



Certificate of Analysis

Feb 26, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US

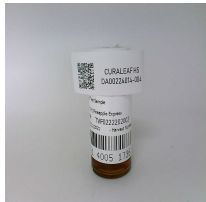


Sample: DA00224014-004
Harvest/Lot ID: HS-TVF0222202002
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #8301 4005 1736 0466
Batch Date : 02/22/20
Batch#: HS-TVF0222202002
Sample Size Received: 7 gram
Total Weight/Volume: 1287 gram
Retail Product Size: 0.5 gram gram
Ordered : 02/24/20
sampled : 02/24/20
Completed: 02/26/20
Sampling Method: SOP.T.20.010

PASSED

Page 1 of 5

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

86.214%

THC/Container : 431.071 mg



Total CBD

3.045%

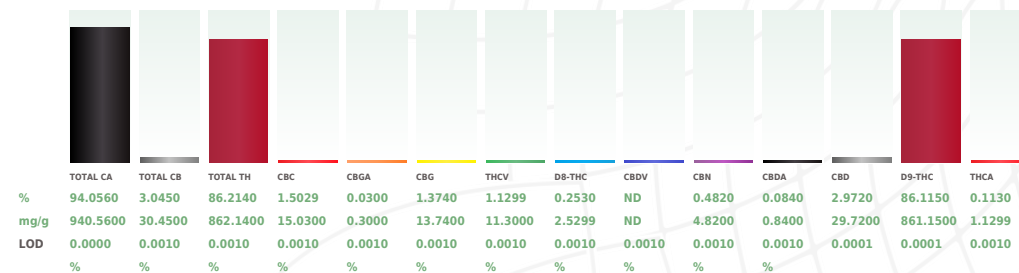
CBD/Container : 15.228 mg



Total Cannabinoids

94.056%

Total Cannabinoids/Container : 470.280 mg



Filtration PASSED

Analyzed By: 584
Analyte: Filtration and Foreign Material
Analysis Method: -SOP.T.40.013
Instrument Used: Filtration/Foreign Material Microscope
Extraction date: 02/25/20
Extracted By: 584
LOD: 0
Result: ND
Batch Date: 02/25/20 12:44:10
Reviewed On: 02/25/20 12:50:04

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 1224	Weight 0.1016g	Extraction date : 02/24/20 01:02:00	Extracted By : 965
Analysis Method -SOP.T.40.020, SOP.T.30.050	Instrument Used : DA-LC-003	Reviewed On - 02/25/20 09:10:01	Batch Date : 02/24/20 12:10:50
Analytical Batch -DA010453POT			
Reagent 022120.R12 022120.R13 022120.R14	Dilution 400	Consumers. ID 180111 280653964 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

02/26/20

Signed On



Certificate of Analysis

PASSED

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

Sample : DA00224014-004
Harvest/LOT ID: HS-TVF0222202002

Batch# : HS-TVF0222202002
Sampled : 02/24/20
Ordered : 02/24/20

Sample Size Received : 7 gram
Total Weight/Volume : 1287 gram
Completed : 02/26/20 **Expires:** 02/26/21
Sample Method : SOP.T.20.010

Page 2 of 5



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	0.474	0.047		ISOBORNEOL	0.007	ND	ND	
ALPHA-PINENE	0.007	3.726	0.372		HEXAHYDROTHYMOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		FENCHYL ALCOHOL	0.007	ND	ND	
BETA-MYRCENE	0.007	7.967	0.796		3-CARENE	0.007	ND	ND	
BETA-PINENE	0.007	2.788	0.278		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	1.954	0.195						
SABINENE	0.007	ND	ND						
SABINENE HYDRATE	0.007	ND	ND						
TERPINEOL	0.007	ND	ND						
TERPINOLENE	0.007	9.093	0.909						
BETA-CARYOPHYLLENE	0.007	14.616	1.461						
TRANS-NEROLIDOL	0.007	< 0.2	< 0.020						
VALENCENE	0.007	1.150	0.115						
PULEGONE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	0.271	0.027						
OCIMENE	0.007	ND	ND						
NEROL	0.007	ND	ND						
LINALOOL	0.007	6.781	0.678						
LIMONENE	0.007	8.063	0.806						
GUAJOL	0.007	< 0.2	< 0.020						
GERANYL ACETATE	0.007	ND	ND						
GERANIOL	0.007	< 0.2	< 0.020						
GAMMA-TERPINENE	0.007	< 0.2	< 0.020						
FENCHONE	0.007	ND	ND						
FARNESENE	0.007	ND	ND						
Total (%)		5.688							



