



Certificate of Analysis

Pages 1 of 5

PASSED



Batch #: F15H6GPIE060826
Production Method: Cured
Total Amount: gram
Retail Product Size: gram
Retail Serving Size: gram
Servings: 1
Metric Package #:
1A40A0100000CE9000035893
Metric Source Package #:
1A40A0100000CE9000035898

Lab ID: NA60806007-019
Ordered: 08/06/26
Sampled Date: 08/06/26
Sample Size: 7.39 gram
Completed: 08/12/26
Manifest #: 0003362144

The Heirloom Collective - Massachusetts

87 Northfield Road
Bernardston, MA, 01337, US
License #: RMD825-C



SAFETY RESULTS

MISC.



Pesticide
PASSED



Heavy Metals
PASSED



Microbial
PASSED



Mycotoxins
PASSED



Solvents
NOT TESTED



Filtration
Material
NOT TESTED



Water Activity
NOT TESTED



Moisture
Content
NOT TESTED



Vitamin E
NOT TESTED



Terpenes
TESTED



Cannabinoid

PASSED



Total THC
28.5652%



Total CBD
ND



Total Cannabinoids
33.3430%

	TOTAL CANNABINOIDS	TOTAL TAC	TOTAL THC	TOTAL CBD	THCA	D9-THC	CBDA	CBD	CBDV	CBC	THCVA	THCV	CBGA	D8-THC	CBG	CBN
%	33.3430	29.3810	28.5652	ND	31.4370	0.9950	ND	ND	ND	ND	0.2160	ND	0.5580	ND	0.1370	ND
mg/g	333.4300	293.8105	285.6525	ND	314.3700	9.9500	ND	ND	ND	ND	2.1600	ND	5.5800	ND	1.3700	ND
Qualifier																
LOQ (%)	0.1000	0.0001	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
LOQ (%)	0.1000	0.0006	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000

Analyzed by:
1280, 305, 990, 1623

Weight:
0.1996g

Extraction date:
08/08/26 18:34:57

Extracted by:
1425,1572

Analysis Method: SOP.T.30.031, SOP.T.40.031

Analytical Batch: NA030099POT

Instrument Used: NA-HPLC-004 (Potency - Flower)

Analyzed Date: 08/12/26 14:04:18

Batch Date: 08/07/26 11:08:29

Dilution: 400

Reagent: 070226.02; 070226.03; 093025.03; 050626.06; 042726.R01; 042726.R02; 072926.R21; 080626.R02; 080826.R01

Consumables: 050925CK01; 9479291.009; DMGX08E25S; 04503068; 1009318699; 1011304115; 250406E; 220215E-15; GD250006; 340056236

Pipette: NA-221 (P-10); NA-135 (P-200); NA-329 (Step)

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-UV). (Method: SOP.T.30.031 for sample prep and Shimadzu High Sensitivity Method SOP.T.40.031 for analysis. LOQ for all cannabinoids is 0.5 mg/L). Total THC = d9THC + (THCA*0.877). Total CBD = CBD + (CBDA*0.877). Total Cannabinoids = Total of all available cannabinoids. THCVa is pending ISO accreditation.



Terpenes

TESTED

ANALYTES

		LIMIT	LOD	LOQ	RESULT(%)	(MG/G)	QUALIFIER	PASS/FAIL
TOTAL TERPENES			0.020	0.020	1.487	14.870	TESTED	
BETA-MYRCENE			0.020	0.020	0.415	4.150	TESTED	
LIMONENE			0.020	0.020	0.354	3.540	TESTED	

This Kaycha Labs Certification shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. The results relate only to the material or product analyzed. ND=Not Detected, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be detected and reliably measured by an analytical procedure, respectively. RSD=Relative Standard Deviation. Action Levels are State determined thresholds based on the QAPP and Bulletins issued by the CCC. The Measurement of Uncertainty (MU) error is available from the lab upon request. The "Decision Rule" for pass/fail does not include the MU.

