



Certificate of Analysis

Feb 06, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US

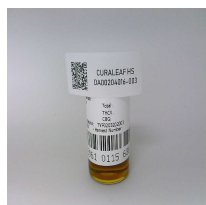


Sample: DA00204016-003
Harvest/Lot ID: HS-TVF0203202003
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #3138 5061 0115 6361
Batch Date : 02/03/20
Batch#: HS-TVF0203202003
Sample Size Received: 7 gram
Total Weight/Volume: 993.5 gram
Retail Product Size: 0.5 gram gram
Ordered : 02/04/20
sampled : 02/04/20
Completed: 02/06/20
Sampling Method: SOP Client Method

PASSED

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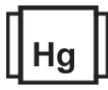
PRODUCT IMAGE



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

MISC.

CANNABINOID RESULTS



Total THC

78.517%

THC/Container : 392.58 mg



Total CBD

3.280%

CBD/Container : 16.40 mg



Total Cannabinoids

85.871%

Total Cannabinoids / Container
: 0.000

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	D8-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	85.8710	3.2800	78.5170	1.2609	0.2800	1.5810	0.6360	ND	ND	0.2740	0.3410	2.9810	78.5170	ND
mg/g	858.7090	32.8000	785.1700	12.6100	2.8000	15.8100	6.3600	ND	ND	2.7400	3.4100	29.8100	785.1700	ND
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
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Analyzed By	Weight	Extraction date	Extracted By
584	1g	02/04/20	584
Analyte			Result
Filtration and Foreign Material			ND
			Batch Date : 02/04/20
			15:58:04

Analysis Method -SOP.T.40.013
Analytical Batch -DA009980FIL
Instrument Used :

This includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. An SH-28/T Stereo Microscope is used for inspection.

Cannabinoid Profile Test

Analyzed by	Weight	Extraction date :	Extracted By :
1224	0.1107g	02/04/20 01:02:27	965
Analysis Method	SOP.T.40.020, SOP.T.30.050		Batch Date :
Analysis Method -SOP.T.40.020, SOP.T.30.050			02/04/20 12:22:49
Analytical Batch	DA009972POT		
Instrument Used	DA-LC-003		

Reagent	Dilution	Consumers ID
123019.R09	400	181205
011020.R11		SPN-BX-1025
020320.R09		849CA-849AK
020320.R10		849CC-849BH

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

02/06/20

Signed On



Certificate of Analysis

PASSED

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

Sample : DA00204016-003
Harvest/LOT ID: HS-TVF0203202003

Batch# : HS-TVF0203202003
Sampled : 02/04/20
Ordered : 02/04/20

Sample Size Received : 7 gram
Total Weight/Volume : 993.5 gram
Completed : 02/06/20 **Expires:** 02/06/21
Sample Method : SOP Client Method

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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	0.239	0.023		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	2.670	0.267		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	27.059	2.705		3-CARENE	0.007	< 0.2	< 0.020	
BETA-PINENE	0.007	2.187	0.218		CIS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		ISOPULEGOL	0.007	ND	ND	
CAMPHENE	0.007	< 0.2	< 0.020						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	0.241	0.024						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	1.831	0.183						
SABINENE	0.007	< 0.2	< 0.020						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	9.872	0.987						
BETA-CARYOPHYLLENE	0.007	6.591	0.659						
TRANS-NEROLIDOL	0.007	< 0.2	< 0.020						
VALENCENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	< 0.2	< 0.020						
OCIMENE	0.007	ND	ND						
NEROL	0.007	ND	ND						
LINALOOL	0.007	ND	ND						
LIMONENE	0.007	7.756	0.775						
GUAJOL	0.007	0.360	0.036						
GERANYL ACETATE	0.007	ND	ND						
GERANIOL	0.007	ND	ND						
GAMMA-TERPINENE	0.007	< 0.2	< 0.020						
FENCHONE	0.007	ND	ND						
FARNESENE	0.007	ND	ND						
Total (%)		5.881							



Terpenes

TESTED
Analyzed by 1351 **Weight** 1.0050g **Extraction date** 02/04/20 01:02:14 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA009953TER
Instrument Used : Liquid Injection GCMS QP2010
Running On :
Batch Date : 02/04/20 07:55:31

Reagent	Dilution	Consums. ID
052119.04	10	180711 280630187

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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Harvest/LOT ID: HS-TVF0203202003

Batch# : HS-TVF0203202003
Sampled : 02/04/20
Ordered : 02/04/20

Sample Size Received : 7 gram
Total Weight/Volume : 993.5 gram
Completed : 02/06/20 **Expires:** 02/06/21
Sample Method : SOP Client Method

