

## PERRY JOHNSON LABORATORY ACCREDITATION, INC.

# Certificate of Accreditation

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

KCA Laboratories

232 North Plaza Drive, Nicholasville, KY 40356

(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:

Lacy Scusses

Tracy Szerszen President

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver, Suite 1325 Troy, Michigan 48084 Initial Accreditation Date: Issue Date: Expiration Date: October 10, 2020 October 28, 2022 December 31, 2024 Accreditation No.: Certificate No.: 108651 L22-715

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: <u>www.pjlabs.com</u>



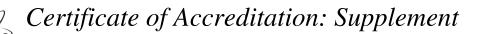
Certificate of Accreditation: Supplement

#### **KCA Laboratories**

232 North Plaza Drive, Nicholasville, KY 40356 Contact Name: Alex Morris Phone: 833-522-5227

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	Cannabis Plant	Cannabinoids:	HPLC-PDA	HPLC-PDA
	Materials Cannabis	(6aR,9R)-Δ10-THC	TP-400	LOD = 0.02%
	Concentrates	(6aR,9R,10aR)-HHC		
	Cannabis Oils	(6aR,9S)-Δ10-THC	GC-MS/MS	GC-MS/MS
	Cannabis-Infused	(6aR,9S,10aR)-HHC	TP-402	LOD = 0.067%
	Products Food Urine	(9R)-H4-CBD		
	Blood (Plasma and	(9R)-HHCP	LC-MS/MS	LC-MS/MS
	Serum)	(9S)-H4-CBD	TP-401	LOD = 0.1  ppm
		(9S)-HHCP	TP-404	LOD = 0.02  ppm
		11-OH-Δ9-THC		
		11-nor-9-COOH-∆9 -THC		
		7-COOH-CBD		
		7-OH-CBD		
		9α-OH-HHC		
		9β-ОН-ННС		
		Abnormal CBD		
		CBC		
		CBCA		
		CBCV		
		CBD		
		CBDA		
		CBDP		
		CBDV		
		CBDVA		
		CBE		
		CBG		
		CBGA	$\mathbf{X}$	
		CBGV		
		CBL		
		CBLA		
		CBLA CBN		
		CBN acetate		
		CBNA		
		CBINA		
		exo-THC		
		$\Delta 4,8$ -iso-THC		
		$\Delta 6a, 10a$ -THC		
		$\Delta 8$ -iso-THC		
		$\Delta 8$ -THC		
		$\Delta 8$ -THC acetate		
		Δ8-THC-C8		
		$\Delta 8$ -THCP		
		$\Delta 8$ -THCV		
		$\Delta 9$ -THCV		



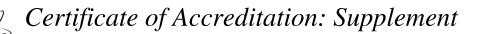


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			OR TECHNIQUE USED	DETECTION LIMIT
Chemical <sup>F</sup>	Cannabis Plant	Cannabinoids:	HPLC-PDA	HPLC-PDA
	Materials Cannabis	$\Delta 9$ -cis-THC	TP-400	LOD = 0.02%
	Concentrates	$\Delta 9$ -THC		
	Cannabis Oils	$\Delta$ 9-THC acetate	GC-MS/MS	GC-MS/MS
	Cannabis-Infused	Δ9-ΤΗϹΑ	TP-402	LOD = 0.067%
	Products Food Urine	Δ9-THCB		
	Blood (Plasma and	Δ9-THCH	LC-MS/MS	LC-MS/MS
	Serum)	$\Delta 9$ -THCP	TP-401	LOD = 0.1  ppm
	,	Δ9-ΤΗϹVΑ	TP-404	LOD = 0.02  ppm
	Cannabis Plant	Moisture Content	Moisture Balance	Range
	Materials Cannabis		TP-205	0.5% to 90%
	Concentrates			
	Cannabis Oils	Heavy Metals:	ICP-MS	LOD
	Cannabis-Infused	Arsenic	TP-403	As: 2 ppb
	Products	Cadmium		Cd: 2 ppb
		Mercury		Hg: 12 ppb
		Lead		Pb: 2 ppb
	Cannabis	Noble Metals + Nickel:	ICP-MS	LOD = 3 ppb
	Concentrates	Nickel	TP-409	rr-
		Palladium		
		Platinum		
		Rhodium		
		Ruthenium		
	Cannabis Plant	Residual Solvents:	HS-GC-MS	LOD = 1 ppm
	Materials Cannabis	1,2-Dichloroethane	TP-407	LOD I ppm
	Concentrates	1,2-Dimethoxyethane	11 107	
	Cannabis Oils	1,4-Dioxane		
	Cannabis-Infused	1-Butanol		
	Products	1-Pentanol		
	Tioducts	1-Propanol		
		2,2-Dimethylbutane		
		2,2-Dimethylpropane		
		2,3-Dimethylbutane		
		2-Butanol		
		2-Butanone		
		2-Ethoxyethanol		
		2-Methylbutane		
		2-Methylpentane		
		3-Methylpentane	1	