Margaret Teasdale

Lab Director

State License #
IL281349
ISO 17025
Accreditation # 97164



Signature
08/12/26
Laboratory License #:
IL281349



16 Tech Circle, Suite 201
Natick, MA, 01760, US
(401) 219-1491

Kaycha Labs

.....
Grape Pie Bx1 Buds
Strain: Grape Pie Bx1
Matrix: Plant Material
Classification: Raw Plant Material
Type: Flower-Cured



Certificate of Analysis

Pages 2 of 5

The Heirloom Collective -
Massachusetts

87 Northfield Road
Bernardston, MA, 01337, US
License #: RMD825-C

Sample: NA60806007-019

Batch #: F15H6GPIE060826
Seed to sale: 1A40A0100000CE9000035893

Ordered: 08/06/26
Sampled: 08/06/26
Completed: 08/12/26

PASSED



Terpenes

TESTED

ANALYTES		LIMIT	LOD	LOQ	RESULT(%)	(MG/G)	QUALIFIER	PASS/FAIL
BETA-CARYOPHYLLENE			0.020	0.020	0.337	3.370	TESTED	
ALPHA-HUMULENE			0.020	0.020	0.105	1.050	TESTED	
ALPHA-BISABOLOL			0.020	0.020	0.073	0.730	TESTED	
BETA-PINENE			0.020	0.020	0.064	0.640	TESTED	
FENCHYL ALCOHOL			0.020	0.020	0.043	0.430	TESTED	
ALPHA-TERPINEOL			0.020	0.020	0.039	0.390	TESTED	
ALPHA-PINENE			0.020	0.020	0.035	0.350	TESTED	
TRANS-NEROLIDOL			0.020	0.020	0.022	0.220	TESTED	
3-CARENE			0.020	0.020	ND	ND	TESTED	
BORNEOL			0.020	0.020	ND	ND	TESTED	
CAMPHENE			0.020	0.020	ND	ND	TESTED	
CAMPHOR			0.020	0.020	ND	ND	TESTED	
CARYOPHYLLENE OXIDE			0.020	0.020	ND	ND	TESTED	
CEDROL			0.002	0.020	ND	ND	TESTED	
EUCALYPTOL			0.020	0.020	ND	ND	TESTED	
FARNESENE			0.020	0.020	ND	ND	TESTED	
FENCHONE			0.020	0.020	ND	ND	TESTED	
GERANIOL			0.020	0.020	ND	ND	TESTED	
GERANYL ACETATE			0.020	0.020	ND	ND	TESTED	
GUAJOL			0.020	0.020	ND	ND	TESTED	
HEXAHYDROTHYMOL			0.020	0.020	ND	ND	TESTED	
ISOBORNEOL			0.020	0.020	ND	ND	TESTED	
ISOPULEGOL			0.020	0.020	ND	ND	TESTED	
LINALOOL			0.020	0.020	ND	ND	TESTED	
NEROL			0.020	0.020	ND	ND	TESTED	
OCIMENE			0.020	0.020	ND	ND	TESTED	
PULEGONE			0.020	0.020	ND	ND	TESTED	
SABINENE			0.020	0.020	ND	ND	TESTED	
SABINENE HYDRATE			0.020	0.020	ND	ND	TESTED	
TERPINOLENE			0.020	0.020	ND	ND	TESTED	
VALENCENE			0.020	0.020	ND	ND	TESTED	
ALPHA-CEDRENE			0.020	0.020	ND	ND	TESTED	
ALPHA-PHELLANDRENE			0.020	0.020	ND	ND	TESTED	
ALPHA-TERPINENE			0.020	0.020	ND	ND	TESTED	
CIS-NEROLIDOL			0.020	0.020	ND	ND	TESTED	
GAMMA-TERPINENE			0.020	0.020	ND	ND	TESTED	
P-CYMENE			0.020	0.020	ND	ND	TESTED	