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.02	ppm	0.1	ND	PHOSMET	0.01	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PIPERONYL BUTOXIDE	0.01	ppm	3	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ALDICARB	0.02	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	PYRETHRINS	0.01	ppm	0.5	ND
BIFENAZATE	0.01	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
BIFENTHRIN	0.01	ppm	0.1	ND	SPINETORAM	0.01	PPM	0.2	ND
BOSCALID	0.01	PPM	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
CAPTAN	0.05	ppm	0.7	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
CARBARYL	0.01	ppm	0.5	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
CHLORANTRANILIPROLE	0.01	ppm	1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORDANE	0.005	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	0.5	ND
CHLORFENAPYR	0.01	ppm	0.1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0.1	PPM	5	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL PERMETHRIN	1	ppm	0.1	ND
CLOFENTEZINE	0.01	ppm	0.2	ND	TOTAL SPINOSAD	1	ppm	0.1	ND
COUMAPHOS	0.005	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
CYPERMETHRIN	0.01	ppm	0.5	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					



Pesticides

PASSED
Analyzed by 585 **Weight** 0.9031g **Extraction date** 02/04/20 01:02:02 **Extracted By** 585

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 : DA009973PES

Instrument Used : DA-LCMS-001_DER

Running On :
Batch Date : 02/04/20 12:28:00

Reagent

 111019.30
 0130020.813
 020420.802

Dilution

10

Consums. ID

180711

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. * 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

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 17025:2017 Accreditation
 PJLA-Testing 97164

Signature

02/06/20

Signed On



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PASSED

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Email: erick.ramirez@curaleaf.com

Sample : DA00204016-003
Harvest/LOT ID: HS-TVF0203202003
Batch# : HS-TVF0203202003
Sampled : 02/04/20
Ordered : 02/04/20

Sample Size Received : 7 gram
Total Weight/Volume : 993.5 gram
Completed : 02/06/20 **Expires:** 02/06/21
Sample Method : SOP Client Method

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	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	ND
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 850	Weight 0.0274g	Extraction date 02/04/20 05:02:31	Extracted By 850
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Analysis Method -SOP.T.40.032
Analytical Batch -DA009984SOL
Instrument Used : Headspace GCMS
Running On :
Batch Date : 02/04/20 17:33:59

Reagent	Dilution	Consums. ID
	1	161040-1 24151940 24152436

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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Sample : DA00204016-003
Harvest/LOT ID: HS-TVF0203202003
Batch# : HS-TVF0203202003
Sampled : 02/04/20
Ordered : 02/04/20

Sample Size Received : 7 gram
Total Weight/Volume : 993.5 gram
Completed : 02/06/20 **Expires:** 02/06/21
Sample Method : SOP Client Method

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	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.	
STAPHYLOCOCCUS_AUREUS		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 -DA009962MIC Batch Date : 02/04/20, 02/04/20
 Instrument Used : PathogenDX PCR_Array Scanner,PathogenDX PCR_NEW MINI AMP
 DA-089, PathogenDX PCR_Array Scanner
 Running On :

Analyzed by	Weight	Extraction date	Extracted By
513,	1.0192g	02/04/20	357,

Reagent	Consums. ID	Consums. ID
020320.R20	181019-274	19323
	181207119C	23819111
	849C4-849AK	104867-12
	918C4	190611634
	929C6-929H	
	50AX30819	

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	
AFLATOXIN G1	0.002	ppm	ND	
AFLATOXIN B2	0.002	ppm	ND	
AFLATOXIN B1	0.002	ppm	ND	
OCHRATOXIN A+	0.002	ppm	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065
 Analytical Batch -DA009974
 Instrument Used : DA-LCMS-001_DER
 Running On :
 Batch Date : 02/04/20 12:28:59

Analyzed by	Weight	Extraction date	Extracted By
585	1g	02/04/20 04:02:16	585

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC-MS. (Method: SOP.T.30.065 for Sample Preparation and SOP.T40.065 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
020320.R22	012920.R02	50
020420.R03	111319.01	
012920.R05	012920.R01	
012920.R06		
012920.R07		
012920.R03		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.01	PPM	ND	0.2
CADMIUM	0.01	PPM	ND	0.2
LEAD	0.01	PPM	ND	0.5
MERCURY	0.01	PPM	ND	0.2

Analyzed by	Weight	Extraction date	Extracted By
457	0.2594g	02/04/20 01:02:46	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
 Analytical Batch -DA009976HEA
 Instrument Used : ICPMS-2030
 Running On :
 Batch Date : 02/04/20 13:02:46

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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