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Chemical F	Cannabis Plant	<b>Residual Solvents:</b>	HS-GC-MS	<b>LOD</b> = 1 ppm
	Materials Cannabis	Acetone	TP-407	
	Concentrates	Acetonitrile		
	Cannabis Oils	Benzene		
	Cannabis-Infused	Butane		
	Products	Chloroform		
		Cyclohexane		
		Dimethyl Sulfoxide		
		Ethanol		
		Ethyl Acetate		
		Ethyl Ether		
		Ethylbenzene		
		Ethylene Glycol		
		Ethylene Oxide		
		Heptane		
		Isobutane		
		Isopropyl Acetate		
		Isopropyl Alcohol		
		Isopropylbenzene (Cumene)		
		Methanol		
		Methylene Chloride		
		N, N-Dimethylacetamide		
		N, N-Dimethylformamide		
		n-Hexane		
		n-Pentane		
		n-Propane		
		Pyridine		
		Tetrahydrofuran	N.	
		Tetramethylene Sulfone		
		Toluene		
		Trichloroethylene		
	Plant Materials	Xylenes (o-, m-, and p-)	LC MC/MC	LOD 0.2 mmh
		Mycotoxins:	LC-MS/MS	<b>LOD</b> = 0.3 ppb
	Cannabis	Aflatoxin B1	TP-408	
	Concentrates	Aflatoxin B2		
	Cannabis Oils	Aflatoxin G1		
	Cannabis-Infused	Aflatoxin G2		
	Products	Ochratoxin A		



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Chemical F	Plant Materials	Pesticides:	LC-MS/MS	LOD = 3 ppb
	Cannabis	Abamectin	TP-408	
	Concentrates	Acephate		10 ppb
	Cannabis Oils	Acequinocyl		Daminozide
	Cannabis-Infused	Acetamiprid		Fludioxonil
	Products	Aldicarb		Naled
		Azoxystrobin		
		Bifenazate		
		Bifenthrin		
		Boscalid		
		Carbaryl		
		Carbofuran		
		Chloranthraniliprole		
		Chlorfenapyr		
		Chlorpyrifos		
		Clofentezine		
		Coumaphos		
		Daminozide		
		Diazinon		
		Dichlorvos		
		Dimethoate		
		Dimethomorph		
		Ethoprophos		
		Etofenprox		
		Etoxazole		
		Fenhexamid		
		Fenoxycarb	X	
		Fenpyroximate		
		Fipronil		
		Flonicamid		
		Fludioxonil		
		Hexythiazox		
		Imazalil		
		Imidacloprid		
		Kresoxim methyl		
		Malathion		
		Metalaxyl		
		Methiocarb		
		Methomyl		
		Mevinphos		
		Myclobutanil		
		Naled		
		Oxamyl		
		Paclobutrazol		
		Permethrins		





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

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Chemical <sup>F</sup>	Plant Materials	Pesticides:	LC-MS/MS	LOD = 3 ppb
	Cannabis Concentrates	Phosmet	TP-408	
	Cannabis Oils	Piperonyl Butoxide		10 ppb
	Cannabis-Infused	Prallethrin		Daminozide
	Products	Propiconazole		Fludioxonil
		Propoxur		Naled
		Pyrethrins		
		Pyridaben		
		Spinetoram		
		Spinosad		
		Spiromesifen		
		Spirotetramat		
		Spiroxamine		
		Tebuconazole		
		Thiacloprid		
		Thiamethoxam		
		Trifloxystrobin		
Microbiological F	Cannabis Plant Materials	Aerobic Plate Count	<b>3M Petrifilm</b>	LOD = 10 CFU/g
	Cannabis Concentrates	Enterobacteriaceae	TP-506	Cannabis:
	Cannabis Oils	Generic E. coli	TP-507	10 CFU/g
	Cannabis-Infused	Total Coliforms	TP-508	Food:
	Products Food	Total Yeast and Mold	TP-509	10 CFU/25g
	Environmental			Environmental:
	Water			1 CFU/area of surface tested
				Water:
				1 CFU/mL
	Cannabis Plant Materials	Enterohemorrhagic	PCR	LOD = 1 CFU/g
	Cannabis Concentrates	E. coli (EHEC)	TP-405	
	Cannabis Oils	Listeria monocytogenes	TP-406	
	Cannabis-Infused	Listeria spp.	TP-410	
	Products Food	Salmonella spp.	TP-411	
	Environmental Sponges	Shiga toxin-producing	TP-412	
	Water	E. coli (STEC)	TP-413	

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer<sup>F</sup> would mean that the laboratory performs this testing at its fixed location.