



Client Name: River Organics

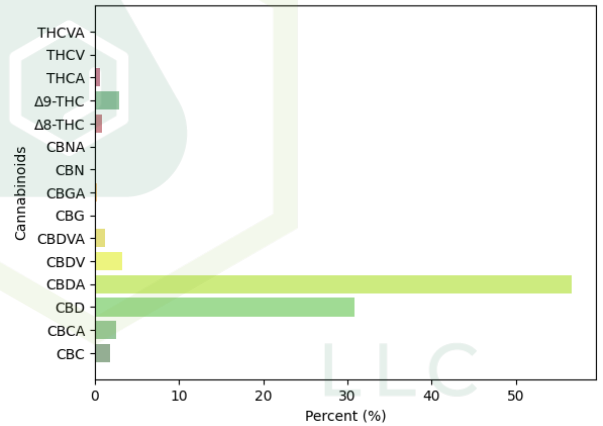


Sample ID: SAM-2021-533
Sample Name: Organic CBD Pain Relief Balm
Sample Matrix: Topical
Sample Type: Topical
Sample Date:
Sampling Method:
Sampling Technician:
Client Batch ID:
Client Sample Size:
Client State Tracking ID:

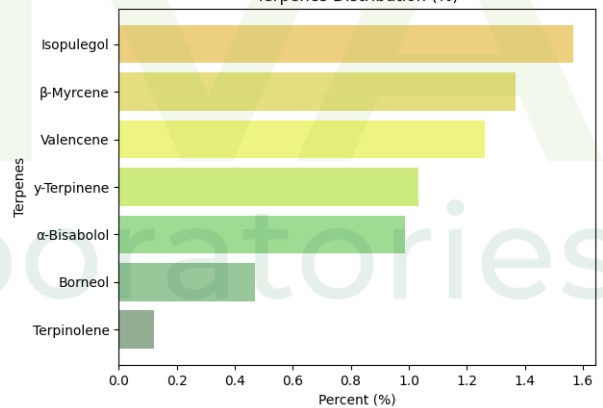
Results Summary

Cannabinoids 12/09/2021	TESTED
Terpenes 12/14/2021	TESTED
Residual Solvents 12/16/2021	TESTED
Pesticides 12/22/2021	✓ PASS
Heavy Metals 12/10/2021	✓ PASS
Microbial Impurities	✓ PASS
Mycotoxins 12/20/2021	✓ PASS

Cannabinoid Distribution (%)



Terpenes Distribution (%)





Cannabinoids

Date Analyzed: 12/07/2021
Instrument: HPLC-UV/Vis

Date Completed: 12/09/2021
Method: HP001/HP003

Analyst: B T

Cannabinoid	Result (%)	Result (mg/g)	LOQ (mg/g)
CBC	0.02	0.24	0.10
CBCA	0.03	0.32	0.10
CBD	0.39	3.93	0.10
CBDA	0.72	7.23	0.10
CBDV	0.04	0.42	0.10
CBDVA	0.02	0.16	0.10
CBG	<LOQ	<LOQ	0.10
CBGA	<LOQ	<LOQ	0.10
CBN	<LOQ	<LOQ	0.10
CBNA	<LOQ	<LOQ	0.10
Δ8-THC	0.01	0.10	0.10
Δ9-THC	0.04	0.37	0.10
THCA	<LOQ	<LOQ	0.10
THCV	<LOQ	<LOQ	0.10
THCVA	<LOQ	<LOQ	0.10
Total THC	0.04	0.37	-
Total CBD	1.03	10.27	-
Total Cannabinoids	1.28	12.76	-

LOQ= Limit of quantitation, ND = Not detected, NR = Not reported
Total THC = THCa * 0.877 + d9-THC, Total CBD = CBDa * 0.877 + CBD

