

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



Lightscale Labs is accredited by ORLAP (Lab #4112) for analysis in compliance with OAR 333-064 and OAR 333-087. Results pertain to submitted samples only. Unless otherwise noted, samples were received in good condition and Quality Control samples met acceptance criteria. This Certificate shall not be reproduced except in full, without the written approval of Lightscale Labs. Results marked with an asterisk (*) are not within scope of accreditation and for informational purposes only.



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.

[illegible]

CBDA+-01

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

Harvest/Process Date: 1/17/2022
Sample Date: 2/8/2022
Analysis Date: 2/10/2022
Report Date: 2/15/2022
Report ID: LS-220215-2

Client Batch ID: CBDA+-01
Metrac Batch ID:
Metrac Sample ID:

Sample Type: Tinctures
Sample Plan:
MF-CN-CN-WZ_20220208_1A
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Potency

Potency Analysis Date: 2/10/2022
Potency Batch ID: CAN_021022A
Potency Method: JAOAC 2015.1

Unit Potency:
30 ml retail unit
0.17 mg THC per 2.0 ml serving
6.66 mg CBD per 2.0 ml serving

3.33 mg/mL Total CBD
0.282%



0.0856 mg/mL Total THC
0.00725%

Samples: HDS-ZSN-SHW, GMG-HHM-BMT



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.012	48.4	0.0425	0.0696	0.0561	
THCA	Tetrahydrocannabinolic acid	0.012	3.51	0.0330	0.0342	0.0336	
CBD	Cannabidiol	0.012	3.41	0.817	0.845	0.831	
CBDA	Cannabidiolic acid	0.012	1.32	2.83	2.87	2.86	
Δ8THC	Delta-8 Tetrahydrocannabinol*	0.012	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.012	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.012	10.5	0.0212	0.0236	0.0224	
CBGA	Cannabigerolic acid*	0.012	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.012	12.1	0.0366	0.0413	0.0389	
CBCA	Cannabichromenic acid*	0.012	0.00	ND	ND	ND	
CBN	Cannabinol*	0.012	0.00	<LOQ	<LOQ	<LOQ	
Total THC	Δ9THC + (THCA × 0.877)		32.9	0.0715	0.0996	0.0856	
Total CBD	CBD + (CBDA × 0.877)		1.84	3.30	3.36	3.33	
Total			2.65	3.79	3.88	3.84	

Compliance

Pesticides	Within limits	Analysis Date: 2/10/2022	Pass 
Potency	Within limits	Analysis Date: 2/10/2022	Pass 


Aaron Troyer
Chief Science Officer



LS-220215-2

CBDA+-01

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

Harvest/Process Date: 1/17/2022
Sample Date: 2/8/2022
Analysis Date: 2/10/2022
Report Date: 2/15/2022
Report ID: LS-220215-2

Client Batch ID: CBDA+-01
Metrc Batch ID:
Metrc Sample ID:

Sample Type: Tinctures
Sample Plan:
MF-CN-CN-WZ_20220208_1A
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Potency Quality Control Data

Potency QC Analysis Date: 2/10/2022
Potency QC Batch ID: CAN_021022A

Method: JAOAC 2015.1
Unit: µg/g (ppm)

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Δ9THC	ND	0.012	22.3	21.0	106	80 - 120	
THCA	ND	0.012	22.5	21.4	105	80 - 120	
CBD	ND	0.012	25.5	23.0	111	80 - 120	
CBDA	ND	0.012	20.8	19.5	106	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

CBDA+-01

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


Harvest/Process Date: 1/17/2022
Sample Date: 2/8/2022
Analysis Date: 2/10/2022
Report Date: 2/15/2022
Report ID: LS-220215-2

Client Batch ID: CBDA+-01
Metric Batch ID:
Metric Sample ID:

Sample Type: Tinctures
Sample Plan:
MF-CN-CN-WZ_20220208_1A
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Pesticides Sample Data

Pesticides Analysis Date: 2/10/2022
Pesticides Batch IDs: PST_021022B_1,
PST_021022A_1

