



Certificate of Analysis

Mar 17, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00313013-002

Harvest/Lot ID: HS-TVF0312202001

Cultivation Facility: Miami Cultivation

Processing Facility: Homestead Processing

Seed to Sale #5122 5336 3320 5470

Batch Date : N/A

Batch#: HS-TVF0312202001

Sample Size Received: 7.0 gram

Total Weight/Volume: 2000 gram

Retail Product Size: 0.5 gram gram

Ordered : 03/13/20

sampled : 03/13/20

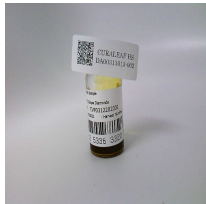
Completed: 03/17/20

Sampling Method: SOP.T.20.010

PASSED

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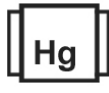
PRODUCT IMAGE



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

82.049%

THC/Container : 410.245 mg



Total CBD

0.242%

CBD/Container : 1.210 mg



Total Cannabinoids

85.303%

Total Cannabinoids/Container
: 426.515 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	85.3030	0.2420	82.0490	0.9660	ND	0.9790	0.7690	ND	ND	0.2980	ND	0.2420	82.0490	ND
mg/g	853.0300	2.4200	820.4900	9.6600	ND	9.7899	7.6900	ND	ND	2.9800	ND	2.4200	820.4900	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	03/16/20	584
Analyte	LOD	Result	
Filtration and Foreign Material	0	ND	
Analysis Method -SOP.T.40.013	Batch Date : 03/16/20 10:47:20		
Analytical Batch -DA010996FIL	Reviewed On - 03/16/20 11:01:22		
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	0.1146g	03/13/20 12:03:23	965
Analysis Method -SOP.T.40.020, SOP.T.30.050	Reviewed On - 03/16/20 15:54:36	Batch Date : 03/13/20 10:05:30	
Analytical Batch -DA010954POT	Instrument Used : DA-LC-003		
Reagent	Dilution	Consums. ID	
022720.R11	400	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

03/17/20

Signed On



Certificate of Analysis

PASSED

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

Sample : DA00313013-002
Harvest/LOT ID: HS-TVF0312202001

Batch# : HS-TVF0312202001
Sampled : 03/13/20
Ordered : 03/13/20

Sample Size Received : 7.0 gram
Total Weight/Volume : 2000 gram
Completed : 03/17/20 **Expires:** 03/17/21
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	2.073	0.207		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	< 0.2	< 0.020		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	29.917	2.991		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	0.532	0.053		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	< 0.2	< 0.020						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	1.001	0.100						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	0.211	0.021						
TERPINOLENE	0.007	ND	ND						
BETA-CARYOPHYLLENE	0.007	6.686	0.668						
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	2.070	0.207						
NEROL	0.007	< 0.2	< 0.020						
LINALOOL	0.007	1.512	0.151						
LIMONENE	0.007	2.138	0.213						
GUAJOL	0.007	0.241	0.024						
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	2.330	0.233						
Total (%)		4.871							



Terpenes

TESTED
Analyzed by 1351 **Weight** 1.0047g **Extraction date** 03/13/20 12:03:41 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA010947TER **Reviewed On - 03/16/20 16:17:18**
Instrument Used : Liquid Injection GCMS QP2020 (E-SHI-128)
Running On :
Batch Date : 03/13/20 08:50:57

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-TVF0312202001
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Sample Method : SOP.T.20.010

