

Calm-01

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

Sample Type: Tinctures
Sample Date: 3/30/2021
Analysis Date: 4/1/2021
Report Date: 4/6/2021

Metric Batch ID:

Metric Sample ID:

Harvest/Process Date: 3/29/2021
Report ID: LS-210405-46
Sample Plan ID: SP-210330-4-M-P
Sample Procedure: 160721_LAB-SOP_SampleCollection-v008

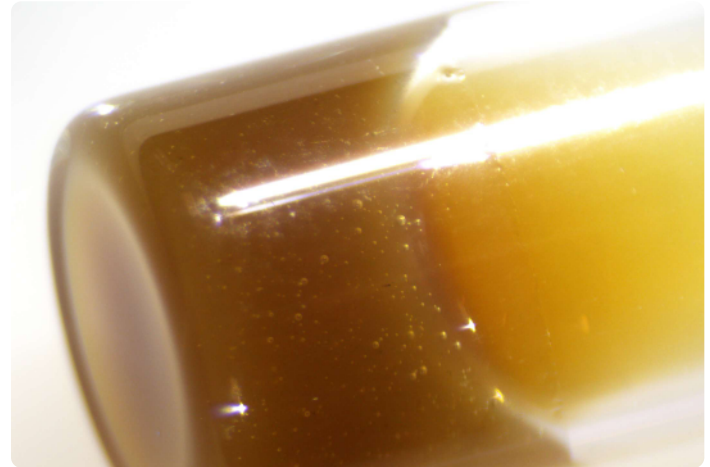
Potency

Potency Analysis Date: 4/1/2021
Potency Batch ID: CAN_040121D
Potency Method: JAOAC 2015.1

17.1 mg/mL Total CBD
1.50%

0.672 mg/mL Total THC
0.0588%


Samples: NCD-RCC-CXM, MRW-SMF-JDT, TXN-JDX-DGW, ZPX-SBG-GMJ, ZRC-PCH-BWS, NXF-DWF-DWG, HFD-JFW-DBH, CSJ-JXZ-DFW



Analyte	Description	LOQ	RSD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.0057	3.34	0.640	0.700	0.672	
THCA	Tetrahydrocannabinolic acid	0.0057	0.00	ND	ND	ND	
CBD	Cannabidiol	0.0057	1.11	16.8	17.4	17.1	
CBDA	Cannabidiolic acid	0.0057	6.40	0.0251	0.0297	0.0266	
Δ8THC	Delta-8 Tetrahydrocannabinol*	0.0057	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.0057	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.0057	3.71	0.225	0.251	0.238	
CBGA	Cannabigerolic acid*	0.0057	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.0057	0.860	0.549	0.562	0.554	
CBCA	Cannabichromenic acid*	0.0057	0.00	ND	ND	ND	
CBN	Cannabinol	0.0057	10.8	0.00686	0.00914	0.00800	
Total THC	Δ9THC + (THCA × 0.877)		3.34	0.640	0.700	0.672	
Total CBD	CBD + (CBDA × 0.877)		1.11	16.9	17.4	17.1	
Total			1.08	18.3	18.9	18.6	

Compliance

Potency Within limits Analysis Date: 4/1/2021 Pass 


Bryce Kidd, Ph.D.
Lab Director


Aaron Troyer
Chief Science Officer



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SOP_SampleCollection-v008

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

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	5.85	0.947	0.996	0.972	
THCA	Tetrahydrocannabinolic acid	0.28	0.80	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	0.80	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.28	0.80	ND	ND	ND	
CBG	Cannabigerol*	0.28	0.493	0.441	0.444	0.443	
CBGA	Cannabigerolic acid*	0.28	0.80	ND	ND	ND	
CBC	Cannabichromene*	0.28	4.72	0.586	0.615	0.601	
CBCA	Cannabichromenic acid*	0.28	0.80	ND	ND	ND	
CBN	Cannabinol	0.28	0.80	<LOQ	<LOQ	<LOQ	
Total THC	Δ9THC + (THCA × 0.877)		5.85	0.947	0.996	0.972	
Total CBD	CBD + (CBDA × 0.877)		0.685	16.4	16.5	16.5	
Total			0.977	18.4	18.6	18.5	

