



JOY ORGANICS

CERTIFICATE OF ANALYSIS

PRODUCT NAME: Joy Organics CBD 2 oz Salve
PRODUCT STRENGTH: 1000 mg
LOT NUMBER: 20153-08
BEST BY DATE: 06/02/2022
HEMP EXTRACT LOT [JP090319B7](#)

Click on the links to view third-party reports

Physical Attributes

Test	Method	Specification	Results
Color	SOP-100	Light off white to yellow opaque, hint of green	PASS
Odor	SOP-100	Lavender, eucalyptus, hint of beeswax and coconut	PASS
Appearance	SOP-100	Firm, semi-waxy salve in container with screw lid	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and pressure seal intact	PASS
Secondary Package Eval.	SOP-132	Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure.	PASS

Review of Third-Party Analysis

Panel	Method	Specification	Results*	Pass/Fail
Potency - Total CBD	SOP-111	950-1250 mg CBD LOQ**: 10 PPM† (0.001%)	1049.1mg	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	ND	PASS
Compliant Pesticide Panel	SOP-111	WIP-100008 : Product specification for Topicals Oregon Action limits apply	ND	PASS
Microbial - Stec E.Coli	SOP-111	Complies with USP 61/62	Below LOD	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	Below LOD	PASS
Microbial - Yeast and Mold	SOP-111	Complies with USP 61/62	Below LOD	PASS
CA Compliant Heavy Metal Panel	SOP-111	Arsenic (As): ≤1.5 PPM Cadmium (Cd): ≤0.5 PPM Mercury (Hg): ≤1.0 PPM Lead (Pb): ≤0.5 PPM	Below LOQ	PASS

**Level of Quantitation, † Parts Per Million

Quality Certified by:

Darcie Moran

06/03/2020

Darcie Moran
 Manager of Quality Assurance

Date

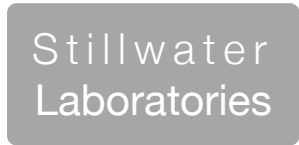


total cannabinoids
1063 mg
 per
2oz jar

Δ^9 -THC 0 mg
 CBD 1045 mg

THCa 0 mg
 CBDa 4 mg

total THC 0 mg
 total CBD 1049 mg



Lot# 20153-08

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

Sample Handling

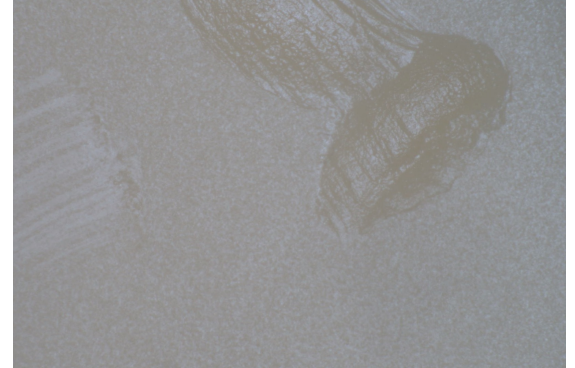
test ID sample wt 56.7 g
 type topical order 7459
 lab ID OFC44 sample date 6/3/2020
 unit 2oz jar unit weight 56.7 g

Methods

method	equipment
weights MSP-7.3.1.3	AUX120.1
potency MSP-7.5.1.5	LC-2030
terpenes MSP-7.5.1.7	QP2020/HS20
pesticides MSP-7.5.1.8	LC-8060
mycotoxins MSP-7.5.1.8	LC-8060
microbial MSP-7.5.1.9	Hardy Diag
solvents MSP-7.5.1.6	QP2020/HS20
metals MSP-7.5.1.1	ICPMS2030



