

Certificate of Analysis

Product Name: Reliv Hemp Balm	Product No.: RLV-7-005-3-01
	Country of Origin: USA
Lot No.: 21059	Serving Size: N/A
	Report Date: 03/11/2021
Product Packaging: 1 oz jar	

Analyte	Test Method	Acceptable Limit	Test Results
Physical			
Appearance	Visual	Semi soft solid	Conforms
Color	Visual	Off white to light yellow	Conforms
Odor	Organoleptic	Lavender and eucalyptus	Conforms
Potency			
CBD- Cannabidiol	MSP-7.5.1.4	NLT 1000 mg/oz	1082 mg/oz
Total THC (delta 9 THC and THC-A)	MSP-7.5.1.4	0.1% w/w	None detected
Impurities			
Pesticides	MSP-7.5.1.8	Below action level limits	Conforms
Solvents	MSP-7.5.1.8	Below action level limits	Conforms
Microbiological Pathogens			
Ochratoxin A	MSP-7.5.1.10	0 ppb	None detected
Aflatoxins	MSP-7.5.1.10	0 ppb	None detected
Escherichia coli	MSP-7.5.1.10	Absent	None detected
Salmonella	MSP-7.5.1.10	Absent	None detected
Yeasts & Molds	MSP-7.5.1.10	NMT 10 ² cfu/mL	Conforms
Heavy Metals			
Arsenic	MSP-7.5.1.4	NMT 1.5 ppm	Conforms
Cadmium	MSP-7.5.1.4	NMT 0.3 ppm	Conforms
Lead	MSP-7.5.1.4	NMT 1.0 ppm	Conforms
Mercury	MSP-7.5.1.4	NMT 0.5 ppm	Conforms

Quality Control: 

Date: 03/15/2021

Quality Assurance: 

Date: 3/15/20

certificate ID
1CC19

RLV Hemp Balm 1000mg

21059

rec'd 3/3/2021 3:26:05 PM

order 9991

total cannabinoids

per

1082.3mg

ounce

THC ‡ ND

CBD ‡ ND

7USC1639 Certificate of Analysis

LaCore Nutraceuticals

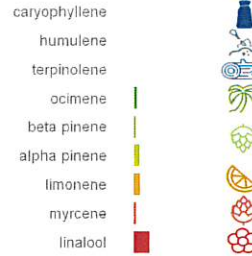
This Product Has Been Tested and Complies with 7USC1639o(1)

Stillwater Laboratories



Potency	per ounce	MSP-7.5.1.4	LOD	LOQ	error	result
total cannabinoids		1082.3mg	0.12	0.35	±9.02mg	
total THC ‡		ND	0.12	0.35	±0.35mg	
total THC (THC+THCa)		ND	0.12	0.35	±0.35mg	
total CBD ‡		1076.4mg	0.12	0.35	±8.97mg	
total CBD (CBD+CBDA)		1076.4mg	0.12	0.35	±8.97mg	
tetrahydrocannabinolic acid (THCa)		ND	0.12	0.35	±0.35mg	
Δ9-tetrahydrocannabinol (Δ9 THC)		ND	0.11	0.33	±0.33mg	
Δ8-tetrahydrocannabinol (Δ8 THC)		ND	0.15	0.44	±0.44mg	
tetrahydrocannabinavarin (THCv)		ND	0.12	0.37	±0.37mg	
cannabidiolic acid (CBDA)		ND	0.10	0.30	±0.30mg	
cannabidiol (CBD)		1076.4mg	0.12	0.35	±8.98mg	
cannabivarin (CBDv)		5.9mg	0.12	0.35	±0.39mg	
cannabigerolic acid (CBGa)		ND	0.10	0.31	±0.31mg	
cannabigerol (CBG)		ND	0.03	0.10	±0.10mg	

Terpenes



total terpenes	1.561%
linalool	0.180%
β-myrcene	0.012%
D-limonene	0.061%
α-pinene	0.053%
β-pinene	0.004%
ocimene	0.026%
terpinolene	ND
α-humulene	ND
β-caryophyllene	<LOQ
α-bisabolol	ND
camphene	<LOQ
Δ3-carene	0.019%
caryophyllene oxide	ND
para-cymene	<LOQ
eucalyptol	1.174%
geraniol	ND
guaiaol	ND