Analyzed by:
1583, 990, 1623

Weight:
0.5458g

Extraction date:
08/08/26 16:09:44

Extracted by:
572,1583

Analysis Method : SOP.T.30.064.MA, SOP.T.40.064.MA

Analytical Batch : NA030111TER

Instrument Used : NA-GCMS-004 (Terpenes)

Analyzed Date : 08/12/26 14:09:00

Batch Date : 08/07/26 13:11:14

Dilution : 10

Reagent : 062326.09; 093025.03; 030526.05; 080926.R02

Consumables : 340056236; 050925CK01; IP250.009; 9479291.009; 8580110; 04503068; 1011304115; 1009318600; GD250006

Pipette : NA-014 (P-200); NA-021 (P-20); NA-280 (Dispenser); NA-137 (P-1000)

Terpenoid profile screening is performed using Terpene sample preparation SOP.T.30.064.MA and analyzed using a GC-MS using Method SOP.T.40.064.MA which can screen for 39 terpenes. *p-cymene is not an accredited analyte.

This Kaycha Labs Certification shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. The results relate only to the material or product analyzed. ND=Not Detected, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be detected and reliably measured by an analytical procedure, respectively. RSD=Relative Standard Deviation. Action Levels are State determined thresholds based on the QAPP and Bulletins issued by the CCC. The Measurement of Uncertainty (MU) error is available from the lab upon request. The "Decision Rule" for pass/fail does not include the MU.

Margaret Teasdale
Lab Director

State License #
IL281349
ISO 17025
Accreditation # 97164

Signature
08/12/26
Laboratory License #:
IL281349



16 Tech Circle, Suite 201
Natick, MA, 01760, US
(401) 219-1491

Kaycha Labs

.....
Grape Pie Bx1 Buds
Strain: Grape Pie Bx1
Matrix: Plant Material
Classification: Raw Plant Material
Type: Flower-Cured



Certificate of Analysis

Pages 3 of 5

The Heirloom Collective -
Massachusetts

87 Northfield Road
Bernardston, MA, 01337, US
License # : RMD825-C

Sample: NA60806007-019

Batch #: F15H6GPIE060826
Seed to sale: 1A40A0100000CE9000035893

Ordered: 08/06/26
Sampled: 08/06/26
Completed: 08/12/26

PASSED

	Pesticide	PASSED
--	------------------	---------------

ANALYTES	LIMIT	LOD	LOQ	RESULT	UNIT	QUALIFIER	PASS/FAIL
BIFENTHRIN	10	2.240	10.000	ND	ppb		PASS
BIFENAZATE	10	2.460	10.000	ND	ppb		PASS
ETOXAZOLE	10	1.790	10.000	ND	ppb		PASS
IMAZALIL	10	3.050	10.000	ND	ppb		PASS
IMIDACLOPRID	10	1.860	10.000	ND	ppb		PASS
MYCLOBUTANIL	10	2.900	10.000	ND	ppb		PASS
SPIROMESIFEN	10	2.970	10.000	ND	ppb		PASS
TRIFLOXYSTROBIN	10	1.560	10.000	ND	ppb		PASS
CYFLUTHRIN	10	3.750	10.000	ND	ppb		PASS

Analyzed by: 139, 795, 990, 1544, 1623	Weight: 0.465g	Extraction date: 08/09/26 15:40:04	Extracted by: 1172,139
---	-------------------	---------------------------------------	---------------------------

Analysis Method : SOP.T.40.104.MA
Analytical Batch : NA030120PES
Instrument Used : NA-LCMS-001 (Pesticides)
Analyzed Date : 08/12/26 14:02:15

Batch Date : 08/07/26 16:38:27

Dilution : 12.5
Reagent : 080526.R03; 070626.R12; 080226.R12; 041223.11; 072126.R01
Consumables : IP250.009; 8580110; 1009318699; 1011304115; 1009318600; MO0260424010; GD250006
Pipette : NA-202 (P-200); NA-026 (Dispenser); NA-285 (P-20); NA-307 (P-1000)

Pesticide screen is performed using LC-MS and GC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Currently we analyze for 9 Pesticides. (Method: SOP.T.40.104.MA - Pesticides and Mycotoxins Analysis via LC-MSMS and SOP.T40.154.MA - Volatile Pesticide Analysis via GC-MSMS).