topical



Potency	per	2oz jar	estimated error	Terpenes	%	estimated error	%	estimated error	%	estimated error		
tetrahydrocannabinolic acid (THCa)	0%	0 mg	± 0.93 mg	β -myrcene	0.000%	± 0.0016%	camphene	0.000%	± 0.0016%	guaiaol	0.000%	± 0.0016%
Δ^9 -tetrahydrocannabinol (Δ^9 THC)	0%	0 mg	± 0.93 mg	β -caryophyllene	0.000%	± 0.0016%	Δ^3 -carene	0.000%	± 0.0016%	β -bisabolol	0.000%	± 0.0016%
Δ^8 -tetrahydrocannabinol (Δ^8 THC)	0%	0 mg	± 0.93 mg	alpha-pinene	0.000%	± 0.0016%	a-terpinene	0.000%	± 0.0016%	eucalyptol	0.000%	± 0.0016%
tetrahydrocannabivarin (THCv)	0%	0 mg	± 0.93 mg	β -pinene	0.000%	± 0.0016%	para-cymene	0.000%	± 0.0016%			
cannabidiolic acid (CBDA)	.01%	4 mg	± 1.04 mg	D-limonene	0.000%	± 0.0016%	g-terpinene	0.000%	± 0.0016%			
cannabidiol (CBD)	1.84%	1045 mg	± 7.23 mg	linalool	0.000%	± 0.0016%	(-)-isopulegol	0.000%	± 0.0016%			total terpenes
cannabidivarin (CBDv)	.02%	12 mg	± 1.21 mg	ocimene	0.000%	± 0.0033%	geraniol	0.000%	± 0.0016%			0.00%
cannabigerolic acid (CBGa)	0%	0 mg	± 0.93 mg	terpinolene	0.000%	± 0.0016%	cis-nerolidol	0.000%	± 0.0016%			
cannabigerol (CBG)	0%	0 mg	± 0.93 mg	alpha-humulene	0.000%	± 0.0016%	trans-nerolidol	0.000%	± 0.0016%			
cannabinol (CBN)	0%	1 mg	± 0.96 mg									
cannabichromene (CBC)	0%	0 mg	± 0.93 mg									

Solvents	MT limit	0FC44	LOQ	Pesticides (MT)	MT limit	0FC44	LOQ	Pesticides (other)	0FC44	LOQ
propane	5,000	0 ppm	<10ppm	abamectin		0.00 ppm	<10ppb	acephate	0.00 ppm	<10ppb
butanes	5,000	0 ppm	<10ppm	acequinocyl		0.00 ppm	<10ppb	acetamiprid	0.00 ppm	<10ppb
pentanes	5,000	0 ppm	<10ppm	bifenazate		0.00 ppm	<10ppb	aldicarb	0.00 ppm	<10ppb
hexanes	290	0 ppm	<10ppm	bifenthrin		0.00 ppm	<10ppb	azoxystrobin	0.00 ppm	<10ppb
cyclohexane	3,880	0 ppm	<10ppm	chlormequat cl.		0.00 ppm	<10ppb	boscalid	0.00 ppm	<10ppb
heptanes	5,000	0 ppm	<10ppm	cyfluthrin		0.00 ppm	<80ppb	carbaryl	0.00 ppm	<10ppb
methanol	3,000	0 ppm	<10ppm	diaminozide		0.00 ppm	<10ppb	carbofuran	0.00 ppm	<10ppb
isopropanol	5,000	0 ppm	<10ppm	etoxazole		0.00 ppm	<10ppb	chloantraniliprole	0.00 ppm	<10ppb
acetone	5,000	0 ppm	<10ppm	fenoxycarb		0.00 ppm	<10ppb	chlorpyrifos	0.00 ppm	<10ppb
ethyl acetate	5,000	0 ppm	<10ppm	imazalil		0.00 ppm	<10ppb	clofentazine	0.00 ppm	<10ppb
benzene	2	0 ppm	<0.2ppm	imidacloprid		0.00 ppm	<10ppb	cypermethrin	0.00 ppm	<10ppb
toluene	890	0 ppm	<10ppm	myclobutanil		0.00 ppm	<10ppb	diazinon	0.00 ppm	<10ppb
xylenes	2,170	0 ppm	<10ppm	paclobutrazol		0.00 ppm	<10ppb	dichlorvos	0.00 ppm	<10ppb
chloroform	2	0 ppm	<0.2ppm	pyrethrins		0.00 ppm	<10ppb	dimethoate	0.00 ppm	<10ppb
dichloromethane	600	0 ppm	<10ppm	spinosad		0.00 ppm	<10ppb	etofenprox	0.00 ppm	<10ppb
				spiromesifen		0.00 ppm	<10ppb	fenpyroximate	0.00 ppm	<10ppb
				spirotetramat		0.00 ppm	<10ppb	fipronil	0.00 ppm	<10ppb
				trifloxystrobin		0.00 ppm	<10ppb	flonicamid	0.00 ppm	<10ppb