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
DIMETHOATE	0.01	ppm	0.1	ND	PACLOBUTRAZOL	0.01	ppm	0.1	ND
CYPERMETHRIN	0.05	ppm	0.5	ND	PHOSMET	0.01	ppm	0.1	ND
CYFLUTHRIN	0.05	ppm	0.5	ND	PIPERONYL BUTOXIDE	0.01	ppm	3	ND
CHLORFENAPYR	0.01	ppm	0.1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
METHYL PARATHION	0.005	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
CAPTAN	0.07	ppm	0.7	ND	PROPOXUR	0.01	ppm	0.1	ND
ABAMECTIN B1A	0.02	ppm	0.1	ND	PYRETHRINS	0.01	ppm	0.5	ND
ACEPHATE	0.001	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
DICHLORVOS	0.05	ppm	0.1	ND	SPINETORAM	0.01	PPM	0.2	ND
DIMETHOMORPH	0.005	ppm	0.2	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
ETHOPROPHOS	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
ALDICARB	0.02	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.1	ND
ETOFENPROX	0.01	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	0.5	ND
AZOXYSTROBIN	0.01	ppm	0.1	ND	TOTAL CONTAMINANT LOAD (PESTICIDES)	0.1	PPM	5	0.088
ETOXAZOLE	0.01	ppm	0.1	ND	TOTAL PERMETHRIN	1	ppm	0.1	ND
BIFENAZATE	0.01	ppm	0.1	ND	TOTAL SPINOSAD	1	ppm	0.1	0.088
FENHEXAMID	0.01	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
FENOXYCARB	0.01	ppm	0.1	ND					
BIFENTHRIN	0.01	ppm	0.1	ND					
BOSCALID	0.01	PPM	0.1	ND					
FENPYROXIMATE	0.01	ppm	0.1	ND					
CARBARYL	0.01	ppm	0.5	ND					
FIPRONIL	0.02	ppm	0.1	ND					
FLONICAMID	0.01	ppm	0.1	ND					
CARBOFURAN	0.01	ppm	0.1	ND					
CHLORANTRANILIPROLE	0.01	ppm	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					
CHLORPYRIFOS	0.01	ppm	0.1	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
MALATHION	0.01	ppm	0.2	ND					
CLOFENTEZINE	0.01	ppm	0.2	ND					
METALAXYL	0.01	ppm	0.1	ND					
COUMAPHOS	0.005	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
DAMINOZIDE	0.02	ppm	0.1	ND					
DIAZANON	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					

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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	1	ppm	8	PASS	ND
1,2-DICHLOROETHANE	0.18	ppm	2	PASS	ND
2-PROPANOL	45	ppm	500	PASS	ND
ACETONE	67.5	ppm	750	PASS	ND
ACETONITRILE	5.4	ppm	60	PASS	ND
BENZENE	0.09	ppm	1	PASS	ND
BUTANES (N-BUTANE)	96	ppm	5000	PASS	ND
CHLOROFORM	0.18	ppm	2	PASS	ND
DICHLOROMETHANE	3.75	ppm	125	PASS	ND
ETHANOL	90	ppm	5000	PASS	223.282
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	<17.400
PENTANES (N-PENTANE)	67.5	ppm	750	PASS	ND
PROPANE	120	ppm	5000	PASS	ND
TOLUENE	13.5	ppm	150	PASS	ND
TOTAL XYLENES	13.5	ppm	150	PASS	ND
TRICHLOROETHYLENE	2.25	ppm	25	PASS	ND

Analyzed by	Weight	Extraction date	Extracted By
850	0.0215g	03/13/20 05:03:52	850

Analysis Method -SOP.T.40.032
Analytical Batch -DA010970SOL
Instrument Used : Headspace GCMS
Running On :
Batch Date : 03/13/20 17:10:49

Reviewed On - 03/16/20 15:45:49

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-TVF0312202001
Batch# : HS-TVF0312202001
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Ordered : 03/13/20

Sample Size Received : 7.0 gram
Total Weight/Volume : 2000 gram
Completed : 03/17/20 **Expires:** 03/17/21
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 -DA010945MIC , DA010949TYM Batch Date : 03/13/20, 03/13/20
Instrument Used : PathogenDX PCR_Array Scanner, PathogenDX PCR_Array Scanner
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513, 513	1.0001g	03/13/20	513, 513

Reagent	Reagent	Reagent	Consums. ID	Consums. ID
012120.05	013120.328	013120.245	181019-274	50AX26219
121619.11	013120.333	121719.24	SG298A	19323
020320.56	122719.32	013120.109	181207119C	23819111
020320.57	013120.415	122719.137	918C4-918J	190611634
013120.93	013120.416	122719.138	914C4-914AK	
013120.322	013120.417	122719.70	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 -DA010910 | Reviewed On - 03/16/20 13:05:22
Instrument Used : DA-LCMS-001_DER
Running On :
Batch Date : 03/12/20 09:09:54

Analyzed by	Weight	Extraction date	Extracted By
585	1g	03/13/20 02:03:39	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
031320.R10	111319.02	50
030920.R03		
030920.R04		
030420.R03		
030920.R02		
030420.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	0.2554g	NA	NA

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA010982HEA | Reviewed On - 03/17/20 08:50:54
Instrument Used : ICPMS-2030
Running On :
Batch Date : 03/16/20 09:13:40

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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