

April 01, 2022

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LeafLine Labs
8235 97th Street South
Cottage Grove, MN 55016

Work Order Number: 2201346

Enclosed are the results of analyses for samples received by the laboratory on 03/17/22 and tested per the requirements of the MDH Office of Medical Cannabis program. If there are any questions concerning this report, please feel free to contact me or the Quality Assurance Department.

Results are not blank corrected unless noted within the report.

The results in this report apply to the samples as received.

All samples will be retained by Legend Technical Services, Inc. unless consumed in the analysis, for 30 days from the date of this report and then returned, discarded, or retained per current agreement and in accordance with the requirements of LEGEND's Controlled Substance Program.

Prepared by,

LEGEND TECHNICAL SERVICES, INC.
Approved Testing Laboratory, MDH Office of Medical Cannabis
ISO/IEC 17025:2017 Accredited, A2LA Certificate 2950.01



Taylor Schertler
Administrative Manager Investigative Chemistry

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LeafLine Labs 8235 97th Street South Cottage Grove, MN 55016	LEGEND Project: Flower Products Project Manager:	Work Order #: 2201346 Date Reported: 04/01/22
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
40-02.11-26.21-R (2 Bags)	2201346-01	Flower	03/17/22 08:30	03/17/22 11:58
45-01.11-18.21-R (8 Bags)	2201346-02	Flower	03/17/22 08:30	03/17/22 11:58

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PERCENT MOISTURE
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
% Moisture	9.71	0.100		%	1	B2C1924	03/19/22	03/20/22	% calculation	
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
% Moisture	11.4	0.100		%	1	B2C1924	03/19/22	03/20/22	% calculation	

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TOTAL CANNABINOIDS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01RE3) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Average Total CBD	0.0288	0.00400		%	1	B2C2420	03/24/22	03/24/22	HPLC	
Average Total THC	12.4	0.00400		%	1	"	"	"	"	
Cannabidiol (CBD)	<0.00343	0.00343		%	1	B2C2325	03/22/22	03/23/22	"	
Cannabidiolic Acid (CBDA)	0.0317	0.00343		%	1	"	"	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.343	0.00343		%	1	"	"	"	"	
THCA-A	13.8	0.343		%	100	"	"	03/23/22	"	V3
Total CBD	0.0278	0.00345		% by Weight	1	[CALC]	"	03/23/22	"	
Total THC	12.5	0.305		% by Weight	100	"	"	03/23/22	"	
40-02.11-26.21-R (2 Bags) (2201346-01RE4) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Cannabidiol (CBD)	0.00405	0.00400		%	1	B2C2325	03/22/22	03/23/22	HPLC	
Cannabidiolic Acid (CBDA)	0.0260	0.00400		%	1	"	"	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.295	0.00400		%	1	"	"	"	"	
THCA-A	12.4	0.400		%	100	"	"	03/23/22	"	V3
Total CBD	0.0269	0.00751		% by Weight	1	[CALC]	"	03/23/22	"	
Total THC	11.2	0.355		% by Weight	100	"	"	03/23/22	"	
40-02.11-26.21-R (2 Bags) (2201346-01RE5) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Cannabidiol (CBD)	0.00461	0.00400		%	1	B2C2325	03/22/22	03/23/22	HPLC	
Cannabidiolic Acid (CBDA)	0.0309	0.00400		%	1	"	"	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.345	0.00400		%	1	"	"	"	"	
THCA-A	15.0	0.400		%	100	"	"	03/23/22	"	V3
Total CBD	0.0317	0.00751		% by Weight	1	[CALC]	"	03/23/22	"	
Total THC	13.5	0.355		% by Weight	100	"	"	03/23/22	"	
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Average Total CBD	0.0456	0.00400		%	1	B2C2328	03/23/22	03/23/22	HPLC	
Average Total THC	19.0	0.00400		%	1	"	"	"	"	
Cannabidiol (CBD)	0.00722	0.00354		%	1	B2C2220	03/22/22	03/22/22	"	
Cannabidiolic Acid (CBDA)	0.0432	0.00354		%	1	"	"	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.465	0.0354		%	10	"	"	"	"	
THCA-A	20.9	0.354		%	100	"	"	"	"	
Total CBD	0.0451	0.00855		% by Weight	1	[CALC]	"	"	"	
Total THC	18.8	0.348		% by Weight	100	"	"	"	"	
45-01.11-18.21-R (8 Bags) (2201346-02RE1) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Cannabidiol (CBD)	0.00799	0.00349		%	1	B2C2220	03/22/22	03/22/22	HPLC	
Cannabidiolic Acid (CBDA)	0.0446	0.00349		%	1	"	"	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.479	0.0349		%	10	"	"	"	"	
THCA-A	21.0	0.349		%	100	"	"	"	"	
Total CBD	0.0471	0.00856		% by Weight	1	[CALC]	"	"	"	
Total THC	18.9	0.341		% by Weight	100	"	"	"	"	

