# **Certificate of Quality Assurance**

PRODUCT NAME: Lemon Tincture
PRODUCT STRENGTH: 450 mg
LOT NUMBER: HTL500-T151
OIL BATCH NUMBER: CONO19-75
DATE OF MANUFACTURE: 6/27/2019

Expiration date is 18 months under sealed conditions.

**DATE OF ANALYSIS:** 6/27/2019

ACTIVE INGREDIENT: Phytocannabinoid-Rich Hemp Oil

**INACTIVE INGREDIENTS:** See next page.

# **Physical Attributes of Raw Hemp Oil**

Attribute	Acceptance Criteria	Result
Appearance	Viscous Dark Amber Oil Possible Crystal Formation	Conforms
Aroma	Characteristic Hemp Aroma	Conforms
Dissolution	Not Cloudy or Turbid, Characteristic Color	Conforms
Microbial Testing	Total Aerobic Count <2000 cfu/g Total Yeast and Mold <2000 cfu/g	Conforms

## Cannabinoid Potency of Raw Hemp Oil

Cannabinoid	Weight %
CBD	84.99
CBG	<0.03
CBN	<0.03
THC	ND
CBC	<0.03
THC-A	ND
CBD-A	<0.03

# Pesticides\*

Compound	Result	Compound	Result
Acequinocil	ND	Spinosad	ND
Pyrethrium	ND	Spirotetramat	ND
Spiromesifin	ND	Bifenazate	ND
Abamectin	ND	Fenoxycarb	ND
Imidacloprid	ND	Paclobutrazol	ND



#### Terpene Results\*

Compound	Weight %	Compound	Weight %
β-Bisabolene	1.0-3.0	Camphene	0.1-0.2
β-Farnesene	1.0-2.0	E-Farnesene	0.1-0.2
Gualol	0.5-2.0	Farnesol	0.1-0.2
β-Maaliene	0.5-2.0	α-Bisabolol	< 0.1
Calarene	0.5-1.5	p-Cymene	< 0.1
β-Caryophyllene	0.1-1.0	Linalool	< 0.1
α-Humulene	0.1-1.0	Myrcene	< 0.1
Cadinene	0.1-1.0	Phytol	< 0.1
α-Gurjunene	0.1-0.5	Isopulegol	< 0.1
d-Limonene	0.1-0.5	Terpinene	< 0.1
Nerolidol	0.1-0.5	Geraniol	< 0.1
α-Pinene	0.1-0.5	Myrcene	< 0.1
Aristolene	0.1-0.3	γ-Terpinene	< 0.1
Eucalyptol	0.1-0.2	δ-3-Carene	< 0.1

### Residual Solvents\*

Solvent	Weight %
Acetone	Compliant with USP<467>
Butane	Compliant with USP<467>
Ethanol	Compliant with USP<467>
Hexane	Compliant with USP<467>
Isobutane	Compliant with USP<467>
Isopropanol	Compliant with USP<467>
Pentane	Compliant with USP<467>

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**DATE OF ANALYSIS:** 6/27/2019

ACTIVE INGREDIENT: Phytocannabinoid-Rich Hemp Oil

INACTIVE INGREDIENTS: Organic Medium Chain Triglycerides, Organic Lemon Essential Oil, Humulene,

Myrcene, Beta-Caryophyllene

# Heavy Metals\*

Metal	Result	
Cadmium	Compliant with USP<233>	
Lead	Compliant with USP<233>	
Arsenic	Compliant with USP<233>	
Mercury	Compliant with USP<233>	

# JOY ORGANICS

**Analysis Results for Finished Product** 

Attribute	Acceptance Criteria	Result
Appearance	Clear Colorless to Light Yellow Liquid	Conforms
Aroma	Characteristic Lemon Flavor	Conforms
Cannabidiol Content	95% to 110% of Label Claim	Conforms
THC Content	None Detected	Conforms

\* Results based on testing of multiple batches of hemp oil raw material.

