

SUMMARY OF ANALYSIS (SAMPLE ID: SA40992)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 License: ADH 113	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Order ID: OR11580 Lot Number: M00065C13135030893 Production Run: 2093H20250312MUD-4	Sample Type: Primary Matrix: Flower Mass: 8g Date Collected: 05/05/2025 Date Received: 05/05/2025
Cultivar (Strain) or Sample Description: Mulberry Diesel			Date Completed: 05/07/2025

*This page is simply a summary of the analysis performed. For analytical details, please consult the individual Certificate(s) of Analysis for each of the specific test(s) performed. All contaminant action levels are referenced from the State of Arkansas MMJ testing guidelines.

*Where provided, statements of conformity (e.g. Pass/Fail) are made in accordance with ILAC G8, Binary Statement for Simple Acceptance Rule (w=0, AL=TL). PASS: when the result is within the acceptance interval. FAIL: when the result is outside the acceptance interval

Moisture Content (%)

9.80

Water Activity (aw)

0.373 @ 24.1°C

PASS/FAIL

PASS

Moisture content/water activity action levels are referenced from the State of Arkansas MMJ testing guidelines.

Moisture content levels less than 15% are recommended but the sample does not fail. Water activity levels must be less than 0.65aw.

Cannabinoids (Top 3)	(%)	mg/g
THCA	27.4	274
CBGA	1.51	15.1
Δ9-THC	0.295	2.95
TOTAL CBD	0.000	0.000
TOTAL THC	24.3	243
TOTAL CANNABINOIDS	29.6	296

Terpenes (Top 5)	(%)	ppm
d-Limonene	0.664	6640
β-Myrcene	0.538	5380
β-Caryophyllene	0.329	3290
Linalool	0.207	2070
α-Humulene	0.167	1670
TOTAL TERPENES	2.28	22800

Contaminants	PASS/FAIL
Heavy Metals:	PASS
Microbiology:	PASS
Pesticides:	PASS



Scan the QR code to verify results.

This information is provided as a service and makes no claims of efficacy and/or safety of this product.

Results are applicable only for the sample(s) analyzed and for the specific analysis conducted.

This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms.

The statements and results herein have not been approved and/or endorsed by the FDA.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology (F.A.S.T.), LLC

www.FASTLaboratories.com

F.A.S.T. Personnel perform sampling following the Sampling SOP (SOP-02).

Kyle W. Felling
Kyle W. Felling, Ph.D.
Laboratory Director



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA40992)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 License: ADH 113	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Order ID: OR11580 Lot Number: M00065C13135030893 Production Run: 2093H20250312MUD-4	Sample Type: Primary Matrix: Flower Mass: 8g Date Collected: 05/05/2025 Date Received: 05/05/2025
Cultivar (Strain) or Sample Description: Mulberry Diesel			Date Completed: 05/07/2025

CANNABINOID (POTENCY) PROFILE (SOP: SOP-CANN-001)

Analysis Date/Time: 05/06/2025 1222 **Method:** HPLC/DAD **Moisture Content (%):** 9.80
Analyst: PW **Instrument:** Agilent 1100 **Water Activity (aw):** 0.373 @ 24.1°C

