PCR labs

Analytical Test Report

Client:	Final Report	PCR-S1900090 Rev.01.00	Laboratory:
Longleaf Provisions	Report Date:	17 JUNE 2019	PCR Labs 2020 Downyflake Lane Allentown, PA 18104 215-201-5441

Sample ID #	Sample Name	Batch	Matrix	Date Received	Date Tested	Serving size weight
PCR-S19-00090	Pet Tincture	N/A	MIP	14 June 2019	17 June 2019	1.00 g

The test results presented in this report are accurate, complete, and compliant with the PCR Labs quality control criteria.

Authorization

Corey Fitze
Chief Operating Officer

Case Narrative:

For cannabinoids, the sample was extracted using organic solvents and analyzed via High Performance Liquid Chromatography (HPLC-UV). The collected data was compared to data collected from analytical reference standards at known concentrations. Values reported below quantitation limits are for informational purposes. Minor cannabinoid (CBCA) was found to be outside PCR quality criteria, but data determined to be valid.

Requested Testing:

Test	Code	Procedure	Analytes Tested	Disposition
Cannabinoid Profile	CN	PCR-TM-0002	CBGA, CBG, THCA, Δ9-THC, Δ8-THC, CBDA, CBD, CBNA, CBN, CBCA, CBC, CBLA, CBL, CBDVA, CBDV, THCVA, THCV	N/A

Cannabinoid Profile [PCR-TM-0002] Analyst: AJS *Test Date: 17 Jun 19*

The sample was analyzed for cannabinoids via High Performance Liquid Chromatography (HPLC-UV). The collected data was compared to data collected from certified analytical reference standards at known concentrations.

Table. 1. 19-00090 Pet Tincture N/A MIP Cannabinoid Testing

Analyte	Cannabinoid	Conc. (mg/serving size)	Conc. (mg/g)	LOQ (mg/g)	LOD (mg/g)
CBDVA	Cannabidivarinic acid	ND	ND	0.4	0.1
CBDV	Cannabidivarin	ND	ND	0.3	0.1
CBDA	Cannabidiolic acid	ND	ND	0.3	0.1
CBGA	Cannabigerolic acid	ND	ND	0.4	0.1
CBG	Cannabigerol	ND	ND	0.3	0.1
CBD	Cannabidiol	21.55	21.55	0.3	0.1
THCV	Tetrahydrocannabivarin	ND	ND	0.3	0.1
THCVA	Tetrahydrocannabivarinic acid	ND	ND	0.3	0.1
CBN	Cannabinol	ND	ND	0.4	0.1
CBNA	Cannabinolic acid	ND	ND	0.6	0.2
Δ9-THC	Δ9-Tetrahydrocannabinol	ND	ND	0.6	0.2
Δ8-THC	Δ8-Tetrahydrocannabinol	ND	ND	0.7	0.2
CBL	Cannabicyclol	ND	ND	0.5	0.2
CBC	Cannabichromene	0.90	0.9	0.6	0.2
THCA	Tetrahydrocannabinolic acid	ND	ND	0.5	0.2
CBCA	Cannabichromenic acid	ND	ND	0.5	0.2
CBLA	Cannabicyclolic acid	ND	ND	0.5	0.2

Note: There are no limits established by the Pennsylvania Department of Public Health for cannabinoid concentrations.
ND = Not Detected. LOQ = limit of quantitation. LOD = limit of detection.

QA/QC

Cannabinoid Profile [PCR-TM-0002] *Analyst: JBP* *Test Date: 17 Jun 19*

The sample data for certified reference standards was collected at known concentrations of cannabinoids in solution.

QC-0.05 mg/mL 17 cannabinoid multi-component 06/17/2019

ID	Cannabinoid	Nominal Prep Conc (mg/mL)	Measured Conc. (mg/mL)	Recovery (%)
CBDVA	Cannabidivarinic acid	0.05	0.049	97%
CBDV	Cannabidivarin	0.05	0.049	98%
CBDA	Cannabidiolic acid	0.05	0.053	105%
CBGA	Cannabigerolic acid	0.05	0.047	93%
CBG	Cannabigerol	0.05	0.046	92%
CBD	Cannabidiol	0.05	0.051	101%
THCV	Tetrahydrocannabivarin	0.05	0.046	91%
THCVA	Tetrahydrocannabivarinic acid	0.05	0.046	91%
CBN	Cannabinol	0.05	0.048	95%
CBNA	Cannabinolic acid	0.05	0.047	93%
Δ9-THC	Δ9-Tetrahydrocannabinol	0.05	0.050	100%
Δ8-THC	Δ8-Tetrahydrocannabinol	0.05	0.049	97%
CBL	Cannabicyclol	0.05	0.049	97%
CBC	Cannabichromene	0.05	0.047	93%
THCA	Tetrahydrocannabinolic acid	0.05	0.053	105%
CBCA	Cannabichromenic acid	0.05	0.037	73%
CBLA	Cannabicyclolic acid	0.025	0.023	92%

Criteria for successful analysis is QC recovery to be ≤20% above or below nominal.

END OF REPORT