



Certificate of Analysis

Feb 26, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00224014-003

Harvest/Lot ID: HS-TVF0222202001

Cultivation Facility: Miami Cultivation

Processing Facility: Homestead Processing

Seed to Sale #4066 7920 2701 0937

Batch Date : 02/22/20

Batch#: HS-TVF0222202001

Sample Size Received: 7 gram

Total Weight/Volume: 1033 gram

Retail Product Size: 0.5 gram gram

Ordered : 02/24/20

sampled : 02/24/20

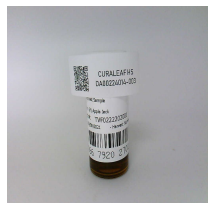
Completed: 02/26/20

Sampling Method: SOP.T.20.010

PASSED

Page 1 of 5

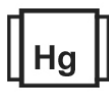
PRODUCT IMAGE



SAFETY RESULTS



Pesticides
PASSED



Heavy Metals
PASSED



Microbials
PASSED



Mycotoxins
PASSED



Residuals
Solvents
PASSED



Filtration
PASSED



Water Activity
NOT TESTED



Moisture
NOT TESTED



Terpenes
TESTED

CANNABINOID RESULTS



Total THC

84.773%

THC/Container : 423.868 mg



Total CBD

4.219%

CBD/Container : 21.095 mg



Total Cannabinoids

94.669%

Total Cannabinoids/Container
: 473.345 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	94.6690	4.2190	84.7730	1.6370	ND	1.4480	0.9440	1.2970	ND	0.3310	ND	4.2190	84.6350	0.1580
mg/g	946.6890	42.1900	847.7300	16.3700	ND	14.4800	9.4400	12.9700	ND	3.3100	ND	42.1900	846.3500	1.5800
LOD	0.0000	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010	0.0001	0.0001	0.0010

Filtration PASSED

Analyzed By	Weight	Extraction date	Extracted By
584	1g	02/25/20	584
Analyte	LOD	Result	
Filtration and Foreign Material	0	ND	
Analysis Method -SOP.T.40.013	Batch Date : 02/25/20 12:44:10		
Analytical Batch -DA010483FIL	Reviewed On - 02/25/20 12:50:11		
Instrument Used : Filtration/Foreign Material Microscope			

This includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. An SH-2B/T Stereo Microscope is used for inspection.

Cannabinoid Profile Test

Analyzed by	Weight	Extraction date :	Extracted By :
1224	0.1047g	02/24/20 01:02:54	965
Analysis Method -SOP.T.40.020, SOP.T.30.050	Reviewed On - 02/25/20 09:09:50	Batch Date : 02/24/20 12:10:50	
Analytical Batch -DA010453POT	Instrument Used : DA-LC-003		
Reagent	Dilution	Consums. ID	
022120.R12	400	180111	
022120.R13		280653964	
022120.R14		914C4-914AK	
		929C6-929H	

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-UV). (Method: SOP.T.30.050 for sample prep and Shimadzu High Sensitivity Method SOP.T.40.020 for analysis. LOQ for all cannabinoids is 1 mg/L).

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Jorge Segredo
Lab Director

State License # CMTL-0002
ISO Accreditation # ISO/IEC
17025:2017 Accreditation
PJLA-Testing 97164


Signature

02/26/20

Signed On



Certificate of Analysis

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 19000 SW 192 STREET
 MIAMI, FL, 33187, US
Telephone: 7865860672
Email: erick.ramirez@curaleaf.com

Sample : DA00224014-003
Harvest/LOT ID: HS-TVF0222202001
Batch# : HS-TVF0222202001
Sampled : 02/24/20
Ordered : 02/24/20

Sample Size Received : 7 gram
Total Weight/Volume : 1033 gram
Completed : 02/26/20 **Expires:** 02/26/21
Sample Method : SOP.T.20.010

Page 2 of 5



Terpenes

TESTED

Terpenes	LOD(%)	mg/g	%	Result (%)	Terpenes	LOD(%)	mg/g	%	Result (%)
ALPHA-CEDRENE	0.007	ND	ND		EUCALYPTOL	0.007	ND	ND	
ALPHA-HUMULENE	0.007	ND	ND		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	54.407	5.440		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	ND	ND		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	4.990	0.499		CIS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		ISOPULEGOL	0.007	ND	ND	
CAMPHENE	0.007	1.350	0.135						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	ND	ND						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	2.397	0.239						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	ND	ND						
BETA-CARYOPHYLLENE	0.007	0.608	0.060						
TRANS-NEROLIDOL	0.007	< 0.2	< 0.020						
VALENCENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	ND	ND						
OCIMENE	0.007	ND	ND						
NEROL	0.007	ND	ND						
LINALOOL	0.007	ND	ND						
LIMONENE	0.007	ND	ND						
GUAJOL	0.007	ND	ND						
GERANYL ACETATE	0.007	ND	ND						
GERANIOL	0.007	ND	ND						
GAMMA-TERPINENE	0.007	ND	ND						
FENCHONE	0.007	ND	ND						
FARNESENE	0.007	ND	ND						
Total (%)		6.375							



Terpenes

TESTED
Analyzed by 1351 **Weight** 1.0195g **Extraction date** 02/24/20 01:02:20 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA010435TER **Reviewed On - 02/26/20 13:58:59**
Instrument Used : Liquid Injection GCMS QP2020 (E-SHI-128)
Running On :
Batch Date : 02/24/20 08:21:12

Reagent	Dilution	Consums. ID
021420.10	10	180111
012120.R13		280653964

Terpenoid profile screening is performed using GC-MS with Liquid Injection (Gas Chromatography - Mass Spectrometer) which can screen 38 terpenes using Method SOP.T.40.091 Terpenoid Analysis Via GC/MS.