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TOTAL CANNABINOIDS
 Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
45-01.11-18.21-R (8 Bags) (2201346-02RE2) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Cannabidiol (CBD)	0.00644	0.00400		%	1	B2C2220	03/22/22	03/22/22	HPLC	
Cannabidiolic Acid (CBDA)	0.0435	0.00400		%	1	"	"	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.461	0.0400		%	10	"	"	"	"	
THCA-A	21.5	0.400		%	100	"	"	"	"	
Total CBD	0.0446	0.00751		% by Weight	1	[CALC]	"	"	"	
Total THC	19.3	0.301		% by Weight	100	"	"	"	"	

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TERPENES
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
(-)-Alpha-Bisabolol	0.023	0.0040	0.00088	% by Weight	1	B2C2402	03/24/22	03/25/22	EPA 8270E	
(-)-beta-Pinene	0.052	0.0040		% by Weight	1	"	"	"	"	
(-)-Guaial	<0.0040	0.0040		% by Weight	1	"	"	"	"	
(-)-Isopulegol	<0.0040	0.0040		% by Weight	1	"	"	"	"	
(R)-(+)-Limonene	0.042	0.0040	0.00075	% by Weight	1	"	"	"	"	
alpha-Humulene	0.015	0.0040	0.00029	% by Weight	1	"	"	"	"	
alpha-Pinene	0.029	0.0040	0.00052	% by Weight	1	"	"	"	"	
alpha-Terpinene	<0.020	0.020		% by Weight	1	"	"	"	"	
beta-Myrcene	0.080	0.0040	0.00031	% by Weight	1	"	"	"	"	
Camphene	<0.0040	0.0040		% by Weight	1	"	"	"	"	
delta-3-carene	0.020	0.010		% by Weight	1	"	"	"	"	
gamma-Terpinene	0.0054	0.0040		% by Weight	1	"	"	"	"	
Geraniol	<0.0040	0.0040	0.0012	% by Weight	1	"	"	"	"	
Linalool	0.0057	0.0040	0.00042	% by Weight	1	"	"	"	"	
Nerolidol	<0.0040	0.0040		% by Weight	1	"	"	"	"	
Ocimene	<0.0040	0.0040		% by Weight	1	"	"	"	"	
p-Isopropyltoluene (p-Cymene)	<0.010	0.010		% by Weight	1	"	"	"	"	
Terpinolene	0.12	0.0040	0.00047	% by Weight	1	"	"	"	"	
trans-Caryophyllene	0.041	0.0040	0.00049	% by Weight	1	"	"	"	"	
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
(-)-Alpha-Bisabolol	0.040	0.0040	0.00088	% by Weight	1	B2C2402	03/24/22	03/24/22	EPA 8270E	
(-)-beta-Pinene	0.025	0.0040		% by Weight	1	"	"	"	"	
(-)-Guaial	0.065	0.0040		% by Weight	1	"	"	"	"	
(-)-Isopulegol	<0.0040	0.0040		% by Weight	1	"	"	"	"	
(R)-(+)-Limonene	0.086	0.0040	0.00075	% by Weight	1	"	"	"	"	
alpha-Humulene	0.028	0.0040	0.00029	% by Weight	1	"	"	"	"	
alpha-Pinene	0.012	0.0040	0.00052	% by Weight	1	"	"	"	"	
alpha-Terpinene	<0.020	0.020		% by Weight	1	"	"	"	"	
beta-Myrcene	0.14	0.0040	0.00031	% by Weight	1	"	"	"	"	
Camphene	<0.0040	0.0040		% by Weight	1	"	"	"	"	
delta-3-carene	<0.010	0.010		% by Weight	1	"	"	"	"	
gamma-Terpinene	<0.0040	0.0040		% by Weight	1	"	"	"	"	
Geraniol	<0.0040	0.0040	0.0012	% by Weight	1	"	"	"	"	
Linalool	0.033	0.0040	0.00042	% by Weight	1	"	"	"	"	
Nerolidol	0.012	0.0040		% by Weight	1	"	"	"	"	
Ocimene	0.0059	0.0040		% by Weight	1	"	"	"	"	
p-Isopropyltoluene (p-Cymene)	<0.010	0.010		% by Weight	1	"	"	"	"	
Terpinolene	0.0058	0.0040	0.00047	% by Weight	1	"	"	"	"	
trans-Caryophyllene	0.095	0.0040	0.00049	% by Weight	1	"	"	"	"	