Microbial

MSP-7.5.1.10	limit	LOD	LOQ	error	result	
E.coli	ND	OCFU	0.0	0.1	±0.1CFU	PASS
Salmonella sp.	ND	OCFU	0.0	0.1	±0.1CFU	PASS
molds	ND	10000CFU	1.7	5.0	±5.0CFU	PASS
Ochratoxin A	ND	20 ppb	0.3	0.8	±0.8 ppb	PASS
Aflatoxin B1B2G1G2	ND	20 ppb	0.3	0.8	±0.8 ppb	PASS

Pesticides

MSP-7.5.1.8	limit	LOD	LOQ	error	result	
Abamectin	ND	0.30 ppm	0.005	0.014	±0.014 ppm	PASS
Acephate	ND	5.00 ppm	0.005	0.014	±0.014 ppm	PASS
Acequinocyl	ND	4.00 ppm	0.004	0.012	±0.012 ppm	PASS
Acetaminiprid	ND	5.00 ppm	0.003	0.010	±0.010 ppm	PASS
Aldicarb	ND	0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Azoxystrobin	ND	40.00 ppm	0.001	0.004	±0.004 ppm	PASS
Bifenazate	ND	5.00 ppm	0.001	0.003	±0.003 ppm	PASS
Bifenthrin	ND	0.50 ppm	0.001	0.002	±0.002 ppm	PASS
Boscalid	ND	10.00 ppm	0.013	0.039	±0.039 ppm	PASS
Carbaryl	ND	0.50 ppm	0.005	0.016	±0.016 ppm	PASS
Carbofuran	ND	0.00 ppm	0.001	0.003	±0.003 ppm	PASS
Chloraniliprole	ND	40.00 ppm	0.012	0.037	±0.037 ppm	PASS
Chlorfenapyr	ND	0.00 ppm	0.003	0.010	±0.010 ppm	PASS
Chlorpyrifos	ND	0.00 ppm	0.026	0.078	±0.078 ppm	PASS
Clofentezine	ND	0.50 ppm	0.005	0.014	±0.014 ppm	PASS
Coumaphos	ND	0.00 ppm	0.003	0.010	±0.010 ppm	PASS
Cyfluthrin	ND	1.00 ppm	0.005	0.014	±0.014 ppm	PASS
Cypermethrin	ND	1.00 ppm	0.003	0.010	±0.010 ppm	PASS
Daminozide	ND	0.00 ppm	0.018	0.053	±0.053 ppm	PASS
Dichlorvos	ND	0.00 ppm	0.009	0.027	±0.027 ppm	PASS
Diazinon	ND	0.20 ppm	0.001	0.002	±0.002 ppm	PASS
Dimethoate	ND	0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Etoxazole	ND	1.50 ppm	0.002	0.007	±0.007 ppm	PASS
Fenoxycarb	ND	0.00 ppm	0.002	0.007	±0.007 ppm	PASS
Fenpyroximate	ND	2.00 ppm	0.001	0.002	±0.002 ppm	PASS
Fipronil	ND	0.00 ppm	0.005	0.014	±0.014 ppm	PASS
Fonicamid	ND	2.00 ppm	0.063	0.189	±0.189 ppm	PASS
Fludioxonil	ND	30.00 ppm	0.004	0.013	±0.013 ppm	PASS
Hexythiazox	ND	2.00 ppm	0.001	0.002	±0.002 ppm	PASS
Imazalil	ND	0.00 ppm	0.004	0.012	±0.012 ppm	PASS
Imidacloprid	ND	3.00 ppm	0.001	0.002	±0.002 ppm	PASS
Malathion	ND	5.00 ppm	0.003	0.010	±0.010 ppm	PASS
Metalaxyl	ND	15.00 ppm	0.005	0.015	±0.015 ppm	PASS
Methiocarb	ND	0.00 ppm	0.002	0.007	±0.007 ppm	PASS
Methomyl	ND	0.10 ppm	<0.001	0.001	±0.001 ppm	PASS
Methyl parathion	ND	0.00 ppm	0.001	0.002	±0.002 ppm	PASS
Mevinphos	ND	0.00 ppm	0.003	0.010	±0.010 ppm	PASS
Myclobutanil	ND	9.00 ppm	0.001	0.002	±0.002 ppm	PASS
Naled	ND	0.50 ppm	0.003	0.010	±0.010 ppm	PASS
Oxamyl	ND	0.20 ppm	0.001	0.004	±0.004 ppm	PASS
Paclotbutrazol	ND	0.00 ppm	0.002	0.005	±0.005 ppm	PASS
Permethrin	ND	20.00 ppm	0.006	0.019	±0.019 ppm	PASS
Phosmet	ND	0.20 ppm	0.002	0.006	±0.006 ppm	PASS
Piperonylbutoxide	ND	8.00 ppm	0.007	0.020	±0.020 ppm	PASS
Prallethrin	ND	0.40 ppm	0.002	0.007	±0.007 ppm	PASS
Propiconazole	ND	20.00 ppm	0.002	0.007	±0.007 ppm	PASS
Propoxur	ND	0.00 ppm	0.004	0.011	±0.011 ppm	PASS