Unit: µg/g (ppm) Pass 

Method: AOAC 2007.01 & EN 15662

Analyte	HDS-ZSN-SHW	GMG-HHM-BMT	Limits	LOQ	Notes	Status	Analyte	HDS-ZSN-SHW	GMG-HHM-BMT	Limits	LOQ	Notes	Status
Abamectin	ND	ND	0.5	0.4		Pass	Metalaxyl	ND	ND	0.2	0.2		Pass
Acephate	ND	ND	0.4	0.2		Pass	Methiocarb	ND	ND	0.2	0.2		Pass
Acequinocyl	ND	ND	2.0	0.2		Pass	Methomyl	ND	ND	0.4	0.2		Pass
Acetamiprid	ND	ND	0.2	0.2		Pass	Methyl Parathion	ND	ND	0.2	0.2		Pass
Aldicarb	ND	ND	0.4	0.2		Pass	MGK-264	ND	ND	0.2	0.2		Pass
Azoxystrobin	ND	ND	0.2	0.2		Pass	Myclobutanil	ND	ND	0.2	0.2		Pass
Bifenazate	ND	ND	0.2	0.2		Pass	Naled	ND	ND	0.5	0.4		Pass
Bifenthrin	ND	ND	0.2	0.2		Pass	Oxamyl	ND	ND	1.0	0.2		Pass
Boscalid	ND	ND	0.4	0.2		Pass	Paclobutrazol	ND	ND	0.4	0.2		Pass
Carbaryl	ND	ND	0.2	0.2		Pass	Permethrins	ND	ND	0.2	0.2		Pass
Carbofuran	ND	ND	0.2	0.2		Pass	Phosmet	ND	ND	0.2	0.2		Pass
Chlorantraniliprole	ND	ND	0.2	0.2		Pass	Piperonyl Butoxide	ND	ND	2.0	0.2		Pass
Chlorfenapyr	ND	ND	1.0	1.0		Pass	Prallethrin	ND	ND	0.2	0.2		Pass
Chlorpyrifos	ND	ND	0.2	0.2		Pass	Propiconazole	ND	ND	0.4	0.2		Pass
Clofentezine	ND	ND	0.2	0.2		Pass	Propoxur	ND	ND	0.2	0.2		Pass
Cyfluthrin	ND	ND	1.0	1.0		Pass	Pyrethrins	ND	ND	1.0	1.0		Pass
Cypermethrin	ND	ND	1.0	1.0		Pass	Pyridaben	ND	ND	0.2	0.2		Pass
Daminozide	ND	ND	1.0	0.4		Pass	Spinosad	ND	ND	0.2	0.2		Pass
Diazinon	ND	ND	0.2	0.2		Pass	Spiromesifen	ND	ND	0.2	0.2		Pass
Dichlorvos (DDVP)	ND	ND	1.0	0.2		Pass	Spirotetramat	ND	ND	0.2	0.2		Pass
Dimethoate	ND	ND	0.2	0.2		Pass	Spiroxamine	ND	ND	0.4	0.2		Pass
Ethoprophos	ND	ND	0.2	0.2		Pass	Tebuconazole	ND	ND	0.4	0.2		Pass
Etofenprox	ND	ND	0.4	0.2		Pass	Thiacloprid	ND	ND	0.2	0.2		Pass
Etoxazole	ND	ND	0.2	0.2		Pass	Thiamethoxam	ND	ND	0.2	0.2		Pass
Fenoxycarb	ND	ND	0.2	0.2		Pass	Trifloxystrobin	ND	ND	0.2	0.2		Pass
Fenpyroximate	ND	ND	0.4	0.2		Pass							
Fipronil	ND	ND	0.4	0.2		Pass							
Flonicamid	ND	ND	1.0	0.2		Pass							
Fludioxonil	ND	ND	0.4	0.4		Pass							
Hexythiazox	ND	ND	1.0	0.2		Pass							
Imazalil	ND	ND	0.2	0.2		Pass							
Imidacloprid	ND	ND	0.4	0.2		Pass							
Kresoxim-methyl	ND	ND	0.4	0.4		Pass							
Malathion	ND	ND	0.2	0.2		Pass							

CBDA+-01

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

Harvest/Process Date: 1/17/2022
Sample Date: 2/8/2022
Analysis Date: 2/10/2022
Report Date: 2/15/2022
Report ID: LS-220215-2

Client Batch ID: CBDA+-01
Metrac Batch ID:
Metrac Sample ID:

Sample Type: Tinctures
Sample Plan:
MF-CN-CN-WZ_20220208_1A
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010



Pesticides Quality Control Data

Pesticides QC Analysis Date: 2/10/2022
Pesticides Batch ID: PST_021022A_1

Unit: µg/g (ppm)
Method: AOAC 2007.01 & EN 15662

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Methyl Parathion	ND	0.002	0.0617	0.0500	123	50 - 150	

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
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CBDA+-01

Danodan Hempworks
AG-R1058171HH
6019 NE MLK JR. BLVD.
PORTLAND, OR 97217
(503) 290-4079

Harvest/Process Date: 1/17/2022
Sample Date: 2/8/2022
Analysis Date: 2/10/2022
Report Date: 2/15/2022
Report ID: LS-220215-2

Client Batch ID: CBDA+-01
Metric Batch ID:
Metric Sample ID:

Sample Type: Tinctures
Sample Plan:
MF-CN-CN-WZ_20220208_1A
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Pesticides Quality Control Data

