE TEST RESULTS - 11/10/2022 *continued* ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Imidacloprid	0.04 / 0.11	5	N/A	ND	PASS
Malathion	0.03 / 0.09	0.5	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.04 / 0.12	0.5	N/A	ND	PASS
Piperonyl Butoxide	0.02 / 0.07	3	N/A	ND	PASS
Propiconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Trifloxystrobin	0.03 / 0.08	0.1	N/A	ND	PASS



Residual Solvents Analysis

RESIDUAL SOLVENTS TEST RESULTS - 11/15/2022 ✔ PASS

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

Total Butanes = n-Butane + 2-Methylpropane (Isobutane)
Total Heptanes = 2,2-Dimethylpentane (Neoheptane) + 2,3-Dimethylpentane + 2,4-Dimethylpentane + 3,3-Dimethylpentane + 2,2,3-Trimethylbutane (Triptane) + 2-Methylhexane (Isoheptane) + 3-Methylhexane + 3-Ethylpentane + n-Heptane
Total Xylenes = 1,2-Dimethylbenzene (o-Xylene) + 1,3-Dimethylbenzene (m-Xylene) / 1,4-Dimethylbenzene (p-Xylene)

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Propane	0.234 / 0.781	5000	N/A	ND	PASS
2-Methylpropane (Isobutane)	0.052 / 0.173		N/A	ND	
n-Butane	0.019 / 0.063	5000	N/A	ND	PASS
Total Butanes				ND	
n-Pentane	0.310 / 1.033	5000	N/A	ND	PASS
n-Hexane	0.110 / 0.366	290	N/A	ND	PASS
2,2-Dimethylpentane (Neoheptane)	0.493 / 1.642		N/A	ND	
2,3-Dimethylpentane	1.009 / 3.365		N/A	ND	
2,4-Dimethylpentane	0.737 / 2.458		N/A	ND	
3,3-Dimethylpentane	0.198 / 0.660		N/A	ND	
2,2,3-Trimethylbutane (Triptane)	0.521 / 1.738		N/A	ND	
2-Methylhexane (Isoheptane)	0.610 / 2.034		N/A	ND	
3-Methylhexane	0.235 / 0.785		N/A	ND	
3-Ethylpentane	0.304 / 1.012		N/A	ND	
n-Heptane	13.12 / 43.72	5000	N/A	ND	PASS
Total Heptanes				ND	
Benzene	0.089 / 0.295	1	N/A	ND	PASS
Toluene	0.115 / 0.382	890	N/A	ND	PASS
1,3-Dimethylbenzene / 1,4-Dimethylbenzene	0.451 / 1.502		N/A	ND	
1,2-Dimethylbenzene (o-Xylene)	0.387 / 1.289		N/A	ND	
Total Xylenes		2170		ND	PASS
Methanol	5.534 / 16.77	3000	N/A	ND	PASS
Ethanol	8.984 / 27.23	5000	N/A	ND	PASS
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	5000	N/A	ND	PASS

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Residual Solvents Analysis

Continued

RESIDUAL SOLVENTS TEST RESULTS - 11/15/2022 *continued* ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Acetone	9.510 / 28.82	5000	N/A	<LOQ	PASS



Heavy Metals Analysis

HEAVY METALS TEST RESULTS - 11/10/2022 ✔ PASS

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP 1160 - Analysis of Heavy Metals by ICP-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Arsenic	0.02 / 0.1	0.2	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	0.1	N/A	ND	PASS

NOTES

COA amended, photo removed, Batch ID and Sample Name Updated