



# Certificate of Analysis

Feb 13, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET  
MIAMI, FL, 33187, US

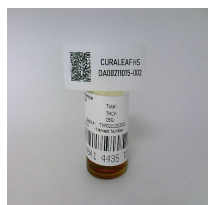


Sample: DA00211015-002  
Harvest/Lot ID: HS-TVF0211202002  
Cultivation Facility: Miami Cultivation  
Processing Facility: Homestead Processing  
Seed to Sale #1014 0841 4435 7382  
Batch Date :02/11/20  
Batch#: HS-TVF0211202002  
Sample Size Received: 7.0  
Total Weight/Volume: 2000  
Retail Product Size: 0.5 gram  
Ordered : 02/11/20  
sampled : 02/11/20  
Completed: 02/13/20  
Sampling Method: SOP Client Method

**PASSED**

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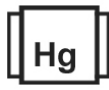
## PRODUCT IMAGE



## 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

**82.719%**

THC/Container :413.60 mg



Total CBD

**0.724%**

CBD/Container :3.62 mg



Total Cannabinoids

**86.687%**

Total Cannabinoids / Container  
:0.000

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	D8-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	86.6870	0.7240	82.7189	1.0250	ND	1.4210	ND	ND	ND	0.7980	ND	0.7240	82.7189	ND
mg/g	866.8700	7.2400	827.1890	10.2500	ND	14.2100	ND	ND	ND	7.9800	ND	7.2400	827.1900	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**

Analyzed By: 584  
Analyte: Filtration and Foreign Material  
Weight: 1g  
Extraction date: 02/11/20  
Extracted By: 584  
LOD: 0  
Result: ND  
Batch Date: 02/11/20 16:37:27

Analysis Method -SOP.T.40.013  
Analytical Batch -DA010159FIL  
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: 456  
Weight: 0.1117g  
Extraction date: 02/11/20 12:02:54  
Analysis Method -SOP.T.40.020, SOP.T.30.050  
Analytical Batch -DA010136POT  
Instrument Used: DA-LC-003  
Extracted By: 574  
Batch Date: 02/11/20 09:38:20

Reagent	Dilution	Consums. ID
020420.R14	400	76124-662 SFN-BX-1025 849C4-849AK 840C6-840H

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).

## Label Claim

Analyte: THC/SERVING  
LOD: 10000  
Units: mg  
Result: 82.719  
**PASSED**

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Jorge Segredo  
Lab Director

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

  
Signature

02/13/20

Signed On



# Certificate of Analysis

**PASSED**

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

**Sample :** DA00211015-002  
**Harvest/LOT ID:** HS-TVF0211202002

**Batch# :** HS-TVF0211202002  
**Sampled :** 02/11/20  
**Ordered :** 02/11/20

**Sample Size Received :** 7.0  
**Total Weight/Volume :** 2000  
**Completed :** 02/13/20 **Expires:** 02/13/21  
**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	18.023	1.802		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	11.250	1.125		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	5.035	0.503		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	0.382	0.038		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	0.496	0.049						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	0.449	0.044						
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	24.586	2.458						
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	2.139	0.213						
GUAJOL	0.007	0.282	0.028						
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	< 0.2	< 0.020						
<b>Total (%)</b>		6.264							



## Terpenes

**TESTED**
**Analyzed by** 1351 **Weight** 0.8351g **Extraction date** 02/11/20 11:02:30 **Extracted By** 1351

**Analysis Method -SOP.T.40.090**  
**Analytical Batch -DA010128TER**  
**Instrument Used : Liquid Injection GCMS QP2020 (E-SHI-128)**  
**Running On :**  
**Batch Date : 02/11/20 08:48:05**

Reagent	Dilution	Consums. ID
052119.04	10	1929V5454 180711

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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## Pesticides

**PASSED**

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
ABAMECTIN B1A	0.02	ppm	0.1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	PYRETHRINS	0.01	ppm	0.5	ND
ALDICARB	0.02	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	SPINETORAM	0.01	PPM	0.2	ND
BIFENAZATE	0.01	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
BIFENTHRIN	0.01	ppm	0.1	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
CARBARYL	0.01	ppm	0.5	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
CARBOFURAN	0.01	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORANTRANILIPROLE	0.01	ppm	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	CAPTAN *	0.005	ppm	0.7	ND
DAMINOZIDE	0.02	ppm	0.1	ND	CHLORDANE *	0.005	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					