Pesticides QC Analysis Date: 2/10/2022
Pesticides Batch ID: PST_021022B_1

Unit: µg/g (ppm)
Method: AOAC 2007.01 & EN 15662

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes	Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Abamectin	ND	0.002	0.0599	0.0500	120	50 - 150		Metalaxyl	ND	0.002	0.0737	0.0500	147	50 - 150	
Acephate	ND	0.002	0.0653	0.0500	131	50 - 150		Methiocarb	ND	0.002	0.0729	0.0500	146	50 - 150	
Acequinocyl	ND	0.002	0.0605	0.0500	121	50 - 150		Methomyl	ND	0.002	0.0735	0.0500	147	50 - 150	
Acetamiprid	ND	0.002	0.0658	0.0500	132	50 - 150		MGK-264	ND	0.002	0.0648	0.0500	130	50 - 150	
Aldicarb	ND	0.002	0.0731	0.0500	146	50 - 150		Myclobutanil	ND	0.002	0.0688	0.0500	138	50 - 150	
Azoxystrobin	ND	0.002	0.0526	0.0500	105	50 - 150		Naled	ND	0.002	0.0601	0.0500	120	50 - 150	
Bifenazate	ND	0.002	0.195	0.0500	390	50 - 150	HB	Oxamyl	ND	0.002	0.0711	0.0500	142	50 - 150	
Bifenthrin	ND	0.002	0.0651	0.0500	130	50 - 150		Paclobutrazol	ND	0.002	0.0684	0.0500	137	50 - 150	
Boscalid	ND	0.002	0.0678	0.0500	136	50 - 150		Permethrins	ND	0.002	0.0596	0.0500	119	50 - 150	
Carbaryl	ND	0.002	0.0706	0.0500	141	50 - 150		Phosmet	ND	0.002	0.0680	0.0500	136	50 - 150	
Carbofuran	ND	0.002	0.0680	0.0500	136	50 - 150		Piperonyl Butoxide	ND	0.002	0.0661	0.0500	132	50 - 150	
Chlorantraniliprole	ND	0.002	0.0683	0.0500	137	50 - 150		Prallethrin	ND	0.002	0.0628	0.0500	126	50 - 150	
Chlorfenapyr	ND	0.002	0.0735	0.0500	147	50 - 150		Propiconazole	ND	0.002	0.0622	0.0500	124	50 - 150	
Chlorpyrifos	ND	0.002	0.0643	0.0500	129	50 - 150		Propoxur	ND	0.002	0.0667	0.0500	133	50 - 150	
Clofentezine	ND	0.002	0.0574	0.0500	115	50 - 150		Pyrethrins	ND	0.002	0.0640	0.0500	128	50 - 150	
Cyfluthrin	ND	0.002	0.0603	0.0500	121	50 - 150		Pyridaben	ND	0.002	0.0743	0.0500	149	50 - 150	
Cypermethrin	ND	0.002	0.0624	0.0500	125	50 - 150		Spinosad	ND	0.002	0.0595	0.0500	119	50 - 150	
Daminozide	ND	0.002	0.0630	0.0500	126	50 - 150		Spiromesifen	ND	0.002	0.0695	0.0500	139	50 - 150	
Diazinon	ND	0.002	0.0735	0.0500	147	50 - 150		Spirotetramat	ND	0.002	0.0737	0.0500	147	50 - 150	
Dichlorvos (DDVP)	ND	0.002	0.0565	0.0500	113	50 - 150		Spiroxamine	ND	0.002	0.0737	0.0500	147	50 - 150	
Dimethoate	ND	0.002	0.0729	0.0500	146	50 - 150		Tebuconazole	ND	0.002	0.0694	0.0500	139	50 - 150	
Ethoprophos	ND	0.002	0.0726	0.0500	145	50 - 150		Thiacloprid	ND	0.002	0.0701	0.0500	140	50 - 150	
Etofenprox	ND	0.002	0.0717	0.0500	143	50 - 150		Thiamethoxam	ND	0.002	0.0616	0.0500	123	50 - 150	
Etiozazole	ND	0.002	0.0611	0.0500	122	50 - 150		Trifloxystrobin	ND	0.002	0.0706	0.0500	141	50 - 150	
Fenoxycarb	ND	0.002	0.0653	0.0500	131	50 - 150									
Fenpyroximate	ND	0.002	0.0737	0.0500	147	50 - 150									
Fipronil	ND	0.002	0.0660	0.0500	132	50 - 150									
Flonicamid	ND	0.002	0.0576	0.0500	115	50 - 150									
Fludioxonil	ND	0.002	0.0624	0.0500	125	50 - 150									
Hexythiazox	ND	0.002	0.0668	0.0500	134	50 - 150									
Imazalil	ND	0.002	0.0722	0.0500	144	50 - 150									
Imidacloprid	ND	0.002	0.0630	0.0500	126	50 - 150									
Kresoxim-methyl	ND	0.002	0.0696	0.0500	139	50 - 150									
Malathion	ND	0.002	0.0713	0.0500	143	50 - 150									

CBDA+-01

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

Harvest/Process Date: 1/17/2022
Sample Date: 2/8/2022
Analysis Date: 2/10/2022
Report Date: 2/15/2022
Report ID: LS-220215-2

Client Batch ID: CBDA+-01
MetrC Batch ID:
MetrC Sample ID:

Sample Type: Tinctures
Sample Plan:
MF-CN-CN-WZ_20220208_1A
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