Quality Certified by:

Matthew Plenert, Ph.D

Head Chemist and Laboratory Manager

Date

QC Unit released by:

David Boaz

QC Manager

Date





 Job Number:
 19-007685

 Report Number:
 19-007685-00

 Report Date:
 07/10/2019

**Purchase Order:** 

ORELAP#:

**Received:** 07/01/19 09:45

OR100028

This report cannot be used for ODA, OHA or OLCC compliance requirements.

Product identity:	HTL500-T151		Client/Metrc ID:							
Laboratory ID:	19-007685-0006		Sample Date:							
Summary										
Potency:										
Analyte per 30ml	Result Limits		_OQ	CBD-Total per 30ml	485 mg/30ml					
CBD per 30ml	485	mg/30ml 2	28.2	THC-Total per 30ml	< 53.016 mg/30m					
Pesticides:										
All analytes passing a	and less than LOQ.									
Metals:										
Less than LOQ for all	l analytes.									
Microbiology:										

Less than LOQ for all analytes.





 Job Number:
 19-007685

 Report Number:
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 Report Date:
 07/10/2019

OR100028

**Purchase Order:** 

ORELAP#:

**Received:** 07/01/19 09:45

This report cannot be used for ODA, OHA or OLCC compliance requirements.

Customer: My CBD Test

Product identity: HTL500-T151

Client/Metrc ID:

Sample Date:

Laboratory ID: 19-007685-0006

Relinquished by: Received By Mail

**Temp:** 22.9 °C **Serving Size #1:** 28.2 g

# **Sample Results**

Potency per 30ml		Batch: 1906	066			
Analyte	Result	Limits Units	LOQ	Analyze	Method	Notes
CBC per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBC-A per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBC-Total per 30ml <sup>†</sup>	< LOQ	mg/30ml	53.0	07/09/19	J AOAC 2015 V98-6	
CBD per 30ml	485	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBD-A per 30ml	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBD-Total per 30ml	485	mg/30ml	53.0	07/09/19	J AOAC 2015 V98-6	
CBDV per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBDV-A per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBDV-Total per 30ml <sup>†</sup>	< LOQ	mg/30ml	52.7	07/09/19	J AOAC 2015 V98-6	
CBG per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBG-A per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBG-Total per 30ml <sup>†</sup>	< LOQ	mg/30ml	53.0	07/09/19	J AOAC 2015 V98-6	
CBL per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
CBN per 30ml	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
$\Delta 8$ -THC per 30ml $^{\dagger}$	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
Δ9-THC per 30ml	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
THC-A per 30ml	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
THC-Total per 30ml	< LOQ	mg/30ml	53.0	07/09/19	J AOAC 2015 V98-6	
THCV per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
THCV-A per 30ml <sup>†</sup>	< LOQ	mg/30ml	28.2	07/09/19	J AOAC 2015 V98-6	
THCV-Total per 30ml <sup>†</sup>	< LOQ	mg/30ml	52.7	07/09/19	J AOAC 2015 V98-6	





 Job Number:
 19-007685

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 07/10/2019

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OR100028

Microbiology								
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	1905834	07/03/19	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	1905834	07/03/19	AOAC 991.14 (Petrifilm)	Χ
Mold	< LOQ		cfu/g	10	1905833	07/03/19	AOAC 2014.05 (RAPID)	Χ
Yeast	< LOQ		cfu/g	10	1905833	07/03/19	AOAC 2014.05 (RAPID)	X

Docticidos	Mother	۸۸۸۸	2007 04 9 EN	15662 (mad)	Unite malka Betala	1005066	Anal	70 07/05/10 10:10 AM
Pesticides Analyte	Result		LOQ Status	, ,	Units mg/kg Batch Analyte	Result		ze 07/05/19 10:10 AM LOQ Status Notes
Abamectin	< LOQ	0.50	0.250 pass	Notes	Acephate	< LOQ	0.40	0.250 pass
		2.0	•		•			·
Acequinocyl	< LOQ		1.00 pass		Acetamiprid	< LOQ	0.20	0.100 pass
Aldicarb	< LOQ < LOQ	0.40	0.200 pass		Azoxystrobin Bifenthrin	< LOQ < LOQ	0.20	0.100 pass
Bifenazate Boscalid	< LOQ < LOQ	0.20	0.100 pass			< LOQ < LOQ	0.20 0.20	0.100 pass
		0.40	0.100 pass		Carbaryl			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 (incl.	< 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		Etoxazole	< 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		Flonicamid	< 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		Paclobutrazole	< 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	0.100 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					





