



Certificate of Analysis

Apr 24, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US

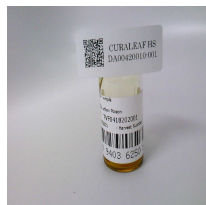


Sample: DA00420010-001
Harvest/Lot ID: HS-TVF0418202001
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #0730 9403 6250 5473
Batch Date :04/18/20
Batch#: HS-TVF0418202001
Sample Size Received: 7 gram
Total Weight/Volume: 1444 gram
Retail Product Size: 0.5 gram gram
Ordered : 04/20/20
sampled : 04/20/20
Completed: 04/24/20
Sampling Method: SOP.T.20.010

PASSED

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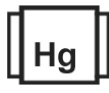
PRODUCT IMAGE



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

CANNABINOID RESULTS



Total THC

80.765%

THC/Container :403.825 mg



Total CBD

0.179%

CBD/Container :0.895 mg



Total Cannabinoids

84.840%

Total Cannabinoids/Container
:424.200 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	84.8400	0.1790	80.7650	1.5100	ND	1.3430	0.6740	ND	ND	0.3690	ND	0.1790	80.7650	ND
mg/g	848.4000	1.7900	807.6500	15.1000	ND	13.4300	6.7400	ND	ND	3.6900	ND	1.7900	807.6500	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
Weight: 1g
Extraction date: 04/20/20
Extracted By: 584
Analyte: Filtration and Foreign Material
Analysis Method: -SOP.T.40.013
Batch Date: 04/20/20 11:41:11
Analytical Batch: -DA011791FIL
Reviewed On: 04/20/20 15:34:39
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: 450
Weight: 0.1080g
Extraction date: 04/20/20 01:04:55
Analysis Method: -SOP.T.40.020, SOP.T.30.050
Reviewed On: 04/21/20 13:29:43
Analytical Batch: -DA011786POT
Instrument Used: DA-LC-003
Extracted By: 965
Batch Date: 04/20/20 10:29:31

Reagent: 032320.30
Dilution: 400
Consums. ID: 180111
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

04/24/20

Signed On



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PASSED

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

Sample : DA00420010-001
Harvest/LOT ID: HS-TVF0418202001
Batch# : HS-TVF0418202001
Sampled : 04/20/20
Ordered : 04/20/20

Sample Size Received : 7 gram
Total Weight/Volume : 1444 gram
Completed : 04/24/20 **Expires:** 04/24/21
Sample Method : SOP.T.20.010

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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	0.266	0.026		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	3.114	0.311		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	11.284	1.128		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	2.531	0.253		CIS-NEROLIDOL	0.007	ND	ND	
BORNEOL	0.013	ND	ND		ISOPULEGOL	0.007	ND	ND	
CAMPHENE	0.007	ND	ND						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE	0.007	0.219	0.021						
OXIDE									
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	1.784	0.178						
SABINENE	0.007	ND	ND						
SABINENE	0.007	ND	ND						
HYDRATE									
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	11.312	1.131						
BETA-CARYOPHYLLENE	0.007	8.199	0.819						
TRANS-NEROLIDOL	0.007	ND	ND						
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	10.349	1.034						
GUAJOL	0.007	ND	ND						
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 (%)		4.906							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.9589g **Extraction date** 04/20/20 11:04:15 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA011769TER
Instrument Used : DA-GCMS-005
Running On :
Batch Date : 04/20/20 08:06:14
Reviewed On - 04/22/20 10:01:49

Reagent	Dilution	Consums. ID
040720.08	10	180111
012120.R13		280678841
030620.05		
030620.08		

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	0.01	ppm	0.1	ND	PIPERONYL BUTOXIDE	0.1	ppm	3	ND
ACEPHATE	0.01	ppm	0.1	ND	PRALLETHRIN	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
ALDICARB	0.01	ppm	0.1	ND	PYRETHRINS	0.05	ppm	0.5	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	PYRIDABEN	0.02	ppm	0.2	ND
BIFENAZATE	0.01	ppm	0.1	ND	SPINETORAM	0.02	PPM	0.2	ND
BIFENTHRIN	0.01	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	SPIROTETRAMAT	0.01	ppm	0.1	ND
CARBARYL	0.05	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	0.1	ppm	1	ND	THIACLOPRID	0.01	ppm	0.1	ND
CHLORMEQUAT CHLORIDE	0.05	ppm	1	ND	THIAMETHOXAM	0.05	ppm	0.5	ND
CHLORPYRIFOS	0.01	ppm	0.1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0	PPM	5	0.103
CLOFENTEZINE	0.02	ppm	0.2	ND	TOTAL PERMETHRIN	0.01	ppm	0.1	ND
COUMAPHOS	0.01	ppm	0.1	ND	TOTAL SPINOSAD	0.01	ppm	0.1	0.103
DAMINOZIDE	0.01	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
DIAZANON	0.01	ppm	0.1	ND					
DICHLORVOS	0.01	ppm	0.1	ND					
CYPERMETHRIN	0.05	ppm	0.5	ND					
DIMETHOATE	0.01	ppm	0.1	ND					
DIMETHOMORPH	0.02	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	0.01	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	0.04	ppm	0.4	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
MALATHION	0.02	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					
METHYL PARATHION	0.005	ppm	0.1	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	0.1	ND					
NALED	0.025	ppm	0.25	ND					
OXAMYL	0.05	ppm	0.5	ND					
PACLOBUTRAZOL	0.01	ppm	0.1	ND					
PHOSMET	0.01	ppm	0.1	ND					