Analyzed by: 795, 990, 1544, 1623	Weight: 0.465g	Extraction date: 08/09/26 15:40:04	Extracted by: 1172,139
--------------------------------------	-------------------	---------------------------------------	---------------------------

Analysis Method : SOP.T.40.154.MA, SOP.T.40.151.MA
Analytical Batch : NA030168VOL
Instrument Used : NA-GCMS-007 (Volatile Pesticide)
Analyzed Date : 08/12/26 14:03:59

Batch Date : 08/10/26 10:41:45

Dilution : 12.5
Reagent : 080526.R03; 070626.R12; 080226.R12; 041223.11; 072126.R01
Consumables : IP250.009; 8580110; 1009318699; 1011304115; 1009318600; MO0260424010; GD250006
Pipette : NA-202 (P-200); NA-026 (Dispenser); NA-285 (P-20); NA-307 (P-1000)

Testing for agricultural agents is performed utilizing Liquid Chromatography Triple-Quadrupole Mass Spectrometry and Gas Chromatography Triple-Quadrupole Mass Spectrometry in accordance with F.S. Rule 64ER20-39.

	Microbial	PASSED
--	------------------	---------------

ANALYTES	LIMIT	LOD	LOQ	RESULT	UNIT	QUALIFIER	PASS/FAIL
TOTAL COLIFORMS	1000	10	10	ND	cfu/g		PASS
TOTAL VIABLE AEROBIC BACTERIA	100001	10	10	ND	cfu/g		PASS
BILE TOLERANT GRAM NEGATIVE BACTERIA	1000	10	10	ND	cfu/g		PASS
TOTAL YEAST AND MOLD	10000	100	100	1300	cfu/g		PASS
ESCHERICHIA COLI SPECIFIC GENE	2000	2000	2000	Not Present	pass/fail		PASS
SALMONELLA SPECIFIC GENE	10000	10000	10000	Not Present	pass/fail		PASS

This Kaycha Labs Certification shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. The results relate only to the material or product analyzed. ND=Not Detected, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be detected and reliably measured by an analytical procedure, respectively. RSD=Relative Standard Deviation. Action Levels are State determined thresholds based on the QAPP and Bulletins issued by the CCC. The Measurement of Uncertainty (MU) error is available from the lab upon request. The "Decision Rule" for pass/fail does not include the MU.

Margaret Teasdale
Lab Director

State License #
IL281349
ISO 17025
Accreditation # 97164

Signature
08/12/26
Laboratory License #:
IL281349



16 Tech Circle, Suite 201
Natick, MA, 01760, US
(401) 219-1491

Kaycha Labs

.....
Grape Pie Bx1 Buds
Strain: Grape Pie Bx1
Matrix: Plant Material
Classification: Raw Plant Material
Type: Flower-Cured



