

SUMMARY OF ANALYSIS (SAMPLE ID: SA33586)

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: OR10200 Lot Number: M00065C13138471762 Production Run: 7014H20221104KLP1	Sample Type: Primary Matrix: Flower Mass: 15g Date Collected: 11/30/2022 Date Received: 12/01/2022 Date Completed: 12/02/2022
Cultivar (Strain) or Sample Description: Key Lime Pie			

*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 (%)

12.2

Water Activity (aw)

0.551 @ 23.8°C

PASS/FAIL

PASS

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

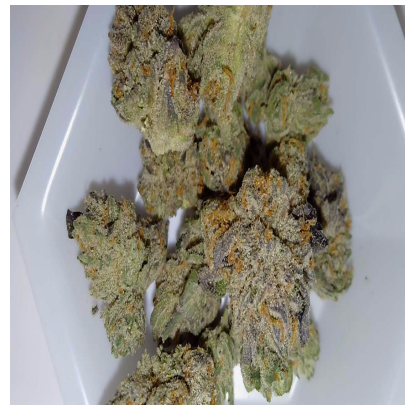
Moisture content levels less than 15% are recommended but the sample does not fail. Water activity levels must be less than 0.65aw.

Cannabinoids (Top 3)	(%)	mg/g
THCA	17.6	176
CBGA	0.716	7.16
Δ9-THC	0.375	3.75
TOTAL CBD	0.0576	0.576
TOTAL THC	15.8	158
TOTAL CANNABINOIDS	19.3	193

Terpenes (Top 5)	(%)	µg/g
β-Caryophyllene	0.157	1570
β-Myrcene	0.0918	918
α-Humulene	0.0653	653
Linalool	0.0600	600
d-Limonene	0.0460	460
TOTAL TERPENES	0.514	5140

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

Sample Picture Upon Receipt



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

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



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA33586)

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: OR10200 Lot Number: M00065C13138471762 Production Run: 7014H20221104KLP1	Sample Type: Primary Matrix: Flower Mass: 15g Date Collected: 11/30/2022 Date Received: 12/01/2022
Cultivar (Strain) or Sample Description: Key Lime Pie			Date Completed: 12/02/2022

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

Analysis Date/Time: 12/1/2022 1857 **Method:** HPLC/DAD **Moisture Content (%):** 12.2
Analyst: PW **Instrument:** Agilent 1100 **Water Activity (aw):** 0.551 @ 23.8°C

<u>Cannabinoid</u>	<u>Result (%)</u>	<u>UM (+/-%)</u>	<u>Result (mg/g)</u>	<u>LOQ (mg/g)</u>	<u>Result (mg/mL)</u>	<u>Per Serving (mg)</u>	<u>Per Unit (mg)</u>
CBC	-	-	-	0.229	-	-	-
CBCA	0.169	0.0152	1.69	0.229	-	1.69	1.69
CBD	-	-	-	0.229	-	-	-
CBDA	0.0656	0.00591	0.656	0.229	-	0.656	0.656
CBDV	-	-	-	0.229	-	-	-
CBDVA	-	-	-	0.229	-	-	-
CBG	0.112	0.0101	1.12	0.229	-	1.12	1.12
CBGA	0.716	0.0645	7.16	0.229	-	7.16	7.16
CBL	-	-	-	0.229	-	-	-
CBN	-	-	-	0.229	-	-	-
CBNA	0.0936	0.00842	0.936	0.229	-	0.936	0.936
Δ9-THC	0.375	0.0338	3.75	0.229	-	3.75	3.75
Δ8-THC	-	-	-	0.229	-	-	-
THCA	17.6	1.59	176	0.229	-	176	176
THCV	-	-	-	0.229	-	-	-
THCVA	0.118	0.0107	1.18	0.229	-	1.18	1.18
TOTAL	19.3	1.73	193			193	193
TOTAL CBC	0.148	0.0133	1.48			1.48	1.48
TOTAL CBD	0.0576	0.00518	0.576			0.576	0.576
TOTAL CBDV	-	-	-			-	-
TOTAL CBG	0.741	0.0667	7.41			7.41	7.41
TOTAL CBN	0.0820	0.00738	0.820			0.820	0.820
TOTAL THC	15.8	1.42	158			158	158
TOTAL THC V	0.103	0.00924	1.03			1.03	1.03



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 THC V = (THCVA x 0.867) + THC V

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

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

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



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA33586)

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: OR10200 Lot Number: M00065C13138471762 Production Run: 7014H20221104KLP1	Sample Type: Primary Matrix: Flower Mass: 15g Date Collected: 11/30/2022 Date Received: 12/01/2022
Cultivar (Strain) or Sample Description: Key Lime Pie			Date Completed: 12/02/2022

TERPENOID PROFILE

Analysis Date/Time: 12/02/2022 0011
Analyst: KF

Method: GC/MS
Instrument: Agilent 7890/5975

Deviations from SOP:
None

<u>Terpene</u>	<u>Result (µg/g)</u>	<u>Result (%)</u>	
α-Bisabolol	-	-	
Camphene	65.5	0.00655	
δ-3-Carene	-	-	
β-Caryophyllene	1570	0.157	█
Caryophyllene oxide	94.1	0.00941	
p-Cymene	-	-	
Eucalyptol	-	-	
Geraniol	81.6	0.00816	
Guaiol	-	-	
α-Humulene	653	0.0653	█
Isopulegol	-	-	
d-Limonene	460	0.0460	█
Linalool	600	0.0600	█
β-Myrcene	918	0.0918	█
cis-Nerolidol	-	-	
trans-Nerolidol	172	0.0172	
α-Ocimene	-	-	
β-Ocimene	68.9	0.00689	
α-Pinene	121	0.0121	
β-Pinene	252	0.0252	█
α-Terpinene	-	-	
γ-Terpinene	-	-	
Terpinolene	83.8	0.00838	
TOTAL	5140	0.514	



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

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.

"-" Not detected above RL.

Reporting Limit (µg/g): 18.7

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

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



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA33586)

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: OR10200 Lot Number: M00065C13138471762 Production Run: 7014H20221104KLP1	Sample Type: Primary Matrix: Flower Mass: 15g Date Collected: 11/30/2022 Date Received: 12/01/2022
Cultivar (Strain) or Sample Description: Key Lime Pie			Date Completed: 12/02/2022

PESTICIDES PROFILE (SOP: SOP-PEST-001)