<u>Cannabinoid</u>	<u>Result (%)</u>	<u>Result (mg/g)</u>	<u>LOD (mg/g)</u>	<u>LOQ (mg/g)</u>	<u>Result (mg/mL)</u>	<u>Per Serving (mg)</u>	<u>Per Unit (mg)</u>
CBC	ND	ND	0.0415	0.0969	-	0.000	0.000
CBCA	ND	ND	0.129	0.301	-	0.000	0.000
CBD	ND	ND	0.293	0.684	-	0.000	0.000
CBDV	ND	ND	0.108	0.252	-	0.000	0.000
CBDVA	ND	ND	0.0470	0.110	-	0.000	0.000
CBDVA	ND	ND	0.125	0.292	-	0.000	0.000
CBG	0.239	2.39	0.190	0.444	-	2.16	2.16
CBGA	1.51	15.1	0.270	0.318	-	13.6	13.6
CBL	ND	ND	0.220	0.513	-	0.000	0.000
CBN	ND	ND	0.101	0.236	-	0.000	0.000
CBNA	ND	ND	0.109	0.254	-	0.000	0.000
Δ9-THC	0.295	2.95	0.121	0.282	-	2.66	2.66
Δ8-THC	ND	ND	0.189	0.440	-	0.000	0.000
THCA	27.4	274	0.0656	0.153	-	247	247
THCV	ND	ND	0.157	0.367	-	0.000	0.000
THCVA	0.191	1.91	0.0503	0.117	-	1.72	1.72
TOTAL	29.6	296				267	267
TOTAL CBC	0.000	0.000				0.000	0.000
TOTAL CBD	0.000	0.000				0.000	0.000
TOTAL CBDV	0.000	0.000				0.000	0.000
TOTAL CBG	1.56	15.6				14.1	14.1
TOTAL CBN	0.000	0.000				0.000	0.000
TOTAL THC	24.3	243				219	219
TOTAL THCV	0.165	1.65				1.49	1.49



SERVING MASS (g): 1.00
SERVINGS/UNIT: 1

"-" Not reported for this sample.

Deviations from standard operating procedure:
None

Recoveries for all analyte standards: 90-110%
Replicate Uncertainties: <5% RSD, <20% RPD
Sample/Reagent Blanks: <RL for all analytes

Values for plant matter are adjusted for moisture content.
Dry percent = Wet percent / (1-(Moisture Content/100))

Total CBC = (CBCA x 0.877) + CBC
Total CBD = (CBDV x 0.877) + CBD
Total CBDV = (CBDVA x 0.867) + CBDV
Total CBG = (CBGA x 0.878) + CBG
Total CBN = (CBNA x 0.876) + CBN
Total THC = (THCA x 0.877) + Δ9-THC
Total THCV = (THCVA x 0.867) + THCVA

Percentage results are reported by mass.

mg/g results are reported as mass component per mass material.

Abbreviations: DAD - Diode Array Detector, HPLC - High Pressure Liquid Chromatography, RL - Reporting Limit, RPD - Relative Percent Difference, RSD - Relative Standard Deviation, DET - Detected (less than LOQ), LOD - Limit of Detection, LOQ - Limit of Quantitation, ND - Not Detected (less than LOD)

This information is provided as a service and makes no claims of efficacy and/or safety of this product. Results are applicable only for the sample(s) analyzed and for the specific analysis conducted. This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms.

The statements and results herein have not been approved and/or endorsed by the FDA.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology (F.A.S.T.), LLC

www.FASTLaboratories.com

F.A.S.T. Personnel perform sampling following the Sampling SOP (SOP-02).

Kyle W. Felling
Kyle W. Felling, Ph.D.
Laboratory Director



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA40992)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 License: ADH 113	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Order ID: OR11580 Lot Number: M00065C13135030893 Production Run: 2093H20250312MUD-4	Sample Type: Primary Matrix: Flower Mass: 8g Date Collected: 05/05/2025 Date Received: 05/05/2025
--	---	--	--

Cultivar (Strain) or Sample Description: Mulberry Diesel **Date Completed:** 05/07/2025

TERPENOID PROFILE

Analysis Date/Time: 05/06/2025 1230
Analyst: KF

Method: GC/MS
Instrument: Agilent 7890/5975

Deviations from SOP:
None

<u>Terpene</u>	<u>Result (ppm)</u>	<u>Result (%)</u>	
α-Bisabolol	98.9	0.00989	
Camphene	172	0.0172	
δ-3-Carene	ND	-	
β-Caryophyllene	3290	0.329	█
Caryophyllene oxide	70.3	0.00703	
p-Cymene	<LOQ	-	
Eucalyptol	ND	-	
Geraniol	71.9	0.00719	
Guaiol	ND	-	
α-Humulene	1670	0.167	█
Isopulegol	ND	-	
d-Limonene	6640	0.664	█
Linalool	2070	0.207	█
β-Myrcene	5380	0.538	█
cis-Nerolidol	616	0.0616	
trans-Nerolidol	685	0.0685	
α-Ocimene	64.4	0.00644	
β-Ocimene	114	0.0114	
α-Pinene	569	0.0569	
β-Pinene	1150	0.115	█
α-Terpinene	ND	-	
γ-Terpinene	ND	-	
Terpinolene	92.5	0.00925	
TOTAL	22800	2.28	



Abbreviations: GC - Gas Chromatography, MS - Mass Spectrometry, RL - Reporting Limit
Abbreviations: ND - Not Detected, LOD - Limit of Detection, LOQ - Limit of Quantitation

This information is provided as a service and makes no claims of efficacy and/or safety of this product.

Results are applicable only for the sample(s) analyzed and for the specific analysis conducted.

This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms.

The statements and results herein have not been approved and/or endorsed by the FDA.

Reporting Limit (ppm): 45.5

"-" Not detected above LOD.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology (F.A.S.T.), LLC

www.FASTLaboratories.com

Kyle W. Felling
Kyle W. Felling, Ph.D.
Laboratory Director



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA40992)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 License: ADH 113	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Order ID: OR11580 Lot Number: M00065C13135030893 Production Run: 2093H20250312MUD-4	Sample Type: Primary Matrix: Flower Mass: 8g Date Collected: 05/05/2025 Date Received: 05/05/2025
--	---	--	--

Cultivar (Strain) or Sample Description: Mulberry Diesel **Date Completed:** 05/07/2025

PESTICIDES PROFILE (SOP: SOP-PEST-001)

Analysis Date/Time: 05/06/2025 1253
Analyst: KF

Method: LC/MS/MS
Instrument: Shimadzu LC-8050

Deviations from SOP:
None

Pesticide	Result (ppm)	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Pesticide	Result (ppm)	LOD (ppm)	LOQ (ppm)	Action Level (ppm)
Abamectin (71751-41-2)	-	0.0452	0.362	0.5	Kresoxim-methyl (143390-89-0)	-	0.0452	0.362	0.4
Acephate (30560-19-1)	-	0.0452	0.362	0.4	Malathion (121-75-5)	-	0.0452	0.362	0.2
Acetaminocyl (57960-19-7)	-	0.0452	0.362	2	Metalaxyl (57837-19-1)	-	0.0452	0.362	0.2
Acetamiprid (135410-20-7)	-	0.0452	0.362	0.2	Methiocarb (2032-65-7)	-	0.0452	0.362	0.2
Aldicarb (116-06-3)	-	0.0452	0.362	0.4	Methomyl (16752-77-5)	-	0.0452	0.362	0.4
Azoxystrobin (131860-33-8)	-	0.0452	0.362	0.2	Methyl parathion (298-0-0)	-	0.0452	0.362	0.2
Bifenazate (149877-41-8)	-	0.0452	0.362	0.2	MGK 264 (113-48-4)	-	0.0452	0.362	0.2
Bifenthrin (82657-04-3)	-	0.0452	0.362	0.2	Myclobutanil (88671-89-0)	-	0.0452	0.362	0.2
Boscalid (188425-85-6)	-	0.0452	0.362	0.4	Naled (300-76-5)	-	0.0452	0.362	0.5
Carbaryl (63-25-2)	-	0.0452	0.362	0.2	Oxamyl (23135-22-0)	-	0.0452	0.362	1
Carbofuran (1563-66-2)	-	0.0452	0.362	0.2	Pacllobutrazol (76738-62-0)	-	0.0452	0.362	0.4
Chlorantraniliprole (800008-45-7)	-	0.0452	0.362	0.2	Permethrins (52645-53-1)	-	0.0452	0.362	0.2
Chlorfenapyr (122453-73-0)	-	0.0452	0.362	1	Phosmet (732-11-6)	-	0.0452	0.362	0.2
Chlorpyrifos (2921-88-2)	-	0.0452	0.362	0.2	Piperonyl butoxide (51-03-6)	-	0.0452	0.362	2
Clofentezine (74115-24-5)	-	0.0452	0.362	0.2	Prallethrins (2331-36-9)	-	0.0452	0.362	0.2
Cyfluthrin (68359-37-5)	-	0.0452	0.362	1	Propiconazole (60207-90-1))	-	0.0452	0.362	0.4
Cypermethrin (52315-07-8)	-	0.0452	0.362	1	Propoxur (114-26-1)	-	0.0452	0.362	0.2
Daminozide (1596-84-5)	-	0.0452	0.362	1	Pyrethrins (8003-34-7)	-	0.0452	0.362	1
DDVP (62-73-7)	-	0.0452	0.362	0.1	Pyridaben (96489-71-3)	-	0.0452	0.362	0.2
Diazinon (333-41-5)	-	0.0452	0.362	0.2	Spinosad (168316-95-8)	-	0.0452	0.362	0.2
Dimethoate (60-51-5)	-	0.0452	0.362	0.2	Spiromesifen (283594-90-1)	-	0.0452	0.362	0.2
Ethoprophos (13194-48-4)	-	0.0452	0.362	0.2	Spirotetramat (203313-25-1)	-	0.0452	0.362	0.2
Etofenprox (80844-07-1)	-	0.0452	0.362	0.4	Spiroxamine (118134-30-8)	-	0.0452	0.362	0.4
Etoxazole (153233-91-1)	-	0.0452	0.362	0.2	Tebuconazole (80443-41-0)	-	0.0452	0.362	0.4
Fenoxycarb (72490-01-8)	-	0.0452	0.362	0.2	Thiacloprid (111988-49-9)	-	0.0452	0.362	0.2
(E)-Fenpyroximate (134098-61-6)	-	0.0452	0.362	0.4	Thiamethoxam (153719-23-4)	-	0.0452	0.362	0.2
Fipronil (120068-37-3)	-	0.0452	0.362	0.4	Trifloxystrobin (141517-21-7)	-	0.0452	0.362	0.2
Fonicamid (158062-67-0)	-	0.0452	0.362	1					
Fludioxinil (131341-86-1)	-	0.0452	0.362	0.4					
Hexythiazox (78587-05-0)	-	0.0452	0.362	1					
Imazalil (35554-44-0)	-	0.0452	0.362	0.2					
Imidacloprid (138261-41-3)	-	0.0452	0.362	0.4					



Color Key

RESULT < AL
RESULT > AL

"DET" detected less than LOQ
"-." not detected above LOD
Permethrins measured as the cumulative residue of the *cis*- and *trans*- permethrin isomers.
Pyrethrins measured as the cumulative residue of the pyrethrin I, cinerin I, and jasmolin I isomers.

Action levels are referenced from the State of Arkansas MMJ testing guidelines.
A value of "-" for the action level means that analyte is not currently regulated by the regulations referenced above.

Disclaimer: This information is provided as a service and makes no claims of efficacy and/or safety of this product. Results are applicable only for the sample(s) analyzed and for the specific analysis conducted. This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms. The statements and results herein have not been approved and/or endorsed by the FDA.

Abbreviations: LC - Liquid Chromatography, MS - Mass Spectrometry, RL - Reporting Limit, AL - Action Level, CAS - Chemical Abstract Services, LOD - Limit of Detection, LOQ - Limit of Quantification

Pesticide	Synonym(s)	Pesticide	Synonym(s)	Pesticide	Synonym(s)
Cyfluthrin	Baythroid	Myclobutanil	Sythane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Felling Analytical Services and Technology (F.A.S.T.), LLC

www.FASTLaboratories.com

F.A.S.T. Personnel perform sampling following the Sampling SOP (SOP-02).