Certificate of Analysis

Pages 4 of 5

The Heirloom Collective -
Massachusetts

87 Northfield Road
Bernardston, MA, 01337, US
License #: RMD825-C

Sample: NA60806007-019

Batch #: F15H6GPIE060826
Seed to sale: 1A40A0100000CE9000035893

Ordered: 08/06/26
Sampled: 08/06/26
Completed: 08/12/26

PASSED

	Microbial	PASSED
---	------------------	---------------

ANALYTES	LIMIT	LOD	LOQ	RESULT	UNIT	QUALIFIER	PASS/FAIL
Analyzed by: 711, 990, 1623	Weight: 1.0728g	Extraction date: 08/07/26 11:34:50				Extracted by: 711	
Analysis Method : SOP.T.40.056C, SOP.T.40.209.MA, SOP.T.40.206.MA Analytical Batch : NA030085MIC Instrument Used : NA-PCR-001 (Microbial) Analyzed Date : 08/12/26 13:21:19							
Batch Date : 08/07/26 07:08:25							
Dilution : 900 Reagent : 102925.01; 062126.R04; 061126.10; 051724.05; 050526.21; 070226.36 Consumables : 418325238F; 8847202-2441; PG1821; 601537; DMAX12K25S; 8580110; DMGX08E25S; 022511; 009604; 5910915; 13235252609; X002B5DL8D; MKDB6516; 260126001; 25494; 250909; 0002734; 0002840; 7589004113; WO4755; WO4699; WO5125; 0002284; 0002285; 0002676; 0001425; 0002261; WO5170; 7811003076; 0002506; 0002507; WO5134; WO4964; 0002304; 0002471; 0000659802; 0000659773; 0000658588; 1011196575; 1010204253; 1011015956; 1011151661 Pipette : NA-001 (P-20, micro); NA-008 (P-10, micro); NA-011 (P-1000, Micro); NA-007 (P-200, micro); NA-003 (P-10 multi, micro); NA-006 (P-200, micro); NA-010 (P-1000, micro); NA-005 (P-200, micro); NA-002 (P-100 multi, micro); NA-164 (P-10, micro); NA-200 (P-300 multi, micro); NA-208 (P-200, micro); NA-207 (P-20, micro); NA-206 (P-20, micro); NA-206A (P-200, micro); NA-207A (P-1000, micro); NA-318 (P-1000, micro); NA-331 (p-100 multi-channel, micro); NA-333 micro bottle top dispenser; NA-355 micro bottle top dispenser; NA-356 micro bottle top dispenser; NA-357 micro bottle top dispenser							
Microbiological testing for Fungal and Bacterial Identification via Polymerase Chain Reaction (PCR) method consisting of sample DNA amplified via tandem Polymerase Chain Reaction (PCR) as a crude lysate which avoids purification. (Method SOP.T.40.056C.MA) If a pathogenic Escherichia Coli or Salmonella is detected in 1g of a sample, the sample fails the microbiological-impurity testing.							

	Mycotoxins	PASSED
---	-------------------	---------------

ANALYTES	LIMIT	LOD	LOQ	RESULT	UNIT	QUALIFIER	PASS/FAIL
AFLATOXIN B1	20	2.010	5.000	ND	ppb		PASS
AFLATOXIN B2	20	1.960	5.000	ND	ppb		PASS
AFLATOXIN G1	20	1.820	5.000	ND	ppb		PASS
AFLATOXIN G2	20	2.100	5.000	ND	ppb		PASS
OCHRATOXIN A	20	2.190	5.000	ND	ppb		PASS
TOTAL AFLATOXINS	20	1.820	5.000	ND	ppb		PASS
Analyzed by: 990, 1544, 1623	Weight: 0.465g	Extraction date: 08/09/26 15:40:04				Extracted by: 1172,139	
Analysis Method : SOP.T.40.104.MA Analytical Batch : NA030167MYC Instrument Used : N/A Analyzed Date : 08/12/26 14:00:33							
Batch Date : 08/10/26 10:40:24							
Dilution : 12.5 Reagent : 080526.R03; 070626.R12; 080226.R12; 041223.11; 072126.R01 Consumables : IP250.009; 8580110; 1009318699; 1011304115; 1009318600; MO0260424010; GD250006 Pipette : NA-202 (P-200); NA-026 (Dispenser); NA-285 (P-20); NA-307 (P-1000)							
Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T40.104.MA Pesticides and Mycotoxins Analysis via LC-MS/MS. LOQ 20 ppb). Total Aflatoxins (Aflatoxin B1, B2, G1, G2) must be <20 µg/Kg. Ochratoxins must be <20 µg/Kg.							