 Job Number:
 19-007685

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 Report Date:
 07/10/2019

**Purchase Order:** 

ORELAP#:

**Received:** 07/01/19 09:45

OR100028

Metals								
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Arsenic	< LOQ		mg/kg	0.100	1906040	07/08/19	AOAC 2013.06	Χ
Cadmium	< LOQ		mg/kg	0.100	1906040	07/08/19	AOAC 2013.06	Χ
Lead	< LOQ		mg/kg	0.100	1906040	07/08/19	AOAC 2013.06	Χ
Mercury	< LOQ		mg/kg	0.100	1906040	07/08/19	AOAC 2013.06	X





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 07/10/2019

**Purchase Order:** 

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**Received:** 07/01/19 09:45

OR100028

#### This report cannot be used for ODA, OHA or OLCC compliance requirements.

#### **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 g = Gram mg/kg = Milligram per kilogram = parts per million (ppm) mg/28.2g = Milligram per 28.2g % = Percentage of sample % wt =  $\mu$ g/g divided by 10,000

## Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner General Manager





Job Number: 19-009100

Report Number: 19-009100-00

**Report Date:** 08/08/2019

ORELAP#: OR100028

**Purchase Order:** 

**Received:** 03/19/00 11:30

This report cannot be used for ODA, OHA or OLCC compliance requirements.

Product identity: HTL500-T151 Client/Metrc ID: Laboratory ID: 19-009100-0011 Sample Date:

**Summary** 

\_\_\_\_\_

#### **Terpenes:**

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
R)-(+)-Limonene <sup>†</sup>	2.31	0.01	gamma-Terpinene <sup>†</sup>	0.314	0.00
(-)-ß-Pinene <sup>†</sup>	0.262	0.00	ß-Caryophyllene <sup>†</sup>	0.160	0.00
ß-Myrcene†	0.139	0.00	Humulene <sup>†</sup>	0.107	0.00
a-pinene†	0.0543	0.00	Sabinene <sup>†</sup>	0.0484	0.00
(+)-Pulegone <sup>†</sup>	0.0262	0.00	Total Terpenes <sup>†</sup>	3.42	0.01





Job Number: 19-009100

Report Number: 19-009100-00

Report Date: 08/08/2019

ORELAP#: OR100028

**Purchase Order:** 

**Received:** 03/19/00 11:30

This report cannot be used for ODA, OHA or OLCC compliance requirements.

Customer: My CBD Test

Product identity: HTL500-T151

Client/Metrc ID:

Sample Date:

Laboratory ID: 19-009100-0011

Relinquished by: Received By Mail

**Temp:** 25.2 °C

**Sample Results** 





 Job Number:
 19-009100

 Report Number:
 19-009100-00

 Report Date:
 08/08/2019

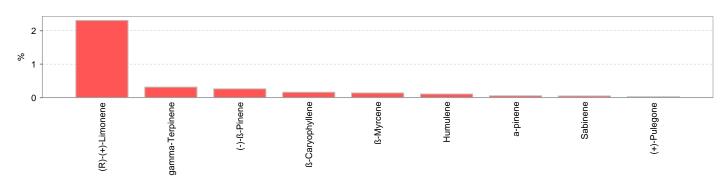
**Purchase Order:** 

ORELAP#:

**Received:** 03/19/00 11:30

OR100028

Terpenes	Method	J AOAC	2015 V98-6	3	Units % Batch	1906964	Analy	ze 08/02/19	02:17 PM
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
(R)-(+)-Limonene <sup>†</sup>	2.31	0.020	0.01%		gamma-Terpinene <sup>†</sup>	0.314	0.020	0.00%	
(-)-ß-Pinene <sup>†</sup>	0.262	0.020	0.00%		ß-Caryophyllene <sup>†</sup>	0.160	0.020	0.00%	
ß-Myrcene <sup>†</sup>	0.139	0.020	0.00%		Humulene <sup>†</sup>	0.107	0.020	0.00%	
a-pinene†	0.0543	0.020	0.00%		Sabinene <sup>†</sup>	0.0484	0.020	0.00%	
(+)-Pulegone <sup>†</sup>	0.0262	0.020	0.00%		(-)-a-TerpineoI <sup>†</sup>	< LOQ	0.020	0.00%	
(-)-caryophyllene oxide <sup>†</sup>	< LOQ	0.020	0.00%		(-)-GuaioI <sup>†</sup>	< LOQ	0.020	0.00%	
(-)-Isopulegol <sup>†</sup>	< LOQ	0.020	0.00%		(+)-BorneoI <sup>†</sup>	< LOQ	0.020	0.00%	
(+)-Cedrol <sup>†</sup>	< LOQ	0.020	0.00%		(+)-fenchol <sup>†</sup>	< LOQ	0.020	0.00%	
(±)-Camphor <sup>†</sup>	< LOQ	0.020	0.00%		(±)-cis-NerolidoI <sup>†</sup>	< LOQ	0.020	0.00%	
(±)-fenchone <sup>†</sup>	< LOQ	0.020	0.00%		(±)-trans-Nerolidol†	< LOQ	0.020	0.00%	
a-Bisabolol <sup>†</sup>	< LOQ	0.020	0.00%		a-cedrene†	< LOQ	0.020	0.00%	
a-phellandrene†	< LOQ	0.020	0.00%		a-Terpinene <sup>†</sup>	< LOQ	0.020	0.00%	
Camphene <sup>†</sup>	< LOQ	0.020	0.00%		cis-ß-Ocimene <sup>†</sup>	< LOQ	0.006	0.00%	
d-3-Carene <sup>†</sup>	< LOQ	0.020	0.00%		Eucalyptol <sup>†</sup>	< LOQ	0.020	0.00%	
farnesene <sup>†</sup>	< LOQ	0.020	0.00%		GeranioI <sup>†</sup>	< LOQ	0.020	0.00%	
Geranyl acetate <sup>†</sup>	< LOQ	0.020	0.00%		IsoborneoI <sup>†</sup>	< LOQ	0.020	0.00%	
Linalool <sup>†</sup>	< LOQ	0.020	0.00%		Menthol <sup>†</sup>	< LOQ	0.020	0.00%	
nerol <sup>†</sup>	< LOQ	0.020	0.00%		p-Cymene <sup>†</sup>	< LOQ	0.020	0.00%	
Sabinene hydrate <sup>†</sup>	< LOQ	0.020	0.00%		Terpinolene <sup>†</sup>	< LOQ	0.020	0.00%	
trans-β-Ocimene <sup>†</sup>	< LOQ	0.013	0.00%		valencene†	< LOQ	0.020	0.00%	
Total Terpenes	3.42								







 Job Number:
 19-009100

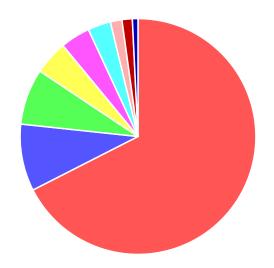
 Report Number:
 19-009100-00

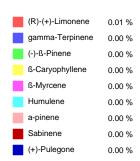
 Report Date:
 08/08/2019

 ORELAP#:
 OR100028

**Purchase Order:** 

**Received:** 03/19/00 11:30









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 19-009100

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#### **Abbreviations**

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**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

% = Percentage of sample % wt =  $\mu$ g/g divided by 10,000

Approved Signatory

Derrick Tanner General Manager