



Certificate of Analysis

Apr 16, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



Sample: DA00413011-002

Harvest/Lot ID: HS-TVF0413202001

Cultivation Facility: Miami Cultivation

Processing Facility: Homestead Processing

Seed to Sale #4955 4628 0805 0445

Batch Date : 04/13/20

Batch#: HS-TVF0413202001

Sample Size Received: 7 gram

Total Weight/Volume: 1180 gram

Retail Product Size: 0.5 gram gram

Ordered : 04/13/20

sampled : 04/13/20

Completed: 04/16/20

Sampling Method: SOP.T.20.010

PASSED

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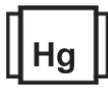
PRODUCT IMAGE



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

79.212%

THC/Container : 396.060 mg



Total CBD

0.223%

CBD/Container : 1.115 mg



Total Cannabinoids

83.698%

Total Cannabinoids/Container
: 418.490 mg

	TOTAL CA	TOTAL CB	TOTAL TH	CBG	CBGA	CBG	THCV	DB-THC	CBDV	CBN	CBDA	CBD	D9-THC	THCA
%	83.6979	0.2230	79.2120	1.5129	ND	1.4990	0.7500	0.1409	ND	0.3600	ND	0.2230	79.2120	ND
mg/g	836.9790	2.2300	792.1200	15.1300	ND	14.9900	7.5000	1.4100	ND	3.6000	ND	2.2300	792.1200	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	Weight	Extraction date	Extracted By
584	1g	04/13/20	584
Analyte	LOD	Result	
Filtration and Foreign Material	0	ND	
Analysis Method -SOP.T.40.013	Batch Date : 04/13/20 11:58:06		
Analytical Batch -DA011623FIL	Reviewed On - 04/13/20 11:59:46		
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 :
450	0.1183g	04/13/20 12:04:43	965
Analysis Method -SOP.T.40.020, SOP.T.30.050	Instrument Used : DA-LC-003	Reviewed On - 04/14/20 12:10:34	Batch Date : 04/13/20 08:53:13
Analytical Batch -DA011598POT			

Reagent	Dilution	Consums. ID
032320.30	400	180111
040726.R18		914C4-914AK
040726.R17		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

04/16/20

Signed On



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

Sample : DA00413011-002
Harvest/LOT ID: HS-TVF0413202001

Batch# : HS-TVF0413202001
Sampled : 04/13/20
Ordered : 04/13/20

Sample Size Received : 7 gram
Total Weight/Volume : 1180 gram
Completed : 04/16/20 **Expires:** 04/16/21
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	1.884	0.188		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	4.762	0.476		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	15.857	1.585		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	3.477	0.347		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 OXIDE	0.007	< 0.2	< 0.020						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	4.276	0.427						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	12.868	1.286						
BETA-CARYOPHYLLENE	0.007	7.289	0.728						
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	13.986	1.398						
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 (%)		6.440							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.9915g **Extraction date** 04/13/20 11:04:19 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA011612TER **Reviewed On** - 04/14/20 09:53:34
Instrument Used : DA-GCMS-004
Running On :
Batch Date : 04/13/20 09:39:42

Reagent	Dilution	Consums. ID
030620.04	10	180111
030620.07		280678841
012120.R13		
040720.08		

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	ND
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	ND
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 585	Weight 1.0506g	Extraction date 04/13/20 04:04:51	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 - DA011610PES		Reviewed On - 04/13/20 11:59:46	
Instrument Used : DA-LCMS-001_DER (PES)			
Running On :		Batch Date : 04/13/20 09:35:59	
Reagent		Dilution	Consums. ID
072919.19		10	180111
020720.12			280678841
041320.032			
041320.033			
041320.034			
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

04/16/20

Signed On



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Completed : 04/16/20 **Expires:** 04/16/21
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	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	<140.000
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	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
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	0.0281g	04/14/20 12:04:44	584
Analysis Method -SOP.T.40.032 Analytical Batch -DA011651SOL Instrument Used : DA-GCMS-003 Running On : Batch Date : 04/14/20 10:36:58			
Reviewed On - 04/15/20 13:45:12			
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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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 -DA011599MIC , DA011704TYM Batch Date : 04/13/20, 04/15/20
 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	1.0325g	04/13/20	1082, 513

Reagent	Reagent	Reagent	Reagent	Consums. ID	Consums. ID
012120.06	121719.97	013120.80	022120.89	181019-274	50AX26219
101619.04	020420.368	013120.160	022120.155	SG298A	19323
013120.76	022120.223	022120.44	022120.156	181207119C	23819111
122719.32	022120.275	022120.242	022120.158	918C4-918J	190611634
022120.35	022120.194	022120.294	022120.90	914C4-914AK	104867-12
022120.181	013120.101	022120.193		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 -DA011611 | Reviewed On - 04/14/20 16:32:15
 Instrument Used : DA-LCMS-001_DER (MYC)
 Running On :
 Batch Date : 04/13/20 09:37:30

Analyzed by	Weight	Extraction date	Extracted By
585	1g	04/13/20 04:04:25	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
040720.R10	041320.R02	50	106557-04-091619
041020.R13	041320.R01		
111319.05	033120.R12		
042020.R01			
041320.R04			
041320.R03			

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	0.2636g	04/13/20 01:04:26	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
 Analytical Batch -DA011608HEA | Reviewed On - 04/14/20 08:11:41
 Instrument Used : DA-ICPMS-001
 Running On :
 Batch Date : 04/13/20 09:11:53

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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04/16/20

Signed On