Kyle W. Felling
Kyle W. Felling, Ph.D.
Laboratory Director



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA40992)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 License: ADH 113	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Order ID: OR11580 Lot Number: M00065C13135030893 Production Run: 2093H20250312MUD-4	Sample Type: Primary Matrix: Flower Mass: 8g Date Collected: 05/05/2025 Date Received: 05/05/2025
Cultivar (Strain) or Sample Description: Mulberry Diesel			Date Completed: 05/07/2025

HEAVY METAL PROFILE (SOP: SOP-ICP-200.6)

Analysis Date/Time: 05/06/2025 1238 **Method:** ICP/MS **Deviations from SOP:** None
Analyst: KF **Instrument:** Agilent 7700x

<u>Heavy Metal</u>	<u>Result (ppb)</u>	<u>LOD (ppb)</u>	<u>LOQ (ppb)</u>	<u>Action Level (ppb)</u>
Arsenic (As)	ND	59.1	93.6	200
Cadmium (Cd)	ND	59.1	93.6	200
Lead (Pb)	ND	59.1	93.6	500
Mercury (Hg)	ND	59.1	93.6	100



Abbreviations: ICP - Inductively-Coupled Plasma, MS - Mass Spectrometry,
 RL - Reporting Limit, AL - Action Level, LOD - Limit of Detection, LOQ - Limit of Quantitation

Color Key

RESULT < AL
RESULT > AL

"DET" detected less than LOQ

"ND" not detected above LOD

Reporting limit is 1/2 the action level of each analyte.

Action levels for heavy metals are referenced from the State of Arkansas MMJ testing guidelines.

Disclaimer: This information is provided as a service and makes no claims of efficacy and/or safety of this product. Results are applicable only for the sample(s) analyzed and for the specific analysis conducted. This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms. The statements and results herein have not been approved and/or endorsed by the FDA.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of
 Felling Analytical Services and Technology (F.A.S.T.), LLC

www.FASTLaboratories.com

F.A.S.T. Personnel perform sampling following the Sampling SOP (SOP-02).

Kyle W. Felling
 Kyle W. Felling, Ph.D.
 Laboratory Director



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA40992)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 -	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Sample ID: SA40992 Lot Number: M00065C13135030893 Production Run: 2093H20250312MUD-4	Sample Type: Primary Matrix: Flower Mass: 8g Date Collected: 05/05/2025 Date Received: 05/05/2025
Cultivar (Strain) or Sample Description: Mulberry Diesel			Date Completed: 05/07/2025

MICROBIOLOGICAL PROFILE (SOP: SOP-Micro-001)

Analysis Date/Time: 05/07/2025 0545 **Method:** Hardy Diagnostics CompactDry **Deviations from SOP:**
Analyst: PW **Instrument:** Thermo Incubator None

<u>Bacteria/Microbe</u>	<u>Result (CFU/g)</u>	<u>Action Level (CFU/g)</u>
Aerobic Plate Count	NT	-
Coliforms, Total	Absent	1
Escherichia Coli (E. Coli)	Absent	100
Mold/Yeast	NT	-
Pseudomonas aeruginosa	NT	-
Salmonella spp.	NT	-
Staphylococcus aureus	NT	-



Abbreviations: EC - Escherichia Coli, CFU - Colony-Forming Unit, RL - Reporting Limit, AL - Action Level, TNTC - Too Numerous To Count, NT - Not Tested
 Absent - Not Detected Above RL, Present - Detected Above RL

Color Key

RESULT < AL

RESULT > AL

Reporting Limit (CFU/g)
1

Action levels for microbiology are referenced from the State of Arkansas MMJ testing guidelines.
 A value of "-" for the action level means that analyte is not currently regulated by the regulations referenced above.

Disclaimer: This information is provided as a service and makes no claims of efficacy and/or safety of this product. Results are applicable only for the sample(s) analyzed and for the specific analysis conducted. This report is for informational purposes only and should not be used to diagnose, treat, or prevent any medical-related symptoms. The statements and results herein have not been approved and/or endorsed by the FDA.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of
 Felling Analytical Services and Technology (F.A.S.T.), LLC

www.FASTLaboratories.com

F.A.S.T. Personnel perform sampling following the Sampling SOP (SOP-02).

Kyle W. Felling
 Kyle W. Felling, Ph.D.
 Laboratory Director

