

SUMMARY OF ANALYSIS (SAMPLE ID: SA38443)

Testing Location:	Customer ID: 2161	Order ID: OR11111	Sample Type: Primary
Arkansas	River Valley Relief Cultivation	Lot Number:	Matrix: Flower
232 S. Broadview St.	5601 Old Greenwood Rd Suite C	M00065C13138189660	Mass: 23g
Greenbrier, AR 72058	Fort Smith, AR 72903	Production Run:	Date Collected: 07/22/2024
License: ADH 113	License: 00065C	6069H20240709SMC-1	Date Received: 07/23/2024
Cultivar (Strain) or Sample Description: SunMac			Date Completed: 07/24/2024

*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 (%)

10.1

Water Activity (aw)

0.442 @ 24.3°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	32.8	328
CBGA	2.44	24.4
THCVA	0.101	1.01
TOTAL CBD	-	-
TOTAL THC	28.8	288
TOTAL CANNABINOIDS	35.5	355

Terpenes (Top 5)	(%)	µg/g
β-Caryophyllene	0.826	8260
d-Limonene	0.651	6510
Linalool	0.415	4150
α-Humulene	0.330	3300
β-Pinene	0.120	1200
TOTAL TERPENES	2.54	25400

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



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

Analysis Date/Time: 07/23/2024 1420

Method: HPLC/DAD

Moisture Content (%): 10.1

Analyst: PW

Instrument: Agilent 1100

Water Activity (aw): 0.442 @ 24.3°C

<u>Cannabinoid</u>	<u>Result</u> (%)	<u>Result</u> (mg/g)	<u>LOD</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	ND	ND	0.0450	0.105	-	-	-
CBCA	ND	ND	0.140	0.326	-	-	-
CBD	ND	ND	0.317	0.741	-	-	-
CBDV	ND	ND	0.117	0.273	-	-	-
CBDVA	ND	ND	0.136	0.317	-	-	-
CBG	0.0685	0.685	0.206	0.481	-	0.616	0.616
CBGA	2.44	24.4	0.292	0.344	-	22.0	22.0
CBL	ND	ND	0.238	0.556	-	-	-
CBN	ND	ND	0.109	0.255	-	-	-
CBNA	ND	ND	0.118	0.275	-	-	-
Δ9-THC	ND	ND	0.131	0.305	-	-	-
Δ8-THC	ND	ND	0.204	0.477	-	-	-
THCA	32.8	328	0.0710	0.166	-	295	295
THCV	ND	ND	0.170	0.397	-	-	-
THCVA	0.101	1.01	0.0544	0.127	-	0.910	0.910
TOTAL	35.5	355			-	319	319
TOTAL CBC	-	-			-	-	-
TOTAL CBD	-	-			-	-	-
TOTAL CBDV	-	-			-	-	-
TOTAL CBG	2.22	22.2			-	19.9	19.9
TOTAL CBN	-	-			-	-	-
TOTAL THC	28.8	288			-	259	259
TOTAL THCV	0.0878	0.878			-	0.789	0.789



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 = (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) + THCV

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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Percentage results are reported by mass.

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

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TERPENOID PROFILE

Analysis Date/Time: 07/23/2024 1903
Analyst: KF

Method: GC/MS
Instrument: Agilent 7890/5975

Deviations from SOP:
None

Terpene	Result (µg/g)	Result (%)	
α-Bisabolol	86.8	0.00868	
Camphene	192	0.0192	
δ-3-Carene	ND	-	
β-Caryophyllene	8260	0.826	█
Caryophyllene oxide	204	0.0204	
p-Cymene	ND	-	
Eucalyptol	ND	-	
Geraniol	161	0.0161	
Guaiol	ND	-	
α-Humulene	3300	0.330	█
Isopulegol	50.9	0.00509	
d-Limonene	6510	0.651	█
Linalool	4150	0.415	█
β-Myrcene	428	0.0428	
cis-Nerolidol	ND	-	
trans-Nerolidol	<LOQ	-	
α-Ocimene	86.3	0.00863	
β-Ocimene	<LOQ	-	
α-Pinene	677	0.0677	
β-Pinene	1200	0.120	█
α-Terpinene	ND	-	
γ-Terpinene	ND	-	
Terpinolene	80.1	0.00801	
TOTAL	25400	2.54	



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

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Reporting Limit (µg/g): 49.3

"-" Not detected above LOD.

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PESTICIDES PROFILE (SOP: SOP-PEST-001)

Analysis Date/Time: 07/23/2024 1520

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)	-	0.0491	0.393	0.5	Kresoxim-methyl (143390-89-0)	-	0.0491	0.393	0.4
Acephate (30560-19-1)	-	0.0491	0.393	0.4	Malathion (121-75-5)	-	0.0491	0.393	0.2
Acetaminophen (57960-19-7)	-	0.0491	0.393	2	Metalaxyl (57837-19-1)	-	0.0491	0.393	0.2
Acetamiprid (135410-20-7)	-	0.0491	0.393	0.2	Methiocarb (2032-65-7)	-	0.0491	0.393	0.2
Aldicarb (116-06-3)	-	0.0491	0.393	0.4	Methomyl (16752-77-5)	-	0.0491	0.393	0.4
Azoxystrobin (131860-33-8)	-	0.0491	0.393	0.2	Methyl parathion (298-0-0)	-	0.0491	0.393	0.2
Bifenazate (149877-41-8)	-	0.0491	0.393	0.2	MGK 264 (113-48-4)	-	0.0491	0.393	0.2
Bifenthrin (82657-04-3)	-	0.0491	0.393	0.2	Myclobutanil (88671-89-0)	-	0.0491	0.393	0.2
Boscalid (188425-85-6)	-	0.0491	0.393	0.4	Naled (300-76-5)	-	0.0491	0.393	0.5
Carbaryl (63-25-2)	-	0.0491	0.393	0.2	Oxamyl (23135-22-0)	-	0.0491	0.393	1
Carbofuran (1563-66-2)	-	0.0491	0.393	0.2	Paclobutrazol (76738-62-0)	-	0.0491	0.393	0.4
Chlorantraniliprole (800008-45-7)	-	0.0491	0.393	0.2	Permethrins (52645-53-1)	-	0.0491	0.393	0.2
Chlorfenapyr (122453-73-0)	-	0.0491	0.393	1	Phosmet (732-11-6)	-	0.0491	0.393	0.2
Chlorpyrifos (2921-88-2)	-	0.0491	0.393	0.2	Piperonyl butoxide (51-03-6)	-	0.0491	0.393	2
Clofentezine (74115-24-5)	-	0.0491	0.393	0.2	Prallethrin (2331-36-9)	-	0.0491	0.393	0.2
Cyfluthrin (68359-37-5)	-	0.0491	0.393	1	Propiconazole (60207-90-1))	-	0.0491	0.393	0.4
Cypermethrin (52315-07-8)	-	0.0491	0.393	1	Propoxur (114-26-1)	-	0.0491	0.393	0.2
Daminozide (1596-84-5)	-	0.0491	0.393	1	Pyrethrins (8003-34-7)	-	0.0491	0.393	1
DDVP (62-73-7)	-	0.0491	0.393	0.1	Pyridaben (96489-71-3)	-	0.0491	0.393	0.2
Diazinon (333-41-5)	-	0.0491	0.393	0.2	Spinosad (168316-95-8)	-	0.0491	0.393	0.2
Dimethoate (60-51-5)	-	0.0491	0.393	0.2	Spiromesifen (283594-90-1)	-	0.0491	0.393	0.2
Ethoprophos (13194-48-4)	-	0.0491	0.393	0.2	Spirotetramat (203313-25-1)	-	0.0491	0.393	0.2
Etofenprox (80844-07-1)	-	0.0491	0.393	0.4	Spiroxamine (118134-30-8)	-	0.0491	0.393	0.4
Etoxazole (153233-91-1)	-	0.0491	0.393	0.2	Tebuconazole (80443-41-0)	-	0.0491	0.393	0.4
Fenoxycarb (72490-01-8)	-	0.0491	0.393	0.2	Thiacloprid (111988-49-9)	-	0.0491	0.393	0.2
(E)-Fenpyroximate (134098-61-6)	-	0.0491	0.393	0.4	Thiamethoxam (153719-23-4)	-	0.0491	0.393	0.2
Fipronil (120068-37-3)	-	0.0491	0.393	0.4	Trifloxystrobin (141517-21-7)	-	0.0491	0.393	0.2
Flonicamid (158062-67-0)	-	0.0491	0.393	1					
Fludioxinil (131341-86-1)	-	0.0491	0.393	0.4					
Hexythiazox (78587-05-0)	-	0.0491	0.393	1					
Imazalil (35554-44-0)	-	0.0491	0.393	0.2					
Imidacloprid (138261-41-3)	-	0.0491	0.393	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-200.6)

Analysis Date/Time: 07/23/2024 1804	Method: ICP/MS	Deviations from SOP:
	Instrument: Agilent 7500ce	None
Analyst: KF		

Heavy Metal	Result (µg/kg)	LOD (µg/kg)	LOQ (µg/kg)	Action Level (µg/kg)
Arsenic (As)	-	59.7	94.6	200
Cadmium (Cd)	-	59.7	94.6	200
Lead (Pb)	-	59.7	94.6	500
Mercury (Hg)	-	59.7	94.6	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: 07/24/2024 0957	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	-
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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