



Certificate of Analysis

Sample: DA90523007-004
Harvest/Lot ID: HS-TSV0523201902
Cultivation Facility: N/A
Processing Facility: N/A
Seed to Sale #4785 5369 4758 5939
Batch Date :05/23/19
Batch#: HS-TSV0523201902
Sample Size Received: 5
Total Weight/Volume: N/A
Retail Product Size: N/A gram
Ordered : 05/23/19
sampled : 05/23/19
Completed: 01/16/20
Sampling Method: SOP Client Method

PASSED

Page 1 of 4

Jan 16, 2020 | CURALEAF FLORIDA LLC

19000 SW 192 STREET
MIAMI, FL, 33187, US



PRODUCT IMAGE



SAFETY RESULTS



Pesticides
PASSED



Heavy Metals
PASSED



Microbials
PASSED



Mycotoxins
PASSED



Residuals Solvents
PASSED



Filtch
NOT TESTED



Water Activity
NOT TESTED



Moisture
NOT TESTED



Terpenes
NOT TESTED

MISC.

CANNABINOID RESULTS



Total THC
86.182%



Total CBD
0.120%



Total Cannabinoids
92.331%

	TOTAL CA	TOTAL CB	TOTAL TH	CBC	CBGA	CBG	THCV	D8-THC	CBDV	CBN	CBDA	CBD	THCA	D9-THC
%	92.3310	0.1200	86.1820	1.6810	0.0960	3.6250	0.2250	ND	ND	0.3920	ND	0.1200	0.0790	86.1130
mg/g	923.3100	1.2000	861.8200	16.8100	0.9600	36.2500	2.2500	ND	ND	3.9200	ND	1.2000	0.7900	861.1300
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	0.0010	0.0001
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

Cannabinoid Profile Test

Analyzed by 372 Analysis Method -SOP.T.40.020, SOP.T.30.050 Analytical Batch -DA003514	Weight 0.1055g Instrument Used : DA-LC-001	Extraction date : 0000-00-00 00:00:00	Extracted By : Batch Date : 05/23/19 12:12:41
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Reagent 052219.R09 052319.R10 052219.R08 052219.R07	Dilution 10	Consums. ID 180711 SFW-BX-1025 849CA-849AK 840CB-840H
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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 # n/a
ISO Accreditation # 97164



Signature

01/16/20

Signed On



Certificate of Analysis

PASSED

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

Sample : DA90523007-004
Harvest/LOT ID: HS-TSV0523201902

Batch# : HS-TSV0523201902
Sampled : 05/23/19
Ordered : 05/23/19

Sample Size Received : 5
Total Weight/Volume : N/A
Completed : 01/16/20 Expires: 01/16/21
Sample Method : SOP Client Method

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Pesticides

PASSED

Pesticides	LOD	Units	Action Level	Result	Pesticides	LOD	Units	Action Level	Result
CHLORDANE	0.005	ppm	0.1	ND	OXAMYL	0.01	ppm	0.5	ND
CAPTAN	0.05	ppm	0.7	ND	PACLOBUTRAZOL	0.01	ppm	0.1	ND
BOSCALID	0.01	PPM	0.1	ND	TRANS-PERMETHRIN	0.05	ppm	0.1	ND
DIMETHOATE	0.01	ppm	0.1	ND	PHOSMET	0.01	ppm	0.1	ND
AZOXYSTROBIN	0.01	ppm	0.01	ND	PIPERONYL BUTOXIDE	0.01	ppm	3	ND
ABAMECTIN B1A	0.02	ppm	0.1	ND	PRALLETHRIN	0.05	ppm	0.1	ND
CIS-PERMETHRIN	0.05	ppm	0.1	ND	PROPICONAZOLE	0.01	ppm	0.1	ND
SPINETORAM	0.01	PPM	0.2	ND	PROPOXUR	0.01	ppm	0.1	ND
ACEPHATE	0.001	ppm	0.1	ND	PYRETHRIN I	0.01	ppm	0.5	ND
FENOXYCARB	0.01	ppm	0.1	ND	PYRIDABEN	0.01	ppm	0.2	ND
DIMETHOMORPH	0.005	ppm	0.2	ND	SPINOSAD (SPINOSYN A)	0.01	ppm	0.1	ND
BIFENAZATE	0.01	ppm	0.1	ND	SPINOSAD (SPINOSYN D)	0.01	ppm	0.1	ND
ETHOPROPHOS	0.01	ppm	0.1	ND	SPIROMESIFEN	0.01	ppm	0.1	ND
ACEQUINOCYL	0.01	ppm	0.1	ND	SPIROTETRAMAT	0.02	ppm	0.1	ND
ACETAMIPROD	0.01	ppm	0.1	ND	SPIROXAMINE	0.01	ppm	0.1	ND
ETOFENPROX	0.01	ppm	0.1	ND	TEBUCONAZOLE	0.01	ppm	0.1	ND
BIFENTHRIN	0.01	ppm	0.1	0.020	THIACLOPRID	0.01	ppm	0.1	ND
ALDICARB	0.02	ppm	0.1	ND	THIAMETHOXAM	0.01	ppm	0.5	ND
ETOXAZOLE	0.01	ppm	0.1	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	ND
FENPYROXIMATE	0.01	ppm	0.1	ND					
FIPRONIL	0.02	ppm	0.1	ND					
FENHEXAMID	0.01	ppm	0.1	ND					
CARBARYL	0.01	ppm	0.5	ND					
CARBOFURAN	0.01	ppm	0.1	ND					
FLONICAMID	0.01	ppm	0.1	ND					
FLUDIOXONIL	0.01	ppm	0.1	ND					
CHLORFENAPYR	0.01	ppm	0.1	ND					
CHLORANTRANILIPROLE	0.01	ppm	1	ND					
HEXYTHIAZOX	0.01	ppm	0.1	ND					
CHLORPYRIFOS	0.01	ppm	0.1	ND					
IMAZALIL	0.01	ppm	0.1	ND					
MALATHION	0.01	ppm	0.2	ND					
CLOFENTEZINE	0.01	ppm	0.2	ND					
DAMINOZIDE	0.02	ppm	0.1	ND					
IMIDACLOPRID	0.01	ppm	0.4	ND					
METALAXYL	0.01	ppm	0.02	ND					
DICHLORVOS	0.05	ppm	0.1	ND					
METHIOCARB	0.01	ppm	0.05	ND					
COUMAPHOS	0.005	ppm	0.1	ND					
METHOMYL	0.01	ppm	0.1	ND					
KRESOXIM-METHYL	0.01	ppm	0.1	ND					
DIAZANON	0.01	ppm	0.1	ND					
CYPERMETHRIN	0.01	ppm	0.5	ND					
MEVINPHOS	0.01	ppm	0.1	ND					
MYCLOBUTANIL	0.01	ppm	0.1	ND					
NALED	0.01	ppm	0.25	ND					



Pesticides

PASSED

Analyzed by 56	Weight 1.0021g	Extraction date 0000-00-00 00:00:00	Extracted By
<small>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</small>			
<small>Analytical Batch - DA003516</small>			
<small>Instrument Used : LCMS E-SHI-039</small>			
<small>Running On : Batch Date : 05/23/19 13:23:47</small>			

Reagent	Dilution	Consums. ID
<small>052119.806</small>	1	<small>180711 280653964</small>

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 # n/a
ISO Accreditation # 97164



Signature

01/16/20
Signed On



Certificate of Analysis

PASSED

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

Sample : DA90523007-004
Harvest/LOT ID: HS-TSV0523201902
Batch# : HS-TSV0523201902
Sampled : 05/23/19
Ordered : 05/23/19

Sample Size Received : 5
Total Weight/Volume : N/A
Completed : 01/16/20 Expires: 01/16/21
Sample Method : SOP Client Method

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Residual Solvents

PASSED



Residual Solvents

PASSED

Solvent	LOD	Units	Action Level (PPM)	Pass/Fail	Result
PROPANE	120	ppm	2100	PASS	ND
BUTANES (N-BUTANE)	96	ppm		PASS	ND
ETHYLENE OXIDE	0.6	ppm	5	PASS	ND
METHANOL	22.5	ppm	250	PASS	<100.000
ETHANOL	90	ppm	5000	PASS	ND
PENTANES (N-PENTANE)	67.5	ppm		PASS	ND
ETHYL ETHER	45	ppm	500	PASS	ND
ACETONE	67.5	ppm	750	PASS	ND
2-PROPANOL	45	ppm	500	PASS	ND
ACETONITRILE	5.4	ppm	60	PASS	ND
DICHLOROMETHANE	11.25	ppm	125	PASS	ND
N-HEXANE	4.5	ppm	250	PASS	<17.400
ETHYL ACETATE	36	ppm	400	PASS	ND
BENZENE	0.09	ppm	1	PASS	ND
HEPTANE	45	ppm	500	PASS	ND
TOLUENE	13.5	ppm	150	PASS	<130.199
CHLOROFORM	0.18	ppm	2	PASS	ND
1,2-DICHLOROETHANE	0.18	ppm	2	PASS	ND
TRICHLOROETHYLENE	2.25	ppm	25	PASS	ND
1,1-DICHLOROETHENE	1	ppm	8	PASS	ND
TOTAL XYLENES	13.5	ppm	150	PASS	ND

Analyzed by	Weight	Extraction date	Extracted By
585	0.0220g	0000-00-00 00:00:00	
Analysis Method -SOP.T.40.032			
Analytical Batch -DA003501			
Instrument Used : Headspace GCMS 2			
Running On :			
Batch Date : 05/23/19 09:15:24			
Reagent	Dilution	Consums. ID	
	1	00263624 unknown-022519.01 00252287 24150157	

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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01/16/20

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Certificate of Analysis

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

Sample : DA90523007-004
Harvest/LOT ID: HS-TSV0523201902
Batch# : HS-TSV0523201902
Sampled : 05/23/19
Ordered : 05/23/19

Sample Size Received : 5
Total Weight/Volume : N/A
Completed : 01/16/20 Expires: 01/16/21
Sample Method : SOP Client Method

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Microbials

PASSED

Analyte	LOD	Result	Action Level (cfu/g)
ASPERGILLUS_TERREUS_IJ2		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 -DA003552 Batch Date : 05/24/19
Instrument Used :
Running On :

Analyzed by	Weight	Extraction date	Extracted By
513	1g	0000-00-00 00:00:00	

Reagent

052319.R09
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

Analyte	LOD	Units	Result	Action Level (PPM)
AFLATOXIN G2	0.002	ppm	ND	
AFLATOXIN G1	0.002	ppm	ND	
AFLATOXIN B2	0.002	ppm	ND	
AFLATOXIN B1	0.002	ppm	ND	
OCHRATOXIN A+	0.002	ppm	ND	0.02
TOTAL AFLATOXINS	0.02	PPM	ND	0.02

Analysis Method -SOP.T.30.065, SOP.T.40.065
Analytical Batch -DA003517
Instrument Used : LCMS E-SHI-039
Running On :
Batch Date : 05/23/19 13:36:45

Analyzed by	Weight	Extraction date	Extracted By
56	1g	0000-00-00 00:00:00	

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 <20µg/Kg.



Heavy Metals

PASSED

Reagent	Reagent	Reagent	Dilution
051719.R03	050919.R23	051619.R03	50
052319.R02	051319.R05	050819.01	
052119.R09	052319.R05		
040219.21	052319.R06		
052319.R03	052319.R07		
052319.R04	052319.R08		

Metal	LOD	Unit	Result	Action Level (PPM)
ARSENIC	0.01	PPM	ND	0.2
CADMIUM	0.01	PPM	ND	0.2
LEAD	0.01	PPM	ND	0.5
MERCURY	0.01	PPM	ND	0.1

Analyzed by	Weight	Extraction date	Extracted By
450	0.2631g	0000-00-00 00:00:00	

Analysis Method -SOP.T.40.050, SOP.T.30.052
Analytical Batch -DA003499
Instrument Used : ICPMS-2030
Running On :
Batch Date : 05/23/19 09:01:39

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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