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Batch# : HS-TVF0222202001
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Sample Method : SOP.T.20.010

Page 3 of 5


Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.02	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PYRETHRINS	0.01	ppm	0.5	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
ACETAMIPRID	0.01	ppm	0.1	ND	SPINETORAM	0.01	PPM	0.2	ND
ALDICARB	0.02	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
BIFENAZATE	0.01	ppm	0.1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
BIFENTHRIN	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CARBARYL	0.01	ppm	0.5	ND	THIAMETHOXAM	0.01	ppm	0.5	ND
CARBOFURAN	0.01	ppm	1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0.1	PPM	5	ND
CHLORANTRANILIPROLE	0.01	ppm	1	ND	TOTAL PERMETHRIN	1	ppm	0.1	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL SPINOSAD	1	ppm	0.1	ND
CLOFENTEZINE	0.01	ppm	0.2	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
COUMAPHOS	0.005	ppm	0.1	ND					
DAMINOZIDE	0.02	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.1	ND					
DICHLORVOS	0.05	ppm	0.1	ND					
DIMETHOATE	0.01	ppm	0.1	ND					
DIMETHOMORPH	0.005	ppm	0.2	ND					
ETHOPROPHOS	0.01	ppm	0.1	ND					
ETOFENPROX	0.01	ppm	0.1	ND					
ETOXAZOLE	0.01	ppm	0.1	ND					
FENHEXAMID	0.01	ppm	0.1	ND					
FENOXYCARB	0.01	ppm	0.1	ND					
FENPYROXIMATE	0.01	ppm	0.1	ND					
FIPRONIL	0.02	ppm	0.1	ND					
FLONICAMID	0.01	ppm	0.1	ND					
FLUDIOXONIL	0.01	ppm	0.1	ND					
HEXYTHIAZOX	0.01	ppm	0.1	ND					
IMAZALIL	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.01	ppm	0.4	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
MALATHION	0.01	ppm	0.2	ND					
METALAXYL	0.01	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	0.1	ND					
NALED	0.01	ppm	0.25	ND					
OXAMYL	0.01	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.1	ND					
PIPERONYL BUTOXIDE	0.01	ppm	3	ND					
PRALLETHRIN	0.05	ppm	0.1	ND					
PROPICONAZOLE	0.01	ppm	0.1	ND					


Pesticides

PASSED

Analyzed by 585	Weight 1.1600g	Extraction date 02/24/20 03:02:45	Extracted By 1082
Analysis Method - SOP.T.30.065, SOP.T.40.065, SOP.T.40.066, SOP.T.40.070 , SOP.T.30.065, SOP.T.40.070 Analytical Batch - DA010440PES			
Instrument Used : DA-LCMS-001_DER		Reviewed On- 02/25/20 12:50:11	
Running On :		Batch Date : 02/24/20 09:15:30	
Reagent	Dilution	Consums. ID	
013120.30 022420.R04 022420.R05	10	180111 280653964	
Pesticide screen is performed using LC-MS and/or GC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Currently we analyze for 67 Pesticides. (Method: SOP.T.30.060 Sample Preparation for Pesticides Analysis via LCMSMS and GCMSMS, SOP.T.40.065/SOP.T.40.066/SOP.T.40.070 Procedure for Pesticide Quantification Using LCMS and GCMS). * Volatile Pesticide screening is performed using GC-MS which can screen down to below single digit ppb concentrations for regulated Pesticides. Analytes marked with an asterisk were tested using GC-MS.			

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Jorge Segredo
Lab Director

State License # CMTL-0002
ISO Accreditation # ISO/IEC
17025:2017 Accreditation
PJLA-Testing 97164


Signature

02/26/20

Signed On



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Sample : DA00224014-003
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Batch# : HS-TVF0222202001
Sampled : 02/24/20
Ordered : 02/24/20

Sample Size Received : 7 gram
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Completed : 02/26/20 **Expires:** 02/26/21
Sample Method : SOP.T.20.010