LLC

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Terpenes

Date Analyzed: 12/09/2021
Instrument: HS-GC/MS

Date Completed: 12/14/2021
Method: HP002

Analyst: A D

Terpene	Result (mg/g)	Result (%)	LOQ (mg/g)
α-Pinene	0.90	0.09	0.20
Camphene	<LOQ	<LOQ	0.20
β-Myrcene	<LOQ	<LOQ	0.20
β-Pinene	<LOQ	<LOQ	0.20
3-Carene	<LOQ	<LOQ	0.20
α-Terpinene	<LOQ	<LOQ	0.20
δ-Limonene	0.32	0.03	0.20
Eucalyptol	3.07	0.31	0.20
γ-Terpinene	<LOQ	<LOQ	0.20
Terpinolene	<LOQ	<LOQ	0.20
Linalool	1.79	0.18	0.20
Fenchone	<LOQ	<LOQ	0.20
Isopulegol	<LOQ	<LOQ	0.20
Borneol	<LOQ	<LOQ	0.20
Terpineol	<LOQ	<LOQ	0.20
Geraniol	<LOQ	<LOQ	0.20
β-Caryophyllene	0.50	0.05	0.20
α-Humulene	<LOQ	<LOQ	0.20
Valencene	<LOQ	<LOQ	0.20
cis-Nerolidol	<LOQ	<LOQ	0.20
trans-Nerolidol	<LOQ	<LOQ	0.20
Guaiol	<LOQ	<LOQ	0.20
α-Bisabolol	<LOQ	<LOQ	0.20

LOQ= Limit of quantitation, ND = Not detected, NR = Not reported

Residual Solvents

Date Analyzed: 12/14/2021
Instrument: HS-GC/MS

Date Completed: 12/16/2021
Method: HP002

Analyst: A D

Residual Solvent	Result (ppm)	LOQ (ppm)	Status
Methanol	<LOQ	10	-
Ethanol	<LOQ	10	-
Acetone	<LOQ	10	-
Isopropanol	<LOQ	10	-
Acetonitrile	<LOQ	10	-
n-Hexane	<LOQ	10	-
Tetrahydrofuran	<LOQ	10	-
Chloroform	<LOQ	10	-
Carbon-Tetrachloride	<LOQ	10	-
Benzene	<LOQ	10	-
Heptane	<LOQ	10	-
Toluene	<LOQ	10	-
p+m Xylene	<LOQ	10	-
o-Xylene	<LOQ	10	-

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 **PASS**

Pesticides

Date Analyzed: 12/20/2021
Instrument: LC-MS/MS

Date Completed: 12/22/2021
Method: HP001/HP004

Analyst: B T

Pesticide	Result (ppb)	LOQ (ppb)	Limit (ppb)	Status
Oxamyl	<LOQ	100.0	1000	Pass
Daminozide	<LOQ	100.0	1000	Pass
Acephate	<LOQ	100.0	400	Pass
Methomyl	<LOQ	100.0	400	Pass
Thiamethoxam	<LOQ	100.0	200	Pass
Imidacloprid	<LOQ	100.0	400	Pass
Dimethoate	<LOQ	100.0	200	Pass
Acetamiprid	<LOQ	100.0	200	Pass
Aldicarb	<LOQ	100.0	400	Pass
Thiacloprid	<LOQ	100.0	200	Pass
Dichlorvos	<LOQ	100.0	100	Pass
Carbofuran	<LOQ	100.0	200	Pass
Propoxur	<LOQ	100.0	200	Pass
Carbaryl	<LOQ	100.0	200	Pass
Naled	<LOQ	100.0	500	Pass
Imazalil	<LOQ	100.0	200	Pass
Metalaxyl	<LOQ	100.0	200	Pass
Phosmet	<LOQ	100.0	200	Pass
Methiocarb	<LOQ	100.0	200	Pass
Chlorantraniliprole	<LOQ	100.0	200	Pass
Boscalid	<LOQ	100.0	400	Pass
Azoxystrobin	<LOQ	100.0	200	Pass
Spiroxamine	<LOQ	100.0	400	Pass
Paclbutrazol	<LOQ	100.0	400	Pass
Malathion	<LOQ	100.0	200	Pass
Mycobutanil	<LOQ	100.0	200	Pass
Bifenazate	<LOQ	100.0	200	Pass
Spirotetramat	<LOQ	100.0	200	Pass
Ethoprophos	<LOQ	100.0	200	Pass
Fenoxycarb	<LOQ	100.0	200	Pass
Propiconazole	<LOQ	100.0	400	Pass
Kresoxim-methyl	<LOQ	100.0	400	Pass
Tebuconazole	<LOQ	100.0	400	Pass
Diazinon	<LOQ	100.0	200	Pass
Clofentezine	<LOQ	100.0	200	Pass
Trifloxystrobin	<LOQ	100.0	200	Pass
MGK-264	<LOQ	100.0	200	Pass
Prallethrin	<LOQ	100.0	200	Pass
Chlorpyrifos	<LOQ	100.0	200	Pass
Hexythiazox	<LOQ	100.0	100	Pass
Piperonyl Butoxide	<LOQ	100.0	200	Pass
Spiromesifen	<LOQ	100.0	200	Pass
Etoxazole	<LOQ	100.0	200	Pass
Abamectin	<LOQ	100.0	500	Pass
Cyfluthrin	<LOQ	100.0	1000	Pass
Cypermethrin	<LOQ	100.0	1000	Pass
Fenpyroximate	<LOQ	100.0	400	Pass
Pyridaben	<LOQ	100.0	200	Pass
Bifenthrin	<LOQ	100.0	200	Pass
Etofenprox	<LOQ	100.0	400	Pass
Acequinocyl	<LOQ	100.0	2000	Pass