Toxic Metals	MT limit	0FC44	LOQ
arsenic	2 ppm	0.0 ppm	<10ppb
cadmium	4.1 ppm	0.0 ppm	<10ppb
lead	1.2 ppm	0.0 ppm	<10ppb
mercury	0.4 ppm	0.0 ppm	<10ppb

Microbial	MT limit	0FC44	LOQ
<i>E. coli</i>	10 CFU	0 CFU	<10 CFU/g
Salmonella sp.	10 CFU	0 CFU	<10 CFU/g
molds	10000 CFU	0 CFU	<10k CFU/g
Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb	<20 ppb
Ochratoxin A	20 ppb	0 ppb	<20 ppb

Comments

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]_{HPLC} x volume_{dilution}/m_{dry}. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)_{GCMS} / m_{dry}. Decarboxyted cannabinoid concentration is calculated from the equation 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; this is combined with error from weighing and dilution using the propagation of error formula s_g² = Σ (∂f/∂i)² s_i² where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t_{CL90} x s_g. Sampling error is not

Certified by:

Kyle Larson, MSc (Biology)
 Deputy Director
 6073 US93N, Olney MT 59927
 406-881-2019 rdb@stwlabs.com

malathion	0.00 ppm	<10ppb
metalaxyl	0.00 ppm	<10ppb
methiocarb	0.00 ppm	<10ppb
methomyl	0.00 ppm	<10ppb
oxamyl	0.00 ppm	<10ppb
permethrins	0.00 ppm	<10ppb
phosmet	0.00 ppm	<10ppb
piperonyl butoxide	0.00 ppm	<10ppb
prallethrin	0.00 ppm	<10ppb
propiconazole	0.00 ppm	<10ppb
pyridaben	0.00 ppm	<10ppb
spiroxamine	0.00 ppm	<10ppb
tebuconazole	0.00 ppm	<10ppb
thiacloprid	0.00 ppm	<10ppb
thiamethoxam	0.00 ppm	<10ppb



This is an amended version of report# 19-012757/D02.R00.
Reason: Updated report formatting.

Product identity: JP090319B7
Laboratory ID: 19-012757-0002

Client/Metric ID: .
Sample Date:

Summary

Potency:

Analyte	Result (%)				
CBD	81.9		<ul style="list-style-type: none"> ● CBD ● CBDV 	CBD-Total	81.9%
CBDV†	1.86			THC-Total	< 0.177%
			(Reported in percent of total sample)		

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
(-)-Guaiol†	0.619	35.17%	(-)-caryophyllene oxide†	0.511	29.03%
β-Caryophyllene†	0.450	25.57%	Humulene†	0.0795	4.52%
Linalool†	0.0594	3.38%	(-)-a-Terpineol†	0.0411	2.34%
Total Terpenes†	1.76	100.00%			

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



Customer: My CBD Test

Product identity: JP090319B7

Client/Metric ID: .

Sample Date:

Laboratory ID: 19-012757-0002

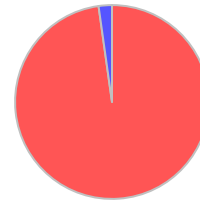
Relinquished by: UPS

Temp: 23.4 °C

Sample Results

Potency Method J AOAC 2015 V98-6 Units % Batch 1909717 Analyze 10/22/19 05:04 PM

Analyte	As Received	Dry weight	LOQ	Notes
CBC†	< LOQ		0.0943	
CBC-A†	< LOQ		0.0943	
CBC-Total†	< LOQ		0.177	
CBD	81.9		0.943	
CBD-A	< LOQ		0.0943	
CBD-Total	81.9		1.03	
CBDV†	1.86		0.0943	
CBDV-A†	< LOQ		0.0943	
CBDV-Total†	1.86		0.176	
CBG†	< LOQ		0.0943	
CBG-A†	< LOQ		0.0943	
CBG-Total†	< LOQ		0.176	
CBL†	< LOQ		0.0943	
CBN	< LOQ		0.0943	
Δ8-THC†	< LOQ		0.0943	
Δ9-THC	< LOQ		0.0943	
THC-A	< LOQ		0.0943	
THC-Total	< LOQ		0.177	
THCV†	< LOQ		0.0943	
THCV-A†	< LOQ		0.0943	
THCV-Total†	< LOQ		0.176	



● CBD
● CBDV

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	1909486	10/21/19	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	1909486	10/21/19	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	1909487	10/21/19	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	1909487	10/21/19	AOAC 2014.05 (RAPID)	X



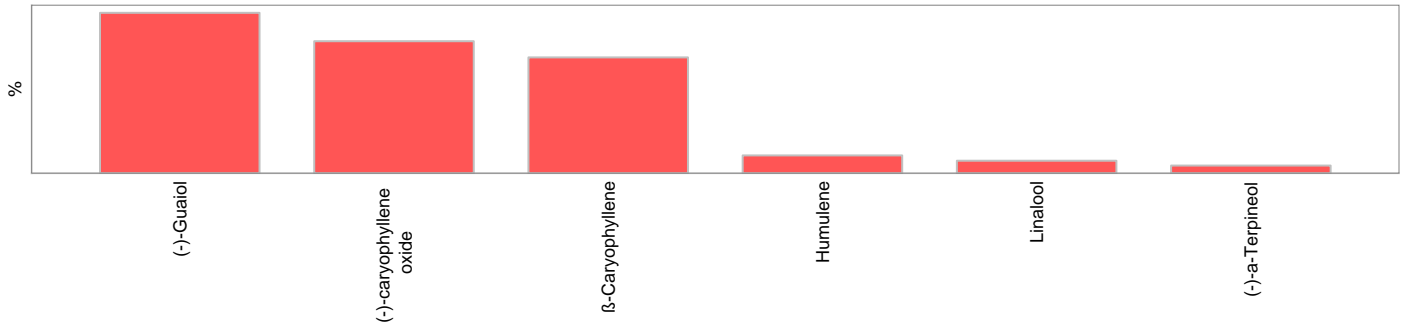
Solvents					Method EPA5021A	Units µg/g	Batch 1909460	Analyze 10/23/19 02:28 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass	
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	30.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	200	pass	
Methylpropane	< LOQ		200			n-Butane	< LOQ		200		
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0		
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass	
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl	< LOQ	2170	600	pass	

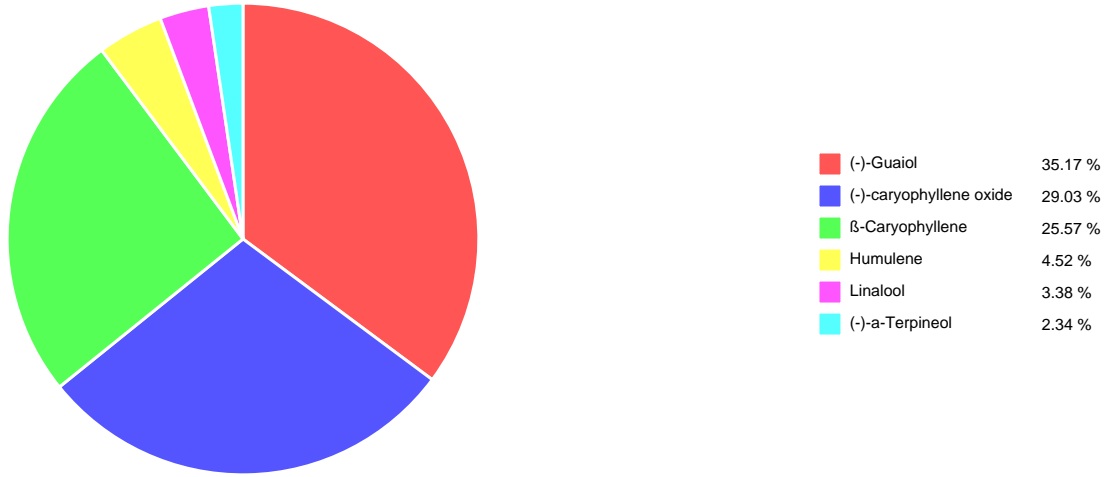


Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 1909507 Analyze 10/21/19 09:49 AM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Fonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclbutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							



Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 1909461	Analyze 10/18/19 12:07 PM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
(-)-Guaial [†]	0.619	0.020	35.17%		(-)-caryophyllene oxide [†]	0.511	0.020	29.03%	
β-Caryophyllene [†]	0.450	0.020	25.57%		Humulene [†]	0.0795	0.020	4.52%	
Linalool [†]	0.0594	0.020	3.38%		(-)-a-Terpeneol [†]	0.0411	0.020	2.34%	
(-)-Isopulegol [†]	< LOQ	0.020	0.00%		(-)-β-Pinene [†]	< LOQ	0.020	0.00%	
(+)-Borneol [†]	< LOQ	0.020	0.00%		(+)-Cedrol [†]	< LOQ	0.020	0.00%	
(+)-fenchol [†]	< LOQ	0.020	0.00%		(+)-Pulegone [†]	< LOQ	0.020	0.00%	
(±)-Camphor [†]	< LOQ	0.020	0.00%		(±)-cis-Nerolidol [†]	< LOQ	0.020	0.00%	
(±)-fenchone [†]	< LOQ	0.020	0.00%		(±)-trans-Nerolidol [†]	< LOQ	0.020	0.00%	
(R)-(+)-Limonene [†]	< LOQ	0.020	0.00%		a-Bisabolol [†]	< LOQ	0.020	0.00%	
a-cedrene [†]	< LOQ	0.020	0.00%		a-phellandrene [†]	< LOQ	0.020	0.00%	
a-pinene [†]	< LOQ	0.020	0.00%		a-Terpinene [†]	< LOQ	0.020	0.00%	
Camphene [†]	< LOQ	0.020	0.00%		cis-β-Ocimene [†]	< LOQ	0.006	0.00%	
d-3-Carene [†]	< LOQ	0.020	0.00%		Eucalyptol [†]	< LOQ	0.020	0.00%	
farnesene [†]	< LOQ	0.020	0.00%		gamma-Terpinene [†]	< LOQ	0.020	0.00%	
Geraniol [†]	< LOQ	0.020	0.00%		Geranyl acetate [†]	< LOQ	0.020	0.00%	
Isoborneol [†]	< LOQ	0.020	0.00%		Menthol [†]	< LOQ	0.020	0.00%	
nerol [†]	< LOQ	0.020	0.00%		p-Cymene [†]	< LOQ	0.020	0.00%	
Sabinene [†]	< LOQ	0.020	0.00%		Sabinene hydrate [†]	< LOQ	0.020	0.00%	
β-Myrcene [†]	< LOQ	0.020	0.00%		Terpinolene [†]	< LOQ	0.020	0.00%	
trans-β-Ocimene [†]	< LOQ	0.013	0.00%		valencene [†]	< LOQ	0.020	0.00%	
Total Terpenes	1.76								





Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Arsenic	< LOQ		mg/kg	0.100	1909726	10/25/19	AOAC 2013.06 (mod.)	X
Cadmium	< LOQ		mg/kg	0.100	1909726	10/25/19	AOAC 2013.06 (mod.)	X
Lead	< LOQ		mg/kg	0.100	1909726	10/25/19	AOAC 2013.06 (mod.)	X
Mercury	< LOQ		mg/kg	0.100	1909726	10/25/19	AOAC 2013.06 (mod.)	X



These test results are representative of the individual sample selected and submitted by the client.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

† = Analyte not NELAP accredited.

Units of Measure

cfu/g = Colony forming units per gram

µg/g = Microgram per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager