



Certificate of Analysis

Sep 25, 2019 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US

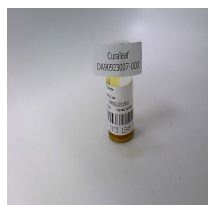


Sample: DA90923007-002
Harvest/Lot ID: HS-TVF0922201901
Cultivation Facility: Miami Cultivation
Processing Facility: Homestead Processing
Seed to Sale #8280 7373 1545 6045
Batch Date :N/A
Batch#: HS-TVF0922201901
Sample Size Received: 7 gram
Total Weight/Volume: 2100 gram
Retail Product Size: 0.5 gram gram
Ordered : 09/23/19
sampled : 09/23/19
Completed: 09/25/19
Sampling Method: SOP Client Method

PASSED

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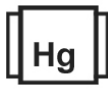
PRODUCT IMAGE



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

87.677%

THC/Container :438.39 mg



Total CBD

0.156%

CBD/Container :0.78 mg



Total Cannabinoids

0.000%

Total Cannabinoids / Container
:0.000

D9-THC	THCA	CBD	CBN	CBDV	D8-THC	THCV	CBG	CBGA	CBC	TOTAL TH	TOTAL CB	CBDa
87.6770	ND	0.1560	0.1970	ND	0.1510	0.3310	1.4170	0.1200	1.0570	87.6770	0.1560	ND
mg/g	876.7700	ND	1.5600	1.9700	ND	1.5100	3.3100	14.1700	1.2000	10.5700	876.7700	ND
LOD	0.0332	0.0025	0.0243	0.0011	0.0064	0.0068	0.0059	0.0045	0.0010	0.0011	0.0010	0.0015
%	%	%	%	%	%	%	%	%	%	%	%	%

Filtration	PASSED
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Analyzed By	Weight	Extraction date	Extracted By
53	1g	NA	NA
Analyte			LOD
Filtration and Foreign Material			0
Analysis Method -SOP.T.40.013			Batch Date :
Analytical Batch -DA006587			
Instrument Used :			

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 :
372	0.1160g	09/23/19 02:09:34	372
Analysis Method -SOP.T.40.020, SOP.T.30.050			Batch Date :
Analytical Batch -DA006592	Instrument Used :		

Reagent	Dilution	Consums. ID
092319.R15		76124-662
092319.R14		SPN-BK-1025
092319.R11		923C4-923AK
092319.R07		910C6 - 910H

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

09/25/19

Signed On



Certificate of Analysis

PASSED

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

Sample : DA90923007-002
Harvest/LOT ID: HS-TVF0922201901

Batch# : HS-TVF0922201901
Sampled : 09/23/19
Ordered : 09/23/19

Sample Size Received : 7 gram
Total Weight/Volume : 2100 gram
Completed : 09/25/19 **Expires:** 09/25/20
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		SABINENE	0.007	ND	ND	
ALPHA-HUMULENE	0.007	1.696	0.169		SABINENE HYDRATE	0.007	ND	ND	
ALPHA-PINENE	0.007	4.754	0.475		TERPINEOL	0.007	ND	ND	
ALPHA-TERPINENE	0.007	ND	ND		TERPINOLENE	0.007	13.976	1.397	
BETA-MYRCENE	0.007	29.873	2.987		TRANS-CARYOPHYLLENE	0.007	5.231	0.523	
BETA-PINENE	0.007	3.382	0.338		TRANS-NEROLIDOL	0.007	0.272	0.027	
BORNEOL	0.013	ND	ND		VALENCENE	0.007	ND	ND	
CAMPHENE	0.007	< 0.2	< 0.020						
CAMPHOR	0.013	ND	ND						
CARYOPHYLLENE OXIDE	0.007	0.208	0.020						
CEDROL	0.007	ND	ND						
ALPHA-BISABOOL	0.007	2.645	0.264						
ISOPULEGOL	0.007	ND	ND						
CIS-NEROLIDOL	0.007	ND	ND						
3-CARENE	0.007	< 0.2	< 0.020						
FENCHYL ALCOHOL	0.007	ND	ND						
HEXAHYDROTHYMOL	0.007	ND	ND						
EUCALYPTOL	0.007	0.503	0.050						
ISOBORNEOL	0.007	ND	ND						
FARNESENE	0.007	0.254	0.025						
FENCHONE	0.007	ND	ND						
GAMMA-TERPINENE	0.007	< 0.2	< 0.020						
GERANIOL	0.007	ND	ND						
GERANYL ACETATE	0.007	ND	ND						
GUAJOL	0.007	< 0.2	< 0.020						
LIMONENE	0.007	16.071	1.607						
LINALOOL	0.007	ND	ND						
NEROL	0.007	ND	ND						
OCIMENE	0.007	ND	ND						
ALPHA-PHELLANDRENE	0.007	ND	ND						
PULEGONE	0.007	ND	ND						
Total (%)		7.887							



Terpenes

TESTED
Analyzed by 585 **Weight** 0.9888g **Extraction date** 09/23/19 05:09:11 **Extracted By** 585

Analysis Method -SOP.T.40.090
Analytical Batch -DA006569
Instrument Used :
Running On :
Batch Date :

Reagent	Dilution	Consums. ID
091819.R09	10	180711 SFN-BX-1025 923C4-923AK 910C6 - 910H

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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Harvest/LOT ID: HS-TVF0922201901

Batch# : HS-TVF0922201901
Sampled : 09/23/19
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Sample Size Received : 7 gram
Total Weight/Volume : 2100 gram
Completed : 09/25/19 **Expires:** 09/25/20
Sample Method : SOP Client Method

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
DIMETHOATE	0.01	ppm	0.05	ND	PACLOBUTRAZOL	0.01	ppm	0.05	ND
ABAMECTIN B1A	0.02	ppm	0.1	ND	TRANS-PERMETHRIN	0.05	ppm	0.1	ND
PENTACHLORONITROBENZENE	0.005	ppm	0.2	ND	PHOSMET	0.01	ppm	0.1	ND
METHYL PARATHION	0.005	ppm	0.2	ND	PIPERONYL BUTOXIDE	0.01	ppm	3	ND
CYFLUTHRIN	0.025	ppm	1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
CIS-PERMETHRIN	0.05	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PROPOXUR	0.01	ppm	0.1	ND
DIMETHOMORPH	0.005	ppm	0.05	ND	PYRETHRIN I	0.01	ppm	0.5	ND
ETHOPROPHOS	0.01	ppm	0.05	ND	PYRIDABEN	0.01	ppm	0.2	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	SPINOSAD (SPINOSYN A)	0.01	ppm	0.1	ND
ACETAMIPRID	0.01	ppm	0.05	ND	SPINOSAD (SPINOSYN D)	0.01	ppm	0.1	ND
ETOFENPROX	0.01	ppm	0.05	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
ALDICARB	0.02	ppm	0.05	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
ETOXAZOLE	0.01	ppm	0.05	ND	SPIROXAMINE	0.01	ppm	0.05	ND
AZOXYSTROBIN	0.01	ppm	0.05	ND	TEBUCONAZOLE	0.01	ppm	0.05	ND
FENHEXAMID	0.01	ppm	0.1	ND	THIACLOPRID	0.01	ppm	0.05	ND
BIFENAZATE	0.01	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	0.05	ND
FENOXYCARB	0.01	ppm	0.05	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
FENPYROXIMATE	0.01	ppm	0.5	ND					
BIFENTHRIN	0.01	ppm	0.1	ND					
CARBARYL	0.01	ppm		ND					
FIPRONIL	0.02	ppm	0.05	ND					
FLONICAMID	0.01	ppm	0.4	ND					
CARBOFURAN	0.01	ppm		ND					
CHLORANTRANILPROLE	0.01	ppm		ND					
FLUDIOXONIL	0.01	ppm	0.1	ND					
HEXYTHIAZOX	0.01	ppm	0.25	ND					
CHLORFENAPYR	0.01	ppm	0.05	ND					
IMAZALIL	0.01	ppm	0.05	ND					
CHLORPYRIFOS	0.01	ppm	0.1	ND					
IMIDACLOPRID	0.01	ppm	0.1	ND					
CLOFENTEZINE	0.01	ppm	0.2	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
COUMAPHOS	0.005	ppm	0.05	ND					
MALATHION	0.01	ppm	0.05	ND					
CYPERMETHRIN	0.01	ppm	0.5	ND					
DAMINOZIDE	0.01	ppm	0.5	ND					
METALAXYL	0.01	ppm	0.05	ND					
DICHLORVOS	0.05	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.05	ND					
METHOMYL	0.01	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.05	ND					
MEVINPHOS	0.01	ppm	0.05	ND					
MYCLOBUTANIL	0.01	ppm	0.1	ND					
NALED	0.01	ppm	0.25	ND					
OXAMYL	0.01	ppm	0.25	ND					


Pesticides

PASSED

Analyzed by 56	Weight 1.0438g	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 - DA006568 Instrument Used : Running On :			
		Batch Date :	
Reagent	Dilution 10	Consums. ID	
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

09/25/19

Signed On



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

Sample : DA90923007-002
Harvest/LOT ID: HS-TVF0922201901
Batch# : HS-TVF0922201901
Sampled : 09/23/19
Ordered : 09/23/19

Sample Size Received : 7 gram
Total Weight/Volume : 2100 gram
Completed : 09/25/19 **Expires:** 09/25/20
Sample Method : SOP Client Method

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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
1,2-DICHLOROETHANE	0.2	ppm	2	PASS	ND
1,1-DICHLOROETHENE	0.2	ppm	8	PASS	ND
1,4-DIOXANE	22.8	ppm		PASS	ND
2-BUTANOL	140	ppm		PASS	ND
2-ETHOXYETHANOL	9.6	ppm		PASS	ND
2-PROPANOL	140	ppm	500	PASS	ND
ACETONE	140	ppm	750	PASS	ND
ACETONITRILE	6	ppm	60	PASS	ND
BENZENE	0.1	ppm	1	PASS	ND
BUTANES (ISO-BUTANE)	50	ppm	2000	PASS	ND
BUTANES (N-BUTANE)	50	ppm	2000	PASS	ND
CHLOROFORM	0.2	ppm	2	PASS	ND
ETHANOL	140	ppm	5000	PASS	ND
ETHYL ACETATE	140	ppm	400	PASS	ND
CYCLOHEXANE	232.8	ppm		PASS	ND
DICHLOROMETHANE	36	ppm		PASS	ND
ETHYL ETHER	140	ppm	500	PASS	ND
ETHYLENE OXIDE	0.5	ppm	5	PASS	ND
ETHYLBENZENE	130.2	ppm		PASS	ND
HEPTANE	140	ppm	500	PASS	ND
HEXANES (2,2-DIMETHYLBUTANE)	17.4	ppm	60	PASS	ND
HEXANES (2,3-DIMETHYLBUTANE)	17.4	ppm	60	PASS	ND
HEXANES (2-METHYLPENTANE)	17.4	ppm	60	PASS	ND
HEXANES (3-METHYLPENTANE)	17.4	ppm	60	PASS	ND
ISOPROPYL ACETATE	140	ppm		PASS	ND
METHYLENE CHLORIDE	1	ppm	125	PASS	ND
METHANOL	25	ppm	250	PASS	ND
N-HEXANE	17.4	ppm	60	PASS	ND
PENTANES (ISO-PENTANE)	140	ppm		PASS	ND
PENTANES (N-PENTANE)	50	ppm	750	PASS	ND
PENTANES (NEO-PENTANE)	50	ppm		PASS	ND
PROPANE	10	ppm	2100	PASS	ND
TETRAHYDROFURAN	43.2	ppm		PASS	ND
TOLUENE	15	ppm	150	PASS	ND
TOTAL XYLENES	15	ppm	150	PASS	ND
TRICHLOROETHYLENE	2	ppm		PASS	ND

Analyzed by 850	Weight 0.0253g	Extraction date 09/24/19 10:09:39	Extracted By 850
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Analysis Method -SOP.T.40.032
Analytical Batch -DA006576
Instrument Used :
Running On :
Batch Date :

Reagent	Dilution	Consums. ID
	1	00268767 158464 24151941

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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Jorge Segredo
 Lab Director

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 PJLA-Testing 97164


 Signature

09/25/19

Signed On



Certificate of Analysis


PASSED

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Sample : DA90923007-002
Harvest/LOT ID: HS-TVF0922201901
Batch# : HS-TVF0922201901
Sampled : 09/23/19
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Sample Size Received : 7 gram
Total Weight/Volume : 2100 gram
Completed : 09/25/19 **Expires:** 09/25/20
Sample Method : SOP Client Method

Page 5 of 5

	Microbials	PASSED
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Analyte	LOD	Result	Action Level (cfu/g)
ASPERGILLUS_TERREUS_1J2		not present in 1 gram.	
ASPERGILLUS_NIGER		not present in 1 gram.	
ASPERGILLUS_FUMIGATUS		not present in 1 gram.	
ASPERGILLUS_FLAVUS		not present in 1 gram.	
SALMONELLA_SPECIFIC_GENE		not present in 1 gram.	
ESCHERICHIA_COLI_SHIGELLA_SPP		not present in 1 gram.	

Analysis Method -SOP.T.40.043 / SOP.T.40.044 / SOP.T.40.041

Analytical Batch -DA006575 Batch Date :

Instrument Used :

Running On :

Analyzed by	Weight	Extraction date	Extracted By
513	1.0144g	09/23/19	513

Reagent	Consums. ID
092319.R01	A01
	2803018
	013
	009A
	019
	009

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	0.001	ppm	ND	0.02
AFLATOXIN_G1	0.001	ppm	ND	0.02
AFLATOXIN_B2	0.001	ppm	ND	0.02
AFLATOXIN_B1	0.001	ppm	ND	0.02
OCHRATOXIN_A	0.001	ppm	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065

Analytical Batch -DA006613

Instrument Used :

Running On :

Batch Date :

Analyzed by	Weight	Extraction date	Extracted By
56	1g	NA	NA

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
092019.R01	052419.01	50
092319.R08	090419.01	
092319.R12		
092019.R05		
092019.R04		
092019.R06		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.0008369 ppm		<0.002	0.2
CADMIUM	0.0022201 ppm		ND	0.2
LEAD	0.0032903 ppm		ND	0.5
MERCURY	0.0028556 ppm		ND	0.1

Analyzed by	Weight	Extraction date	Extracted By
450	0.5037g	NA	NA

Analysis Method -SOP.T.40.050, SOP.T.30.052

Analytical Batch -DA006578

Instrument Used :

Running On :

Batch Date :

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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