

HOW TO READ OUR CERTIFICATE OF ANALYSIS (COA)

Using Lightscale Labs, we perform all tests required under state law for recreational cannabis, medical cannabis, and industrial hemp. Chromatography is used for all required tests, a technique where liquid or gas separates different cannabinoids, pesticides, and residual solvents so that each can be identified and measured precisely.

PAGE I CANNABINOID POTENCY



TEST & HARVEST DATES

Here you can see the dates related to this particular batch of product, including when it was processed, sampled, analyzed, and when the report was finished.



CBD & THC CONTENT

Total CBD and THC content in mg/ml and percentage.



MAJOR & MINOR CANNABINOIDS

Δ9-THC, THCA, CBD, CBDA, and CBN in accordance with OAR 333-007-0430, plus minor cannabinoids.



CHECKLIST RESULTS

PASS or FAIL results for Pesticides, Solvents, and Potency within this COA.



**LIGHTSCALE
LABS**

2535 N Ross Ave
Portland, OR 97227
(503) 493-2535

info@lightscale.com
ORLAP #4112
OLCC #010-1003340D344

Shot-15-12

Danodan Hempworks

(503) 290-4079

Sample Type: Tinctures
Sample Date: 12/2/2019
Analysis Date: 12/3/2019
Report Date: 12/9/2019

Metro Batch ID:
Metro Sample ID:

Harvest/Process Date: 11/25/2019

Report ID:

LS-191204-28

Potency

Potency Analysis Date: 12/3/2019
Potency Batch ID: CAN_120319C
Potency Method: JAOAC 2015.1

16.5 mg/mL Total CBD
1.51%

0.972 mg/mL Total THC
0.0892%

Samples: ZJH-PDF-PFD, TTT-GNB-SHT
Density = 1.09 g/mL



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.28	5.05	0.947	0.996	0.972	
THCA	Tetrahydrocannabinolic acid	0.28	0.00	ND	ND	ND	
CBD	Cannabidiol	0.28	0.534	16.1	16.2	16.1	
CBDA	Cannabidiolic acid	0.28	4.24	0.352	0.367	0.360	
Δ8THC	Delta-8 Tetrahydrocannabinol*	0.28	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.28	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.28	0.493	0.441	0.444	0.443	
CBGA	Cannabigerolic acid*	0.28	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.28	4.72	0.586	0.615	0.601	
CBCA	Cannabichromenic acid*	0.28	0.00	ND	ND	ND	
CBN	Cannabinol	0.28	0.00	<LOQ	<LOQ	<LOQ	
Total THC	Δ9THC + (THCA × 0.877)		5.05	0.947	0.996	0.972	
Total CBD	CBD + (CBDA × 0.877)		0.605	16.4	16.5	16.5	
Total			0.977	18.4	18.6	18.5	

Compliance

Pesticides	Within limits	Analysis Date: 12/3/2019	Pass
Solvents	Within limits	Analysis Date: 12/3/2019	Pass
Potency	Within limits	Analysis Date: 12/3/2019	Pass

Bryce Kidd
Bryce Kidd, Ph.D.
Lab Director

Aaron Troyer
Aaron Troyer
Chief Science Officer



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PAGE 4-5 RESIDUAL SOLVENT DATA

Certain solvents can be harmful to human health and safety if they remain in the final product. If a producer uses a solvent or concentrate in their product, thorough testing is required to ensure that potential residual amounts are below recognized safety limits. Danodan uses a high-purity concentrate in our yellow and red label products, so Residual Solvent testing is required. Our blue label products do not use any solvents or concentrates; therefore, no Residual Solvent testing is needed for blue label products.

	2030 N Rouse Ave Durham, NC 27727 (919) 493-2029		info@lightslabs.com ORCLAP #4102 OLC-US-0001-0003-000344				
	Shot-15-12						
	Donor/don Hemipenns		Matrix Batch ID:				
	(015) 290-4079		Harvest/Process Date: 11/25/2019 Project ID: LS-191204-28				
Residual Solvents Sample Data		Sample Type: Tincture Sample Date: 12/2/2019 Analysis Date: 12/2/2019 Report Date: 12/16/2019		Method: EPA 8210A (Shimadzu GC System)			
		Solvents Analyzed Date: 12/2/2019 Solvents Batch ID: HES_200318A		Pack:			
Analyte	ZH-FPD-PYD	TTT-GMS-SHT	RFD (%)	Limits	LOQ	Name	Status
1,4-Dioxane	ND	ND	0.00	280.0	50.0	Pass	8
2-Octanol	ND	ND	0.00	5000.0	250.0	Pass	
2-Ethoxyethanol	ND	ND	0.00	100.0	50.0	Pass	Notes
Acetone	ND	ND	0.00	5000.0	250.0	Pass	
Acetonitrile	ND	ND	0.00	410.0	50.0	Pass	
Benzene	ND	ND	0.00	2.0	2.0	Pass	
Benzoin	ND	ND	0.00	5000.0	250.0	Pass	
Cumene	ND	ND	0.00	70.0	50.0	Pass	
Cyclohexane	ND	ND	0.00	3800.0	50.0	Pass	
Ethyl Acetate	ND	ND	0.00	5000.0	250.0	Pass	
Ethyl Ether	ND	ND	0.00	5000.0	250.0	Pass	
Ethylene Glycol	ND	ND	0.00	100.0	250.0	Pass	
Ethylene Oxide	ND	ND	0.00	50.0	50.0	Pass	
Heptane	ND	ND	0.00	5000.0	250.0	Pass	
Hexanes	ND	ND	0.00	250.0	50.0	Pass	
Isopropyl (2-Propanol)	ND	ND	0.00	5000.0	50.0	Pass	
Isopropyl Acetate	ND	ND	0.00	5000.0	250.0	Pass	
Methanol	<LOQ	<LOQ	0.00	3000.0	250.0	Pass	
Dichloromethane	ND	ND	0.00	600.0	50.0	Pass	
Pentanes	ND	ND	0.00	5000.0	250.0	Pass	
Propane	ND	ND	0.00	5000.0	250.0	Pass	
Tetrahydrofuran	ND	ND	0.00	720.0	50.0	Pass	
Toluene	ND	ND	0.00	800.0	50.0	Pass	
Xylenes	ND	ND	0.00	2170.0	50.0	Pass	