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Pesticide	Result (ppb)	LOQ (ppb)	Limit (ppb)	Status
Flonicamid	<LOQ	100.0	1000	Pass
Fludioxonil	<LOQ	100.0	400	Pass
Fipronil	<LOQ	100.0	400	Pass
Permethrins	<LOQ	100.0	200	Pass
Chlorfenapyr	<LOQ	100.0	1000	Pass
Parathion Methyl	<LOQ	200.0	200	Pass
Pyrethrins	<LOQ	100.0	1000	Pass
Spinosad	<LOQ	100.0	200	Pass

LOQ= Limit of quantitation, ND = Not detected, NR = Not reported

Heavy Metals

 **PASS**

Date Analyzed: 12/09/2021
Instrument: ICP-OES, CVAA

Date Completed: 12/10/2021
Method: HP600/601/602

Analyst: A K

Heavy Metals	Result (ppm)	LOQ (ppm)	Limit (ppm)	Status
Arsenic	ND	2.500	10.0	Pass
Cadmium	ND	2.500	4.1	Pass
Lead	ND	2.500	10.0	Pass
Mercury	ND	0.500	2.0	Pass

LOQ= Limit of quantitation, ND = Not detected, NR = Not reported

Microbial Impurities

 **PASS**

Date Analyzed:
Instrument: Culture and qPCR

Date Completed:
Method: HP100/101

Sample Collection Date:
Analyst: C M

Microbials	Result (CFU/g)	Analytical Sensitivity (CFU/g)	Limit (CFU/g)	Status
Aerobic Bacteria	ND	10	200	Pass
Yeast & Mold	ND	10	20	Pass
P. aeruginosa	ND	--	Presence/absence	Pass
S. aureus	ND	--	Presence/absence	Pass

LOQ= Limit of quantitation, ND = Not detected, NR = Not reported

TNTC = Too numerous to count, CFU = Colony forming units

Comments: Sample Collection Date: Not Provided on COC

Sample Amount: 1.02 g

Pass/Fail based on USP 1111 acceptance criteria

Mycotoxins

 **PASS**

Date Analyzed: 12/17/2021
Instrument: LC-MS/MS

Date Completed: 12/20/2021
Method: HP001/HP004

Analyst: B T

Mycotoxins	Result (ppb)	LOQ (ppb)	Limit (ppb)	Status
B1	<LOQ	20.0	20	Pass
B2	<LOQ	20.0	20	Pass
G1	<LOQ	20.0	20	Pass
G2	<LOQ	20.0	20	Pass
Ochratoxin A	<LOQ	20.0	20	Pass

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Certificate of Analysis



Brandon Thorpe, PhD
Lab Director
12/22/2021



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