



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

PTOI Testing Lab, Inc. DBA: Medicine Creek Analytics
3700 Pacific Highway E. Suite 400, Fife, WA 98424

*(Hereinafter called the Organization) and hereby declares that Organization is accredited
in accordance with the recognized International Standard:*

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the
operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

Chemical and Microbiological Testing
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

March 17, 2017

Issue Date:

May 28, 2021

Expiration Date:

July 31, 2023

Revision Date:

February 10, 2023

Accreditation No.:

91428

Certificate No.:

L21-347-R2

*The validity of this certificate is maintained through ongoing assessments based on a
continuous accreditation cycle. The validity of this certificate should be
confirmed through the PJLA website: www.pjilabs.com*



Certificate of Accreditation: Supplement

PTOI Testing Lab, Inc. DBA: Medicine Creek Analytics

3700 Pacific Highway E. Suite 400, Fife, WA 98424

Contact Name: Amber Wise Phone: 253-382-6900

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Chemical ^F	Cannabis Plant Material	Moisture Content	SOP # MCA S009 (Gravimetric)	D.L. = 0.1 % Mw
	Cannabis Extracts	Cannabinoids: Cannabidiol (CBD) Cannabidiol (CBDV) Cannabidiolic Acid (CBDA) Cannabigerol Acid (CBGA) Cannabinol (CBN) delta-9-Tetrahydrocannabinol (THC) delta-8- Tetrahydrocannabinol-(Δ8-THC) Cannabichromene (CBC) Tetrahydrocannabivarin (THCV) Tetrahydrocannabinolic Acid (THCA)	SOP # MCA S005 (HPLC-UV)	D.L. = 0.005 % by mass
	Cannabis Infused Products	Cannabinoids: Cannabidiol (CBD) Cannabidiol (CBDV) Cannabidiolic Acid (CBDA) Cannabigerol Acid (CBGA) Cannabinol (CBN) delta-9-Tetrahydrocannabinol (THC) delta-8- Tetrahydrocannabinol-(Δ8-THC) Cannabichromene (CBC) Tetrahydrocannabivarin (THCV) Tetrahydrocannabinolic Acid (THCA)		D.L. = 0.3 mg/g
	Cannabis Plant Material	Cannabinoids: Cannabidiol (CBD) Cannabidiol (CBDV) Cannabidiolic Acid (CBDA) Cannabigerol Acid (CBGA) Cannabinol (CBN) delta-9-Tetrahydrocannabinol (THC) delta-8- Tetrahydrocannabinol-(Δ8-THC) Cannabichromene (CBC) Tetrahydrocannabivarin (THCV) Tetrahydrocannabinolic Acid (THCA)		D.L. = 0.04 % by mass



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Chemical ^F	Cannabis Plant Material	Terpenes: a-pinene Camphene b-myrcene b-pinene 3-carene a-terpinene Ocimene 2 Limonene p-cymene Ocimene 1 gamma-terpinene Terpinolene Linalool Geraniol Terpeneol 3 Terpeneol 1 Terpeneol 2 Isopulegol Citral 1 Citral 2 b-caryophyllene, a-humulene cis-nerolidol trans-nerolidol Guaiol a-bisabolol	MCA SOP ST010 GC-FID	D.L. = 20 mg/Kg
		L-(-)-Fenchone α-Terpeneol (+)-Cedrol		D.L. = 1 µg/g D.L. = 1 µg/g D.L. = 1 µg/g



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Chemical ^F	Cannabis Extracts	Terpenes: a-pinene, Camphene b-myrcene b-pinene 3-carene a-terpinene Ocimene 2 Limonene p-cymene Ocimene 1 gamma-terpinene Terpinolene Linalool Geraniol Terpeneol 3 Terpeneol 1 Terpeneol 2 Isopulegol Citral 1 Citral 2 b-caryophyllene, a-humulene cis-nerolidol trans-nerolidol Guaiol, a-bisabolol	MCA SOP ST010 GC-FID	D.L. = 20 mg/Kg
		L-(-)-Fenchone α-Terpeneol (+)-Cedrol		D.L. = 1 µg/g D.L. = 1 µg/g D.L. = 1 µg/g