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AFLATOXINS
 Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Aflatoxin B1	<2.7	2.7		ng/g	1	B2C2517	03/25/22	03/29/22	LC-MS/MS	
Aflatoxin B2	<2.7	2.7		ng/g	1	"	"	"	"	
Aflatoxin G1	<2.7	2.7		ng/g	1	"	"	"	"	
Aflatoxin G2	<5.3	5.3		ng/g	1	"	"	"	"	
Ochratoxin A	<18	18		ng/g	1	"	"	"	"	L5a, V1
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Aflatoxin B1	<2.2	2.2		ng/g	1	B2C2517	03/25/22	03/29/22	LC-MS/MS	
Aflatoxin B2	<2.2	2.2		ng/g	1	"	"	"	"	
Aflatoxin G1	<2.2	2.2		ng/g	1	"	"	"	"	
Aflatoxin G2	<4.4	4.4		ng/g	1	"	"	"	"	
Ochratoxin A	<15	15		ng/g	1	"	"	"	"	L5a, V1

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PESTICIDES
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Pyrethrin I	<0.033	0.033		ug/g	1	B2C2423	03/24/22	03/26/22	LC-MS/MS	
Pyrethrin II	<0.017	0.017		ug/g	1	"	"	"	"	A-01
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Pyrethrin I	<0.040	0.040		ug/g	1	B2C2423	03/24/22	03/26/22	LC-MS/MS	
Pyrethrin II	<0.020	0.020		ug/g	1	"	"	"	"	A-01

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TOTAL METALS ANALYSIS
 Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Arsenic	<0.25	0.25	0.074	ug/g wet	1	B2C2413	03/24/22	03/24/22	EPA 6020B	L4, R6
Cadmium	<0.10	0.10	0.017	ug/g wet	1	"	"	"	"	
Lead	<0.10	0.10	0.016	ug/g wet	1	"	"	"	"	V1
Mercury	<0.10	0.10	0.016	ug/g wet	1	"	"	"	"	L4, V1
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Arsenic	<0.25	0.25	0.074	ug/g wet	1	B2C2413	03/24/22	03/24/22	EPA 6020B	L4, R6
Cadmium	<0.10	0.10	0.017	ug/g wet	1	"	"	"	"	
Lead	<0.10	0.10	0.016	ug/g wet	1	"	"	"	"	V1
Mercury	<0.10	0.10	0.016	ug/g wet	1	"	"	"	"	L4, V1

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MICRO ANALYSES
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Salmonella	<1.0	1.0		CFU/g	1	B2C2407	03/22/22	03/24/22	AOAC 2014.01	
Total Aerobic Bacteria	<250	250		CFU/g	1	B2C2406	03/22/22	03/24/22	AOAC 990.12	
Total Bile Tolerant Gram-Negative Bacteria	<150	150		CFU/g	1	"	"	03/23/22	AOAC 2003.01	
Total Coliform	<10	10		CFU/g	1	"	"	03/23/22	AOAC 991.14	
Total E.coli	<1.0	1.0		CFU/g	1	"	"	03/24/22	"	
Total Yeast and Mold	6000	1000		CFU/g	100	"	"	03/25/22	AOAC 997.02	
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Salmonella	<1.0	1.0		CFU/g	1	B2C2407	03/22/22	03/24/22	AOAC 2014.01	
Total Aerobic Bacteria	<250	250		CFU/g	1	B2C2406	03/22/22	03/24/22	AOAC 990.12	
Total Bile Tolerant Gram-Negative Bacteria	<150	150		CFU/g	1	"	"	03/23/22	AOAC 2003.01	
Total Coliform	<10	10		CFU/g	1	"	"	03/23/22	AOAC 991.14	
Total E.coli	<1.0	1.0		CFU/g	1	"	"	03/24/22	"	
Total Yeast and Mold	3000	1000		CFU/g	100	"	"	03/25/22	AOAC 997.02	

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WATER ACTIVITY
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
40-02.11-26.21-R (2 Bags) (2201346-01) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Water Activity	0.46	0.14		aW	1	B2C1923	03/19/22	03/20/22	NA	
45-01.11-18.21-R (8 Bags) (2201346-02) Flower Sampled: 03/17/22 08:30 Received: 03/17/22 11:58										
Water Activity	0.47	0.14		aW	1	B2C1923	03/19/22	03/20/22	NA	

Report Comments

Result potentially bias low due to high IS failure - N1

Notes and Definitions

- V3 CCV recovery was above method acceptance limits. This target analyte was detected in the sample, but the sample was not reanalyzed.
- V1 CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
- R6 LFB/LFBD (LCS/LCSD) RPD exceeded the method acceptance limit. Recoveries met acceptance criteria.
- QM-11 Spike recovery was outside of laboratory limits
- N1 See case narrative.
- M2 Matrix spike recovery was low, the associated blank spike recovery was acceptable.
- L5a The associated blank spike recovery was above laboratory/method acceptance limits. This analyte was not detected in the sample.
- L4 The associated blank spike recovery was below method acceptance limits.
- A-01 Reporting limit verification (RLV) recovery was outside of laboratory limits. This compounds was not detected in any of the associated samples.
- < Less than value listed
- RL Reporting Limit
- CFU/g Colony Forming Units per gram