Solvents

MSP-7.5.1.7	limit	LOD	LOQ	error	result	
Acetone	ND	5000 ppm	0.7	1.2	±1.2 ppm	PASS
Acetonitrile	ND	410 ppm	0.6	1.8	±1.8 ppm	PASS
Benzene	ND	0 ppm	0.0	0.1	±0.1 ppm	PASS
Butane	ND	5000 ppm	1.4	4.2	±4.2 ppm	PASS
Chloroform	ND	0 ppm	0.1	0.2	±0.2 ppm	PASS
Cyclohexane	ND	0 ppm	0.5	1.6	±1.6 ppm	PASS
Ethanol	ND	10000 ppm	0.7	1.2	±1.2 ppm	PASS
Heptane	ND	5000 ppm	0.4	1.2	±1.2 ppm	PASS
Hexane	ND	290 ppm	0.5	1.6	±1.6 ppm	PASS
Isopropyl alcohol	ND	5000 ppm	0.6	1.9	±1.9 ppm	PASS
Methanol	ND	3000 ppm	0.5	1.6	±1.6 ppm	PASS
Pentane	ND	5000 ppm	0.2	0.6	±0.6 ppm	PASS
Propane	ND	5000 ppm	0.5	1.6	±1.6 ppm	PASS
Toluene	ND	890 ppm	0.3	0.9	±0.9 ppm	PASS
Xylenes	ND	2170 ppm	0.3	1.0	±1.0 ppm	PASS

Metals

MSP-7.5.1.11	limit	LOD	LOQ	error	result	
Arsenic	ND	1500 ppb	8.0	23.9	±23.9 ppb	PASS
Cadmium	ND	500 ppb	8.6	25.7	±25.7 ppb	PASS
Lead	ND	500 ppb	13.4	40.1	±40.1 ppb	PASS
Mercury	ND	300 ppb	6.7	20.2	±20.2 ppb	PASS

Pesticides

MSP-7.5.1.8	limit	LOD	LOQ	error	result	
Pyrethrin	ND	1.00 ppm	0.002	0.005	±0.005 ppm	PASS
Pyridaben	ND	3.00 ppm	0.001	0.002	±0.002 ppm	PASS
Spinetoram	ND	3.00 ppm	0.002	0.007	±0.007 ppm	PASS
Spinosad	ND	3.00 ppm	0.004	0.013	±0.013 ppm	PASS
Spiromesifen	ND	12.00 ppm	0.002	0.006	±0.006 ppm	PASS
Spirotetramat	ND	13.00 ppm	0.001	0.004	±0.004 ppm	PASS
Spiroxamine	ND	0.00 ppm	0.001	0.002	±0.002 ppm	PASS
Tebuconazole	ND	2.00 ppm	0.003	0.010	±0.010 ppm	PASS
Thiacloprid	ND	0.10 ppm	0.001	0.002	±0.002 ppm	PASS
Thiamethoxam	ND	4.50 ppm	0.002	0.006	±0.006 ppm	PASS
Trifloxystrobin	ND	30.00 ppm	0.001	0.004	±0.004 ppm	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:

Kyle Larson, MSC
Deputy Director

Jacob Harris
QA Manager



ISO/IEC 17025:2017

https://portal.a2la.org/scopepdf/4961-01.pdf

Stillwater Laboratories Inc.
MT License L0001, L00007
6073 US93N Suite 5, Olney MT 59927
406-881-2019

INSTRUMENTS: Potency by HPLC (LC2030C-UV), solvents and terpenes by GCMS (QP2020/HS20), pesticides and mycotoxins by LCMSMS (LC8060), microbial by qPCR (AriaMx) and plating (Hardy Diagnostics), metals by ICPMS (ICPMS-2030)

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]_{HPLC} x volume_{dilution}/M_{dry}. ... Decarboxyated cannabinoid concentration is calculated XXX_{total} = 0.877 x XXX_a + XXX. Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s_p² = Σ (d_i/d_i)²s_i² where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t_{c1.90} x s_p. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable, ‡ = decarbed

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