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Chemical ^F	Cannabis Plant Material Cannabis Extracts Cannabis Infused Products	Pesticide residues: Methiocarb Spirotetramat Furathiocarb Spinosad A Spinosad D Aldicarb Methomyl Boscalid Spiroxamine Uniconazole Etofenprox Diazinon Chlorpyrifos Ethoprophos Malathion Phosmet	MCA SOP ST048 GC/MS/MS	D.L. = 2.5 ppb (µg/L) D.L. = 2.5 ppb (µg/L) D.L. = 2.5 ppb (µg/L) D.L. = 5 ppb (µg/L) D.L. = 2.5 ppb (µg/L) D.L. = 3 ppb (µg/L) D.L. = 5 ppb (µg/L) D.L. = 10 ppb (µg/L) D.L. = 2.5 ppb (µg/L) D.L. = 2.5 ppb (µg/L) D.L. = 2.5 ppb (µg/L) D.L. = 10 ppb (µg/L) D.L. = 5 ppb (µg/L) D.L. = 10 ppb (µg/L) D.L. = 2.5 ppb (µg/L)	
		Mycotoxins: Total Aflatoxins Total Ochratoxins	MCA S016_Rev 1.1 (ELISA)	D.L. = 2 ppb	
		Water Activity	MCA S017_Rev 1.0 (Dew Point Water Activity Meter)	Range: 0 a _w to 1 a _w D.L. = <0.25 a _w	
		Cannabis Plant Material Cannabis Infused products	Heavy Metals: Arsenic Cadmium Lead Mercury	MCA SOP ST026 ICP/MS / Microwave Digestion	Calibration curve Range: As: 5 ppb to 100 ppb Cd, Pb, Hg: 2.5 ppb to 50 ppb
					As = 0.5 ppb (µg/L) Cd = 0.3 ppb (µg/L) Pb = 0.4 ppb (µg/L) Hg = 1.3 ppb (µg/L)
					As = 3.4 ppb (µg/L) Cd = 2.1 ppb (µg/L) Pb = 0.1 ppb (µg/L) Hg = 4.1 ppb (µg/L)
					As = 2.4 ppb (µg/L) Cd = 1.3 ppb (µg/L) Pb = 1.3 ppb (µg/L) Hg = 2.4 ppb (µg/L)
		Cannabis Plant Material			
		Cannabis Extracts			
		Cannabis Infused Products			



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Chemical ^F	Cannabis Extracts Cannabis Infused Products	Residual Solvents: Acetone Acetonitrile Benzene Butane Chloroform Cyclohexane Dichloromethane Ethanol Ethyl acetate Ethyl ether Heptane Hexane Isobutane Methanol Pentane 2-Propanol (IPA) Propane Toluene Xylenes (m, p, o)	MCA SOP ST011 GC-FID	D.L. = 5 µg/g D.L. = 10 µg/g D.L. = 0.3 µg/g D.L. = 5 µg/g D.L. = 50 µg/g D.L. = 10 µg/g D.L. = 25 µg/g D.L. = 5 µg/g D.L. = 10 µg/g D.L. = 5 µg/g D.L. = 10 µg/g D.L. = 2 µg/g D.L. = 5 µg/g D.L. = 10 µg/g D.L. = 2 µg/g D.L. = 5 µg/g D.L. = 10 µg/g D.L. = 20 µg/g D.L. = 20 µg/g
Microbiological ^F	Cannabis Plant Material	Microbials: Aerobic Yeast and Mold Coliform Bile Tolerant gram negative <i>E. Coli</i>	SOP # MCA S006 (Petrifilm)	D.L. = 5 mg/Kg Presence/Absence
		<i>Salmonella</i>	SOP # MCA S006 (Rapid Test Kit)	Presence/Absence

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.
2. The term Mw represents the units of measurement for moisture wet basis.