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4 of 6

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5 of 6

Energy-02

Danodan Hempworks
AG-R1058177IHH
6019 NE MLK JR. BLVD.
PORTLAND, OR 97217
(503) 290-4079

Harvest/Process Date: 1/27/2022
Sample Date: 2/1/2022
Analysis Date: 2/3/2022
Report Date: 2/7/2022
Report ID: LS-220207-13

Client Batch ID: Energy-02
Metr Batch ID:
Metr Sample ID:

Sample Type: Tinctures
Sample Plan:
WW-MG-FC-ZT_20220201_3C
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Potency

Potency Analysis Date: 2/3/2022
Potency Batch ID: CAN_020322C
Potency Method: JAOAC 2015.1

Unit Potency:
30 ml retail unit
1.02 mg THC per 2.0 ml serving
30.77 mg CBD per 2.0 ml serving

15.4 mg/mL **Total CBD 1.41%**

0.511 mg/mL **Total THC 0.0469%**

Samples: DFG-SGB-NTF, HJP-FRD-FJP



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.011	0.426	0.510	0.512	0.511	
THCA	Tetrahydrocannabinolic acid	0.011	0.00	ND	ND	ND	
CBD	Cannabidiol	0.011	1.02	15.1	15.2	15.2	
CBDA	Cannabidiolic acid	0.011	1.62	0.200	0.204	0.203	
Δ8THC	Delta-8 Tetrahydrocannabinol*	0.011	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.011	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.011	2.48	0.391	0.401	0.396	
CBGA	Cannabigerolic acid*	0.011	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.011	0.698	0.622	0.626	0.624	
CBCA	Cannabichromenic acid*	0.011	0.00	ND	ND	ND	
CBN	Cannabinol*	0.011	0.00	0.0185	0.0185	0.0185	
Total THC	Δ9THC + (THCA × 0.877)		0.426	0.510	0.512	0.511	
Total CBD	CBD + (CBDA × 0.877)		1.03	15.4	15.5	15.4	
Total			1.03	16.9	17.1	17.0	

Compliance

Potency Within limits Analysis Date: 2/3/2022 Pass 


Aaron Troyer
Chief Science Officer



Energy-02

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(503) 290-4079

Harvest/Process Date: 1/27/2022
Sample Date: 2/1/2022
Analysis Date: 2/3/2022
Report Date: 2/7/2022
Report ID: LS-220207-13

Client Batch ID: Energy-02
Metric Batch ID:
Metric Sample ID:

Sample Type: Tinctures
Sample Plan:
WW-MG-FC-ZT_20220201_3C
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Potency Quality Control Data

Potency QC Analysis Date: 2/3/2022
Potency QC Batch ID: CAN_020322C

Method: JAOAC 2015.1
Unit: µg/g (ppm)

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Δ9THC	ND	0.011	21.4	21.0	102	80 - 120	
THCA	ND	0.011	20.7	21.4	96.6	80 - 120	
CBD	ND	0.011	22.9	23.0	99.4	80 - 120	
CBDA	ND	0.011	18.1	19.5	92.8	80 - 120	

POTENCY - LIMIT OF DETECTION

Verified: 060221

Method: 160819_LAB-SOP_MethodValidation-CannabinoidPotency-v002.docx

Matrix	Analyte	LOD (ppm)	LOD (mg/g)
EXTRACT	Δ9THC	2.8	0.0028
	THCA	0.56	0.00056
	CBD	2.22	0.00222
	CBDA	0.52	0.00052
FLOWER	Δ9THC	1.88	0.00188
	THCA	5.32	0.00532
	CBD	1.31	0.00131
	CBDA	0.78	0.00078

Energy-02

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PORTLAND, OR 97217
(503) 290-4079

Harvest/Process Date: 1/27/2022
Sample Date: 2/1/2022
Analysis Date: 2/3/2022
Report Date: 2/7/2022
Report ID: LS-220207-13

Client Batch ID: Energy-02
MetrC Batch ID:
MetrC Sample ID:

Sample Type: Tinctures
Sample Plan:
WW-MG-FC-ZT_20220201_3C
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Qualifier Flag Descriptions

J	Reported result is an estimate - the value is less than the minimum calibration level but greater than the estimated detection limit (EDL)
U	The analyte was not detected in the sample at the estimated detection limit (EDL)
E	Exceeds calibration range
D	Dilution data - result was obtained from the analysis of a dilution
B	Analyte found in sample and associated blank
C	Co-eluting compound
R	Relative Percent Difference (RPD) outside control limits
NR	Analyte not reported because of problems in sample preparation or analysis
ND	Non-Detect
X	Results from reinjection/repeat/re-column data
EMC	Estimated maximum possible concentration - indicates that a peak is detected but did not meet the method required criteria
M	Manual integration
PS	Peaks split
HB	Control acceptance criteria are exceeded high and the associated sample is below the detection limit
LB	Control acceptance criteria are exceeded low and the associated sample exceeds the regulatory limit
ME	Marginal Exceedance
LR	Low Recovery Analyte
LOQ	Limit of Quantitation