Pesticides

PASSED

Analyzed by 53	Weight 1.0124g	Extraction date NA	Extracted By NA
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 - DA011940PES			
Instrument Used : DA-LCMS-001_DER (PES)		Reviewed On - 04/20/20 15:34:39	
Running On :		Batch Date : 04/24/20 11:48:26	
Reagent	Dilution	Consums. ID	
041420.08		180111	
042320.R14		280678841	
042320.R15			
042320.R21			
111819.03			

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

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 17025:2017 Accreditation
 PJLA-Testing 97164


 Signature

04/24/20

Signed On



Certificate of Analysis

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Email: erick.ramirez@curaleaf.com

Sample : DA00420010-001
Harvest/LOT ID: HS-TVF0418202001

Batch# : HS-TVF0418202001
Sampled : 04/20/20
Ordered : 04/20/20

Sample Size Received : 7 gram
Total Weight/Volume : 1444 gram
Completed : 04/24/20 **Expires:** 04/24/21
Sample Method : SOP.T.20.010

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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
1,1-DICHLOROETHENE	0.8	ppm	8	PASS	ND
1,2-DICHLOROETHANE	0.2	ppm	2	PASS	ND
2-PROPANOL	50	ppm	500	PASS	ND
ACETONE	75	ppm	750	PASS	ND
ACETONITRILE	6	ppm	60	PASS	ND
BENZENE	0.1	ppm	1	PASS	ND
BUTANES (N-BUTANE)	500	ppm	5000	PASS	ND
CHLOROFORM	0.2	ppm	2	PASS	ND
DICHLROMETHANE	12.5	ppm	125	PASS	ND
ETHANOL	500	ppm	5000	PASS	ND
ETHYL ACETATE	40	ppm	400	PASS	ND
ETHYL ETHER	50	ppm	500	PASS	ND
ETHYLENE OXIDE	0.5	ppm	5	PASS	ND
HEPTANE	500	ppm	5000	PASS	ND
METHANOL	25	ppm	250	PASS	ND
N-HEXANE	25	ppm	250	PASS	ND
PENTANES (N-PENTANE)	75	ppm	750	PASS	ND
PROPANE	500	ppm	5000	PASS	ND
TOLUENE	15	ppm	150	PASS	ND
TOTAL XYLENES	15	ppm	150	PASS	ND
TRICHLOROETHYLENE	2.5	ppm	25	PASS	ND

Analyzed by	Weight	Extraction date	Extracted By
850	0.0243g	04/21/20 03:04:34	850
Analysis Method -SOP.T.40.032 Analytical Batch -DA011846SOL Instrument Used : DA-GCMS-002 Running On : Batch Date : 04/21/20 15:43:27			
Reviewed On - 04/24/20 12:18:26			
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-TVF0418202001

Batch# : HS-TVF0418202001
Sampled : 04/20/20
Ordered : 04/20/20

Sample Size Received : 7 gram
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Sample Method : SOP.T.20.010

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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.	
TOTAL_YEAST_AND_MOLD		<100	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
Analytical Batch -DA011780MIC , DA011781TYM **Batch Date :** 04/20/20, 04/20/20
Instrument Used : PathogenDX PCR_Array Scanner DA-111,PathogenDX PCR_DA-171, PathogenDX PCR_Array Scanner DA-111
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513, 513	1.0594g	04/20/20	1082, 513

Reagent	Reagent	Reagent	Consums. ID	Consums. ID
022520.06	013120.376	022120.242	181019-274	50AX26219
101619.04	121719.94	022120.209	SG298A	19323
022120.65	022120.226		181207119C	23819111
022120.35	022120.270		918C4-918J	190611634
022120.179	022120.210		914C4-914AK	
022120.50	022120.338		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 -DA011771MYC | **Reviewed On** - 04/24/20 12:16:13
Instrument Used : DA-LCMS-001_DER (MYC)
Running On :
Batch Date : 04/20/20 08:19:43

Analyzed by	Weight	Extraction date	Extracted By
585	1g	04/21/20 05:04:28	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	Consums. ID
041020.R24	041320.R29	50	106557-04-091619
042020.R01			
042020.R02			
041320.R03			
041320.R02			
041320.R01			

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.02	PPM	ND	0.2
CADMIUM	0.02	PPM	ND	0.2
LEAD	0.05	PPM	ND	0.5
MERCURY	0.02	PPM	ND	0.2

Analyzed by	Weight	Extraction date	Extracted By
53	0.2652g	04/20/20 03:04:46	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA011782HEA | **Reviewed On** - 04/21/20 08:41:17
Instrument Used : DA-ICPMS-001
Running On :
Batch Date : 04/20/20 09:03:11

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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Signature

04/24/20

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