## Pesticides

**PASSED**

<b>Analyzed by</b> 56 ,	<b>Weight</b> 0.9872g	<b>Extraction date</b> 02/11/20 01:02:00	<b>Extracted By</b> 357 ,
<b>Analysis Method</b> - SOP.T.30.065, SOP.T.40.065, SOP.T.40.066, SOP.T.40.070 , SOP.T.30.065, SOP.T.40.070 <b>Analytical Batch</b> - DA010143PES <b>Instrument Used</b> : DA-LCMS-001_DER <b>Running On</b> :			
<b>Batch Date</b> : 02/11/20 12:00:45			

<b>Reagent</b>	<b>Dilution</b> 10	<b>Consums. ID</b>
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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

02/13/20

Signed On





# Certificate of Analysis

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 MIAMI, FL, 33187, US  
**Telephone:** 7865860672  
**Email:** erick.ramirez@curaleaf.com

**Sample :** DA00211015-002  
**Harvest/LOT ID:** HS-TVF0211202002

**Batch# :** HS-TVF0211202002  
**Sampled :** 02/11/20  
**Ordered :** 02/11/20

**Sample Size Received :** 7.0  
**Total Weight/Volume :** 2000  
**Completed :** 02/13/20 **Expires:** 02/13/21  
**Sample Method :** SOP Client Method

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	<b>Residual Solvents</b>	<b>PASSED</b>
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	<b>Residual Solvents</b>	<b>PASSED</b>
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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	<140.000
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

<b>Analyzed by</b> 850	<b>Weight</b> 0.0234g	<b>Extraction date</b> 02/11/20 03:02:33	<b>Extracted By</b> 850
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**Analysis Method -SOP.T.40.032**  
**Analytical Batch -DA010153SOL**  
**Instrument Used : Headspace GCMS**  
**Running On :**  
**Batch Date : 02/11/20 14:53:39**

Reagent	Dilution	Consums. ID
	1	00276446 161040-1 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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**Email:** erick.ramirez@curaleaf.com

**Sample :** DA00211015-002  
**Harvest/LOT ID:** HS-TVF0211202002  
**Batch# :** HS-TVF0211202002  
**Sampled :** 02/11/20  
**Ordered :** 02/11/20

**Sample Size Received :** 7.0  
**Total Weight/Volume :** 2000  
**Completed :** 02/13/20 **Expires:** 02/13/21  
**Sample Method :** SOP Client Method

Page 5 of 5

	<b>Microbials</b>	<b>PASSED</b>
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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 -DA010140MIC Batch Date :** 02/11/20, 02/11/20  
**Instrument Used :** PathogenDX PCR\_Array Scanner, PathogenDX PCR\_Array Scanner  
**Running On :**

Analyzed by	Weight	Extraction date	Extracted By
513,	1.0370g	02/11/20	1082,

Reagent	Reagent	Reagent	Consums. ID	Consums. ID
013120.35	122719.83	013120.46	181207119C	181019-274
013120.54	122719.38	122719.32	918C4	SG298A
122719.61	020420.360		923C4-923AK	23819111
013120.31	121719.32		929C6-929H	104867-12
122719.58	122719.49		50AX26219	190611634
122719.80	122719.77		19323	

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.

	<b>Mycotoxins</b>	<b>PASSED</b>
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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 -DA010145**  
**Instrument Used :** DA-LCMS-001\_DER  
**Running On :**  
**Batch Date :** 02/11/20 12:01:46

Analyzed by	Weight	Extraction date	Extracted By
56	1g	02/12/20 11:02:33	56

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.

	<b>Heavy Metals</b>	<b>PASSED</b>
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Reagent	Reagent	Dilution
020320.R22	020720.R02	50
021120.R01	111319.01	
020620.R01	012920.R01	
020620.R02		
012920.R03		
020520.R01		

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
53	0.2563g	02/12/20 11:02:50	457

**Analysis Method -SOP.T.40.050, SOP.T.30.052**  
**Analytical Batch -DA010127HEA**  
**Instrument Used :** ICPMS-2030 B  
**Running On :**  
**Batch Date :** 02/11/20 08:39:22

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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**Jorge Segredo**  
 Lab Director

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 Signature

02/13/20

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