Compliance

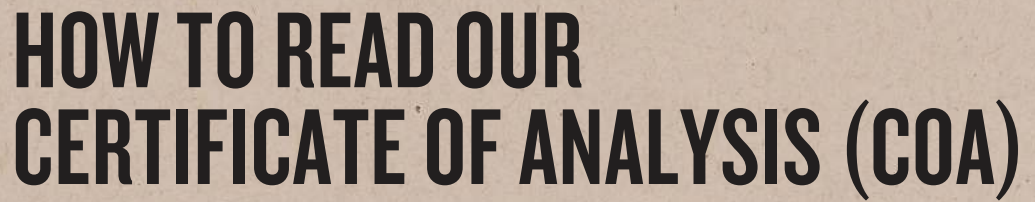
Pesticides	Within limits	Analysis Date: 12/3/2019	Pass
Solvents	Within limits	Analysis Date: 12/3/2019	Pass
Potency	Within limits	Analysis Date: 12/3/2019	Pass

Bryce Kidd
Bryce Kidd, Ph.D.
Lab Director

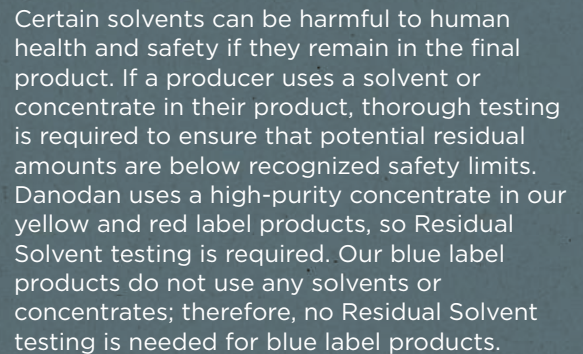
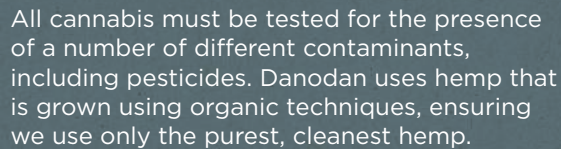
Aaron Troyer
Aaron Troyer
Chief Science Officer



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PAGE 4-5 RESIDUAL SOLVENT DATA



	2535 N Base Ave Portland, OR 97227 (503) 453-2025	info@lightslabs.com ORCLAP #9152 OLC-RT06-2020-030450348	
<h1>Shot-15-12</h1>			
Donor: Don Hemperkes (503) 260-4079	Sample Type: Tinctures Sample Date: 12/2/2019 Analysis Date: 12/2/2019 Report Date: 12/15/2019	Metric Batch ID: Metric Sample ID:	Harvest/Process Date: 11/25/2019 Report ID: LS-191204-28
<div>  Residual Solvents Sample Data </div>	Solvents Analysis Date: 12/2/2019 Solvents Batch ID: EE-1203554	Method: EPA 8210A Unit: ug/g (ppm)	Pass 
Analyte	ZSH-FPD-PID	TFT-GMS-SHT	BPD (%) Limits LOQ Notes Status
1,4-Dioxane	ND	ND	0.00 380.0 50.0 Pass
2-Butanol	ND	ND	0.00 5000.0 250.0 Pass
2-Ethoxyethanol	ND	ND	0.00 100.0 50.0 Pass
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
Bromine	ND	ND	0.00 5000.0 250.0 Pass
Cumele	ND	ND	0.00 70.0 50.0 Pass
Cyclohexane	ND	ND	0.00 3500.0 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	0.00 630.0 250.0 Pass
Ethylene Oxide	ND	ND	0.00 50.0 50.0 Pass
Heptane	ND	ND	0.00 5000.0 250.0 Pass
Hexane	ND	ND	0.00 290.0 50.0 Pass
Isopropyl (2-Propanol)	ND	ND	0.00 5000.0 250.0 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	0.00 890.0 50.0 Pass
Xylenes	ND	ND	0.00 2170.0 50.0 Pass
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