Page 4 of 5

	Residual Solvents	PASSED
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	Residual Solvents	PASSED
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Solvent	LOD	Units	Action Level (PPM)	Pass/Fail	Result
BUTANES (N-BUTANE)	96	ppm	5000	PASS	ND
CHLOROFORM	0.18	ppm	2	PASS	ND
1,2-DICHLOROETHANE	0.18	ppm	2	PASS	ND
1,1-DICHLOROETHENE	1	ppm	8	PASS	ND
DICHLOROMETHANE	3.75	ppm	125	PASS	ND
ETHANOL	90	ppm	5000	PASS	ND
ETHYL ACETATE	36	ppm	400	PASS	<140.000
ETHYL ETHER	45	ppm	500	PASS	ND
ETHYLENE OXIDE	0.6	ppm	5	PASS	ND
HEPTANE	45	ppm	5000	PASS	ND
METHANOL	22.5	ppm	250	PASS	ND
N-HEXANE	4.5	ppm	250	PASS	ND
PENTANES (N-PENTANE)	67.5	ppm	750	PASS	ND
ACETONE	67.5	ppm	750	PASS	ND
PROPANE	120	ppm	5000	PASS	ND
ACETONITRILE	5.4	ppm	60	PASS	ND
TOLUENE	13.5	ppm	150	PASS	ND
BENZENE	0.09	ppm	1	PASS	ND
TOTAL XYLENES	13.5	ppm	150	PASS	ND
2-PROPANOL	45	ppm	500	PASS	ND
TRICHLOROETHYLENE	2.25	ppm	25	PASS	ND

Analyzed by	Weight	Extraction date	Extracted By
850	0.0247g	02/25/20 03:02:57	850
Analysis Method -SOP.T.40.032 Analytical Batch -DA010456SOL Instrument Used : Headspace GCMS Running On : Batch Date : 02/24/20 14:23:12			
Reviewed On - 02/26/20 10:29:09			
Reagent	Dilution	Consums. ID	
	1	00279984	
		161291-1	
		24154107	

Residual solvents screening is performed using GC-MS which can detect below single digit ppm concentrations. Currently we analyze for 21 Residual solvents.(Method: SOP.T.40.032 Residual Solvents Analysis via GC-MS).



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Harvest/LOT ID: HS-TVF0222202001
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Sample Method : SOP.T.20.010

Page 5 of 5

	Microbials	PASSED
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Analyte	LOD	Result	Action Level (cfu/g)
ASPERGILLUS_FLAVUS		not present in 1 gram.	
ASPERGILLUS_FUMIGATUS		not present in 1 gram.	
ASPERGILLUS_NIGER		not present in 1 gram.	
ASPERGILLUS_TERREUS		not present in 1 gram.	
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.	
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.	
TOTAL_YEAST_AND_MOLD		not present in 1 gram.	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
Analytical Batch -DA010450MIC **Batch Date :** 02/24/20, 02/24/20
Instrument Used : PathogenDX PCR_Array Scanner, PathogenDX PCR_Array Scanner
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513,	1.0199g	02/24/20	1082,

Reagent	Reagent	Reagent	Consums. ID	Consums. ID
022020.R17	122719.68	013120.32	181019-274	50AX26219
121619.08	122719.74		SG298A	19323
013120.71	122719.124		181207119C	23819111
013120.104	020420.369		918C4-918J	190611634
013120.134	013120.406		914C4-914AK	
013120.73	122719.48		929C6-929H	

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.40.043) If a pathogenic Escherichia Coli, Salmonella, Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, or Aspergillus terreus is detected in 1g of a sample, the sample fails the microbiological-impurity testing. Pour-plating is used for quantitation and confirmation, Total Yeast and Mold has an action limit of 100,000 CFU.

	Mycotoxins	PASSED
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Analyte	LOD	Units	Result	Action Level (PPM)
AFLATOXIN G2	0.002	ppm	ND	0.02
AFLATOXIN G1	0.002	ppm	ND	0.02
AFLATOXIN B2	0.002	ppm	ND	0.02
AFLATOXIN B1	0.002	ppm	ND	0.02
OCHRATOXIN A+	0.002	ppm	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065
Analytical Batch -DA010442 | **Reviewed On** - 02/25/20 16:05:16
Instrument Used : DA-LCMS-001_DER
Running On :
Batch Date : 02/24/20 09:16:21

Analyzed by	Weight	Extraction date	Extracted By
585	1g	02/24/20 03:02:06	585

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T.30.065 for Sample Preparation and SOP.T.40.065 Procedure for Mycotoxins Quantification Using LCMS. LOQ 1.0 ppb). Aflatoxin B1, B2, G1, and G2 must individually be <20ug/Kg. Ochratoxins must be <20ug/Kg.

	Heavy Metals	PASSED
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Reagent	Reagent	Dilution
022020.R13	021720.R04	50
022420.R03	021420.R01	
022420.R01	111319.02	
022420.R02		
021720.R06		
021920.R01		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	PPM	ND	0.2
CADMIUM	0.02	PPM	ND	0.2
LEAD	0.02	PPM	ND	0.5
MERCURY	0.02	PPM	ND	0.2

Analyzed by	Weight	Extraction date	Extracted By
53	0.2622g	02/24/20 02:02:53	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA010445HEA | **Reviewed On** - 02/25/20 15:20:59
Instrument Used : ICPMS-2030
Running On :
Batch Date : 02/24/20 10:27:36

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.30.052 Sample Preparation for Heavy Metals Analysis via ICP-MS and SOP.T.40.050 Heavy Metals Analysis via ICP-MS.

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 Lab Director

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