	Heavy Metals	PASSED
---	---------------------	---------------

ANALYTES	LIMIT	LOD	LOQ	RESULT	UNIT	QUALIFIER	PASS/FAIL
ARSENIC	200	5.450	20.000	<20.000	ppb		PASS
CADMIUM	200	5.500	20.000	ND	ppb		PASS
MERCURY	100	3.400	5.000	ND	ppb		PASS
LEAD	500	8.000	20.000	27.089	ppb		PASS

This Kaycha Labs Certification shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. The results relate only to the material or product analyzed. ND=Not Detected, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be detected and reliably measured by an analytical procedure, respectively. RSD=Relative Standard Deviation. Action Levels are State determined thresholds based on the QAPP and Bulletins issued by the CCC. The Measurement of Uncertainty (MU) error is available from the lab upon request. The "Decision Rule" for pass/fail does not include the MU.

Margaret Teasdale
Lab Director

State License #
IL281349
ISO 17025
Accreditation # 97164

Signature
08/12/26
Laboratory License #:
IL281349



16 Tech Circle, Suite 201
Natick, MA, 01760, US
(401) 219-1491

Kaycha Labs

.....
Grape Pie Bx1 Buds
Strain: Grape Pie Bx1
Matrix: Plant Material
Classification: Raw Plant Material
Type: Flower-Cured



Certificate of Analysis

Pages 5 of 5

The Heirloom Collective -
Massachusetts

87 Northfield Road
Bernardston, MA, 01337, US
License # : RMD825-C

Sample: NA60806007-019

Batch #: F15H6GPIE060826
Seed to sale: 1A40A0100000CE9000035893

Ordered: 08/06/26
Sampled: 08/06/26
Completed: 08/12/26

PASSED



Heavy Metals

PASSED

ANALYTES

LIMIT

LOD

LOQ

RESULT

UNIT

QUALIFIER

PASS/FAIL

Analyzed by:
1391, 1544, 1623

Weight:
0.3044g

Extraction date:
08/08/26 10:04:41

Extracted by:
1391,1546

Analysis Method : SOP.T.30.084.MA, SOP.T.40.084.MA

Analytical Batch : NA030070HEA

Instrument Used : NA-ICPMS-002,NA-340 Multiwave 7301 Digester

Analyzed Date : 08/10/26 14:24:10

Batch Date : 08/05/26 17:30:52

Dilution : 50

Reagent : 052626.09; 052626.10; 040726.02; 060226.R08; 060226.R10; 071626.R13; 050526.08; 032726.01

Consumables : 13321; DMGX08E25S; 1011304115; GD250006; 0002279105

Pipette : NA-012 (P-200); NA-255 (10mL Dispensette, HCL); NA-362 (5 mL Bottle Top Dispenser, Nitric Acid); NA-363 (5 mL Bottle Top Dispenser, Water, HEA)

Heavy Metals screening is performed using ICP-MS (Inductively Coupled Plasma - Mass Spectrometer) which can screen down to below single digit ppb concentrations for regulated heavy metals using Method SOP.T.30.084.MA Sample Preparation for Heavy Metals Analysis via ICP-MS and SOP.T.40.084.MA Heavy Metals Analysis via ICP-MS.

This Kaycha Labs Certification shall not be reproduced, unless in its entirety, without written approval from Kaycha Labs. The results relate only to the material or product analyzed. ND=Not Detected, ppm=Parts Per Million, ppb=Parts Per Billion. Limit of Detection (LoD) and Limit Of Quantitation (LoQ) are terms used to describe the smallest concentration that can be detected and reliably measured by an analytical procedure, respectively. RSD=Relative Standard Deviation. Action Levels are State determined thresholds based on the QAPP and Bulletins issued by the CCC. The Measurement of Uncertainty (MU) error is available from the lab upon request. The "Decision Rule" for pass/fail does not include the MU.

Margaret Teasdale

Lab Director

State License #
IL281349
ISO 17025
Accreditation # 97164

Signature
08/12/26
Laboratory License #:
IL281349