Terpenes

TESTED
Analyzed by 1351 **Weight** 0.9866g **Extraction date** 02/24/20 01:02:21 **Extracted By** 1351

Analysis Method -SOP.T.40.090
Analytical Batch -DA010435TER **Reviewed On - 02/26/20 14:00:59**
Instrument Used : Liquid Injection GCMS QP2020 (E-SHI-128)
Running On :
Batch Date : 02/24/20 08:21:12

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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Sample : DA00224014-004
Harvest/LOT ID: HS-TVF0222202002

Batch# : HS-TVF0222202002
Sampled : 02/24/20
Ordered : 02/24/20

Sample Size Received : 7 gram
Total Weight/Volume : 1287 gram
Completed : 02/26/20 **Expires:** 02/26/21
Sample Method : SOP.T.20.010

Page 3 of 5



Pesticides

PASSED

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



Pesticides

PASSED

Analyzed by 585	Weight 1.0001g	Extraction date 02/24/20 03:02:44	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 - DA010440PES		Reviewed On - 02/25/20 12:50:04	
Instrument Used : DA-LCMS-001_DER		Batch Date : 02/24/20 09:15:30	
Running On :			
Reagent	Dilution	Consums. ID	
013120.30	10	180111	
022420.R04		280653964	
022420.R05			
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

02/26/20

Signed On



Certificate of Analysis

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Telephone: 7865860672
Email: erick.ramirez@curaleaf.com

Sample : DA00224014-004
Harvest/LOT ID: HS-TVF0222202002
Batch# : HS-TVF0222202002
Sampled : 02/24/20
Ordered : 02/24/20

Sample Size Received : 7 gram
Total Weight/Volume : 1287 gram
Completed : 02/26/20 **Expires:** 02/26/21
Sample Method : SOP.T.20.010

Page 4 of 5

	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	Weight	Extraction date	Extracted By
850	0.0286g	02/25/20 03:02:58	850
Analysis Method -SOP.T.40.032			
Analytical Batch -DA010456SOL			
Instrument Used : Headspace GCMS			
Running On :			
Batch Date : 02/24/20 14:23:12			
Reviewed On - 02/26/20 10:30:25			
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-TVF0222202002
Batch# : HS-TVF0222202002
Sampled : 02/24/20
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Sample Method : SOP.T.20.010

Page 5 of 5

	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		not present in 1 gram.	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041
Analytical Batch -DA010450MIC **Batch Date :** 02/24/20, 02/24/20
Instrument Used : PathogenDX PCR_Array Scanner, PathogenDX PCR_Array Scanner
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513,	1.0680g	02/24/20	1082,

Reagent	Reagent	Reagent	Consums. ID	Consums. ID
022020.R17	122719.68	013120.32	181019-274	50AX26219
121619.08	122719.74		SG298A	19323
013120.71	122719.124		181207119C	23819111
013120.104	020420.369		918C4-918J	190611634
013120.134	013120.406		914C4-914AK	
013120.73	122719.48		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 -DA010442 | **Reviewed On** - 02/25/20 16:05:21
Instrument Used : DA-LCMS-001_DER
Running On :
Batch Date : 02/24/20 09:16:21

Analyzed by	Weight	Extraction date	Extracted By
585	1g	02/24/20 03:02:07	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
022020.R13	021720.R04	50
022420.R03	021420.R01	
022420.R01	111319.02	
022420.R02		
021720.R06		
021920.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	0.2552g	02/24/20 02:02:54	457

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA010445HEA | **Reviewed On** - 02/25/20 15:21:04
Instrument Used : ICPMS-2030
Running On :
Batch Date : 02/24/20 10:27:36

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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