

SUMMARY OF ANALYSIS (SAMPLE ID: SA32486)

Testing Location:	Customer ID: 2161	Order ID: OR10043	Sample Type: Primary
Arkansas	River Valley Relief Cultivation	Lot Number:	Matrix: Flower
232 S. Broadview St.	5601 Old Greenwood Rd Suite C	M00065C13139401504	Mass: 17.00g
Greenbrier, AR 72058	Fort Smith, AR 72903	Production Run:	Date Collected: 09/21/2022
License: ADH 113	License: 00065C	1008H20220812LCB1	Date Received: 09/22/2022
Cultivar (Strain) or Sample Description: Log Cabin			Date Completed: 09/25/2022

*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.

Moisture Content (%)

12.4

Water Activity (aw)

0.504 @ 23.7°C

PASS/FAIL

PASS

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

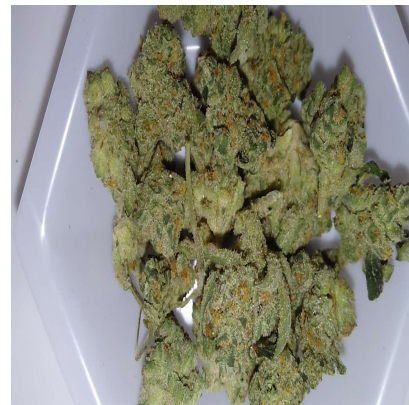
Moisture content levels less than 15% are recommended but the sample does not fail. Water activity levels must be less than 0.65aw.

Cannabinoids (Top 3)	(%)	mg/g
THCA	23.6	236
CBGA	1.44	14.4
CBG	0.312	3.12
TOTAL CBD	-	-
TOTAL THC	21.0	210
TOTAL CANNABINOIDS	25.8	258

Terpenes (Top 5)	(%)	µg/g
d-Limonene	0.529	5290
β-Caryophyllene	0.221	2210
Linalool	0.215	2150
β-Pinene	0.157	1570
α-Pinene	0.144	1440
TOTAL TERPENES	1.63	16300

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

Sample Picture Upon Receipt



Scan the QR code to verify results.

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

www.FASTLaboratories.com



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

Analysis Date/Time: 9/23/2022 2036

Method: HPLC/DAD

Moisture Content (%): 12.4

Analyst: PW

Instrument: Agilent 1100

Water Activity (aw): 0.504 @ 23.74°C

<u>Cannabinoid</u>	<u>Result</u> (%)	<u>UM</u> (+/-%)	<u>Result</u> (mg/g)	<u>LOQ</u> (mg/g)	<u>Result</u> (mg/mL)	<u>Per</u> <u>Serving</u> (mg)	<u>Per</u> <u>Unit</u> (mg)
CBC	-	-	-	0.261	-	-	-
CBCA	-	-	-	0.261	-	-	-
CBD	-	-	-	0.261	-	-	-
CBDA	DET	-	DET	0.261	-	-	-
CBDV	-	-	-	0.261	-	-	-
CBDVA	-	-	-	0.261	-	-	-
CBG	0.312	0.0406	3.12	0.261	-	3.12	3.12
CBGA	1.44	0.158	14.4	0.261	-	14.4	14.4
CBL	-	-	-	0.261	-	-	-
CBN	-	-	-	0.261	-	-	-
CBNA	-	-	-	0.261	-	-	-
Δ9-THC	0.290	0.0493	2.90	0.261	-	2.90	2.90
Δ8-THC	-	-	-	0.261	-	-	-
THCA	23.6	2.36	236	0.261	-	236	236
THCV	-	-	-	0.261	-	-	-
THCVA	0.221	0.0111	2.21	0.261	-	2.21	2.21
TOTAL	25.8	2.62	258		-	258	258
TOTAL CBC	-	-	-		-	-	-
TOTAL CBD	-	-	-		-	-	-
TOTAL CBDV	-	-	-		-	-	-
TOTAL CBG	1.57	0.179	15.7		-	15.7	15.7
TOTAL CBN	-	-	-		-	-	-
TOTAL THC	21.0	2.12	210		-	210	210
TOTAL THCV	0.192	0.00958	1.92		-	1.92	1.92



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

"-" Not detected above LOD.

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.

Total CBC = (CBCA x 0.877) + CBC
Total CBD = (CBDA 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) + THCV

Percentage results are reported by mass.

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

* CBCA, CBDVA, CBL, CBNA, and THCVA are in process of being added to our accreditation scope.

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,
UM - Measurement Uncertainty

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TERPENOID PROFILE

Analysis Date/Time: 09/24/2022 1541

Analyst: KF

Method: GC/MS

Instrument: Agilent 7890/5975

Deviations from SOP:

None

Terpene	Result (µg/g)	Result (%)	
α-Bisabolol	469	0.0469	
Camphene	244	0.0244	
δ-3-Carene	-	-	
β-Caryophyllene	2210	0.221	
Caryophyllene oxide	113	0.0113	
p-Cymene	-	-	
Eucalyptol	-	-	
Geraniol	293	0.0293	
Guaiol	-	-	
α-Humulene	696	0.0696	
Isopulegol	-	-	
d-Limonene	5290	0.529	
Linalool	2150	0.215	
β-Myrcene	897	0.0897	
cis-Nerolidol	298	0.0298	
trans-Nerolidol	214	0.0214	
α-Ocimene	359	0.0359	
β-Ocimene	-	-	
α-Pinene	1440	0.144	
β-Pinene	1570	0.157	
α-Terpinene	-	-	
γ-Terpinene	-	-	
Terpinolene	65.0	0.00650	
TOTAL	16300	1.63	



Abbreviations: GC - Gas Chromatography, MS - Mass Spectrometry, RL - Reporting Limit

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"-" Not detected above RL.

Reporting Limit (µg/g): 17.3

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PESTICIDES PROFILE (SOP: SOP-PEST-001)

Analysis Date/Time: 09/23/2022 2209

Analyst: KF

Method: LC/MS/MS

Instrument: Shimadzu LC-8050

Deviations from SOP:

None

Pesticide	Result (µg/g)	LOD (µg/g)	LOQ (µg/g)	Action Level (µg/g)	Pesticide	Result (µg/g)	LOD (µg/g)	LOQ (µg/g)	Action Level (µg/g)
Abamectin (71751-41-2)	-	0.0173	0.138	0.5	Kresoxim-methyl (143390-89-0)	-	0.0173	0.138	0.4
Acephate (30560-19-1)	-	0.0173	0.138	0.4	Malathion (121-75-5)	-	0.0173	0.138	0.2
Acetaminophen (57960-19-7)	-	0.0173	0.138	2	Metalaxyl (57837-19-1)	-	0.0173	0.138	0.2
Acetamiprid (135410-20-7)	-	0.0173	0.138	0.2	Methiocarb (2032-65-7)	-	0.0173	0.138	0.2
Aldicarb (116-06-3)	-	0.0173	0.138	0.4	Methomyl (16752-77-5)	-	0.0173	0.138	0.4
Azoxystrobin (131860-33-8)	-	0.0173	0.138	0.2	Methyl parathion (298-0-0)	-	0.0173	0.138	0.2
Bifenazate (149877-41-8)	-	0.0173	0.138	0.2	MGK 264 (113-48-4)	-	0.0173	0.138	0.2
Bifenthrin (82657-04-3)	-	0.0173	0.138	0.2	Myclobutanil (88671-89-0)	-	0.0173	0.138	0.2
Boscalid (188425-85-6)	-	0.0173	0.138	0.4	Naled (300-76-5)	-	0.0173	0.138	0.5
Carbaryl (63-25-2)	-	0.0173	0.138	0.2	Oxamyl (23135-22-0)	-	0.0173	0.138	1
Carbofuran (1563-66-2)	-	0.0173	0.138	0.2	Paclobutrazol (76738-62-0)	-	0.0173	0.138	0.4
Chlorantraniliprole (800008-45-7)	-	0.0173	0.138	0.2	Permethrins (52645-53-1)	-	0.0173	0.138	0.2
Chlorfenapyr (122453-73-0)	-	0.0173	0.138	1	Phosmet (732-11-6)	-	0.0173	0.138	0.2
Chlorpyrifos (2921-88-2)	-	0.0173	0.138	0.2	Piperonyl butoxide (51-03-6)	DET	0.0173	0.138	2
Clofentezine (74115-24-5)	-	0.0173	0.138	0.2	Prallethrin (2331-36-9)	-	0.0173	0.138	0.2
Cyfluthrin (68359-37-5)	-	0.0173	0.138	1	Propiconazole (60207-90-1)	-	0.0173	0.138	0.4
Cypermethrin (52315-07-8)	-	0.0173	0.138	1	Propoxur (114-26-1)	-	0.0173	0.138	0.2
Daminozide (1596-84-5)	-	0.0173	0.138	1	Pyrethrins (8003-34-7)	-	0.0173	0.138	1
DDVP (62-73-7)	-	0.0173	0.138	0.1	Pyridaben (96489-71-3)	-	0.0173	0.138	0.2
Diazinon (333-41-5)	-	0.0173	0.138	0.2	Spinosad (168316-95-8)	-	0.0173	0.138	0.2
Dimethoate (60-51-5)	-	0.0173	0.138	0.2	Spiromesifen (283594-90-1)	-	0.0173	0.138	0.2
Ethoprophos (13194-48-4)	-	0.0173	0.138	0.2	Spirotetramat (203313-25-1)	-	0.0173	0.138	0.2
Etofenprox (80844-07-1)	-	0.0173	0.138	0.4	Spiroxamine (118134-30-8)	-	0.0173	0.138	0.4
Etoxazole (153233-91-1)	-	0.0173	0.138	0.2	Tebuconazole (80443-41-0)	-	0.0173	0.138	0.4
Fenoxycarb (72490-01-8)	-	0.0173	0.138	0.2	Thiacloprid (111988-49-9)	-	0.0173	0.138	0.2
(E)-Fenpyroximate (134098-61-6)	-	0.0173	0.138	0.4	Thiamethoxam (153719-23-4)	-	0.0173	0.138	0.2
Fipronil (120068-37-3)	-	0.0173	0.138	0.4	Trifloxystrobin (141517-21-7)	-	0.0173	0.138	0.2
Flonicamid (158062-67-0)	-	0.0173	0.138	1					
Fludioxinil (131341-86-1)	-	0.0173	0.138	0.4					
Hexythiazox (78587-05-0)	-	0.0173	0.138	1					
Imazalil (35554-44-0)	-	0.0173	0.138	0.2					
Imidacloprid (138261-41-3)	-	0.0173	0.138	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.

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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	Systhane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		

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HEAVY METAL PROFILE (SOP: SOP-ICP-200.7)

Analysis Date/Time: 09/23/2022 0753 (ICP/OES)	Method: ICP/OES	Deviations from SOP:
Analysis Date/Time: - (DMA)	Instrument: Agilent 720-ES	None
Analyst: KF		

Heavy Metal	Result (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Action Level (µg/kg)
Arsenic (As)	-	59.2	93.7	200
Cadmium (Cd)	-	59.2	93.7	200
Lead (Pb)	-	59.2	93.7	500
Mercury (Hg)	-	59.2	93.7	100



Abbreviations: ICP - Inductively-Coupled Plasma, OES - Optical Emission Spectroscopy,
DMA - Direct Mercury Analyzer, 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

"-" not detected above LOD

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

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MICROBIOLOGICAL PROFILE (SOP: SOP-Micro-001)

Analysis Date/Time: 20220923 1310	Method: Hardy Diagnostics CompactDry	Deviations from SOP:
Analyst: PW	Instrument: Thermo Incubator	None

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

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