

Testing Accreditation #: 77802

Test Certificate #: 115954-001

**Client Name, Sample Details**  
**Elder Farms**  
 Springfield, MO 65804  
**Sample:** CBD Concentrate  
**Type:** Concentrate  
**Method:** FE04U HPLC1100-1

**Test Conditions**  
**Prepsheet ID#:** MIP190327  
**Scale:** XS205-MI2  
**Temp:** 22.9 °C  
**Baro PE:** 990.4 hPa  
**Analyst:** KEB  
**Technician:** KEB

**Sample ID#:** 115954  
**Harvest/Process Date:** 03/27/2019  
**Serving Size (g):** 1  
**Date Received:** 03/27/2019  
**Test Date:** 03/27/2019  
**Valid Through:** 03/27/2020



Test Compounds	THC	THCA	CBD	CBDA	CBN	CBG*	CBC*	THCV*	CBDV*	Total Cannabinoids*	Total THC	Total CBD	Calc Max Total Cannabinoids*
Amount (%)	N/D	N/D	91.0	N/D	N/D	N/D	1.3	N/D	0.4	92.6	0.0	91.0	92.6
Amount (mg/g)	N/D	N/D	909.6	N/D	N/D	N/D	12.9	N/D	3.5	926	0.0	909.6	926.0
Amount per Serving (mg)	N/D	N/D	909.6	N/D	N/D	N/D	12.9	N/D	3.5	926.0	<b>Serving Size~ (g):</b>		1.0
LOQ (mg/g)	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46		<b>%Decarb.</b>	<b>THC</b>	<b>CBD</b>
±%RPD	0.5	10.5	3.2	4.0	1.0	2.4	1.3	2.7	8.4			N/A	100%

LOQ = Limit of Quantitation; %RPD = Relative Percent Deviation; %RSD = Relative Standard Deviation; N/D = Not Detected

\*Designates values that are not currently included in the accredited scope of Iron Laboratories.

\*\*\* Designates tests that use the method FE-45.

Total THC and CBD is the calculated sum of THC or CBD and the amount of THC or CBD derived from THCA or CBDA, respectively. These values are calculated by applying a molar correction factor of 0.877 to the THCA or the CBDA value. Calc Max Total Cannabinoids is the sum of Total THC, Total CBD, CBN, CBG, CBC, THCV, and CBDV.

%Decarb. THC and CBD refers to the percentage of THC or CBD relative to THCA or CBDA, respectively.

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*Andrea C. Ruppel*  
 Andrea C. Ruppel, Lab Manager



*Mackenzie E. Hyman*  
 Mackenzie E. Hyman, Quality Manager

Iron Laboratories, LLC is an ISO/IEC 17025:2005 Testing Laboratory laboratory, accredited by (PJLA) Perry Johnson Laboratory Accreditation, Certificate No. 77802

Tested by Iron Laboratories Michigan, 1825 E. West Maple Walled Lake, MI 48390

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Target Compound Name	Method Blank (µg/g)	LCS Spike (µg/g)	LCS Amount (µg/g)	Percent Recovery (%) LCS	LCS Duplicate Amount (µg/g)	Percent Recovery (%) LCSD	Relative Percent Difference (%)	QC Flag
Cannabidivarin (CBDV)	0	4.854039084	5.154757443	106.20	4.737585443	97.60	8.43%	
Cannabidiolic Acid (CBDA)	0	5.589796549	5.533315779	98.99	5.315637181	95.10	4.01%	
Cannabigerol (CBG)	0	5.269567455	5.117432402	97.11	4.995780173	94.80	2.41%	
Cannabidiol (CBD)	0	5.680789757	5.513406506	97.05	5.338815968	93.98	3.22%	
Δ9-Tetrahydrocannabivarin (THCV)	0	5.552933816	5.410438716	97.43	5.267640476	94.86	2.67%	
Cannabinol (CBN)	0	4.941858772	5.036484865	101.91	4.988265688	100.94	0.96%	
Δ9-Tetrahydrocannabinol (THC)	0	6.304002745	5.472004736	86.80	5.445907722	86.39	0.48%	
Cannabichromene (CBC)	0	5.908129195	5.455711881	92.34	5.386108245	91.16	1.28%	
Tetrahydrocannabinolic acid (THCA)	0	5.85065158	5.280545989	90.26	5.863314921	100.22	10.46%	

N.D. = Not Detected

LR = indicates compound recovery of matrix spike was outside the methods acceptable limits. (70-130%) Low recovery should be scrutinized for possible fail as it could indicate more compound present than is detected.

I = indicates that an amount of an interfering compound greater than the methods limit of detection was detected in the method blank sample. May indicate contamination of analytical system or consumables.

Q = indicates that the relative percent difference of two identically prepared Matrix Spike samples for a target analyte was greater than 20%

HR = indicates compound recovery of matrix spike was outside the methods acceptable limits. (70-130%) high recoveries should be scrutinized for passing as more compound may be detected than is actually present in the sample.

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Andrea C. Ruppel, Lab Manager



Mackenzie E. Hyman, Quality Manager

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