Analysis Date/Time: 12/01/2022 2032
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)	-	0.0187	0.150	0.5	Kresoxim-methyl (143390-89-0)	-	0.0187	0.150	0.4
Acephate (30560-19-1)	-	0.0187	0.150	0.4	Malathion (121-75-5)	-	0.0187	0.150	0.2
Acetamiprid (135410-20-7)	-	0.0187	0.150	0.2	Metalaxyl (57837-19-1)	-	0.0187	0.150	0.2
Aldicarb (116-06-3)	-	0.0187	0.150	0.4	Methiocarb (2032-65-7)	-	0.0187	0.150	0.2
Azoxystrobin (131860-33-8)	-	0.0187	0.150	0.2	Methomyl (16752-77-5)	-	0.0187	0.150	0.4
Bifenazate (149877-41-8)	-	0.0187	0.150	0.2	Methyl parathion (298-0-0)	-	0.0187	0.150	0.2
Bifenthrin (82657-04-3)	-	0.0187	0.150	0.2	MGK 264 (113-48-4)	-	0.0187	0.150	0.2
Boscalid (188425-85-6)	-	0.0187	0.150	0.4	Myclobutanil (88671-89-0)	-	0.0187	0.150	0.2
Carbaryl (63-25-2)	-	0.0187	0.150	0.2	Naled (300-76-5)	-	0.0187	0.150	0.5
Carbofuran (1563-66-2)	-	0.0187	0.150	0.2	Oxamyl (23135-22-0)	-	0.0187	0.150	1
Chlorantraniliprole (800008-45-7)	-	0.0187	0.150	0.2	Pacllobutrazol (76738-62-0)	-	0.0187	0.150	0.4
Chlorfenapyr (122453-73-0)	-	0.0187	0.150	1	Permethrins (52645-53-1)	-	0.0187	0.150	0.2
Chlorpyrifos (2921-88-2)	-	0.0187	0.150	0.2	Phosmet (732-11-6)	-	0.0187	0.150	0.2
Clofentezine (74115-24-5)	-	0.0187	0.150	0.2	Piperonyl butoxide (51-03-6)	-	0.0187	0.150	2
Cyfluthrin (68359-37-5)	-	0.0187	0.150	1	Prallethrins (2331-36-9)	-	0.0187	0.150	0.2
Cypermethrin (52315-07-8)	-	0.0187	0.150	1	Propiconazole (60207-90-1)	-	0.0187	0.150	0.4
Daminozide (1596-84-5)	-	0.0187	0.150	1	Propoxur (114-26-1)	-	0.0187	0.150	0.2
DDVP (62-73-7)	-	0.0187	0.150	0.1	Pyrethrins (8003-34-7)	-	0.0187	0.150	1
Diazinon (333-41-5)	-	0.0187	0.150	0.2	Pyridaben (96489-71-3)	-	0.0187	0.150	0.2
Dimethoate (60-51-5)	-	0.0187	0.150	0.2	Spinosad (168316-95-8)	-	0.0187	0.150	0.2
Ethoprophos (13194-48-4)	-	0.0187	0.150	0.2	Spiromesifen (283594-90-1)	-	0.0187	0.150	0.2
Etofenprox (80844-07-1)	-	0.0187	0.150	0.4	Spirotetramat (203313-25-1)	-	0.0187	0.150	0.2
Etoxazole (153233-91-1)	-	0.0187	0.150	0.2	Spiroxamine (118134-30-8)	-	0.0187	0.150	0.4
Fenoxycarb (72490-01-8)	-	0.0187	0.150	0.2	Tebuconazole (80443-41-0)	-	0.0187	0.150	0.4
(E)-Fenpyroximate (134098-61-6)	-	0.0187	0.150	0.4	Thiacloprid (111988-49-9)	-	0.0187	0.150	0.2
Fipronil (120068-37-3)	-	0.0187	0.150	0.4	Thiamethoxam (153719-23-4)	-	0.0187	0.150	0.2
Fonicamid (158062-67-0)	-	0.0187	0.150	1	Trifloxystrobin (141517-21-7)	-	0.0187	0.150	0.2
Fludioxinil (131341-86-1)	-	0.0187	0.150	0.4					
Hexythiazox (78587-05-0)	-	0.0187	0.150	1					
Imazalil (35554-44-0)	-	0.0187	0.150	0.2					
Imidacloprid (138261-41-3)	-	0.0187	0.150	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	Systhane	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



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA33586)

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: OR10200 Lot Number: M00065C13138471762 Production Run: 7014H20221104KLP1	Sample Type: Primary Matrix: Flower Mass: 15g Date Collected: 11/30/2022 Date Received: 12/01/2022
Cultivar (Strain) or Sample Description: Key Lime Pie			Date Completed: 12/02/2022

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

Analysis Date/Time: 12/02/2022 0548 (ICP/OES) **Method:** ICP/OES **Deviations from SOP:**
Analysis Date/Time: - (DMA) **Instrument:** Agilent 720-ES None
Analyst: KF

<u>Heavy Metal</u>	<u>Result</u> (µg/kg)	<u>LOD</u> (µg/kg)	<u>LOQ</u> (µg/kg)	<u>Action Level</u> (µg/kg)
Arsenic (As)	-	59.0	93.3	200
Cadmium (Cd)	-	59.0	93.3	200
Lead (Pb)	-	59.0	93.3	500
Mercury (Hg)	-	59.0	93.3	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



"DET" detected less than LOQ
 "-" not detected above LOD

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

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



CERTIFICATE OF ANALYSIS (SAMPLE ID: SA33586)

Testing Location: Arkansas 232 S. Broadview St. Greenbrier, AR 72058 License: ADA 05_H273	Customer ID: 2161 River Valley Relief Cultivation 5601 Old Greenwood Rd Suite C Fort Smith, AR 72903 License: 00065C	Sample ID: SA33586 Lot Number: M00065C13138471762 Production Run: 7014H20221104KLP1	Sample Type: Primary Matrix: Flower Mass: 15g Date Collected: 11/30/2022 Date Received: 12/01/2022
Cultivar (Strain) or Sample Description: Key Lime Pie			Date Completed: 12/02/2022

MICROBIOLOGICAL PROFILE (SOP: SOP-Micro-001)

Analysis Date/Time: 12/2/2022 0631 **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

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

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

