



# Certificate of Analysis

**Sample:GA20702001-012**
**Harvest/Lot ID: ORFCS163-2206-11372**
**Batch#: RNTZ-3U-050122-4-P2**
**Cultivation Facility: Gainesville Cultivation**
**Processing Facility : Gainesville Processing**
**Seed to Sale# ORFCS163-2206-11372**
**Batch Date: 06/28/22**
**Sample Size Received: 16 gram**
**Total Batch Size: 617 gram**
**Retail Product Size: 1 gram**
**Ordered : 07/02/22**
**Sampled : 07/02/22**
**Completed: 07/05/22**
**Sampling Method: SOP.T.20.010.FL**
**PASSED**












Page 1 of 6

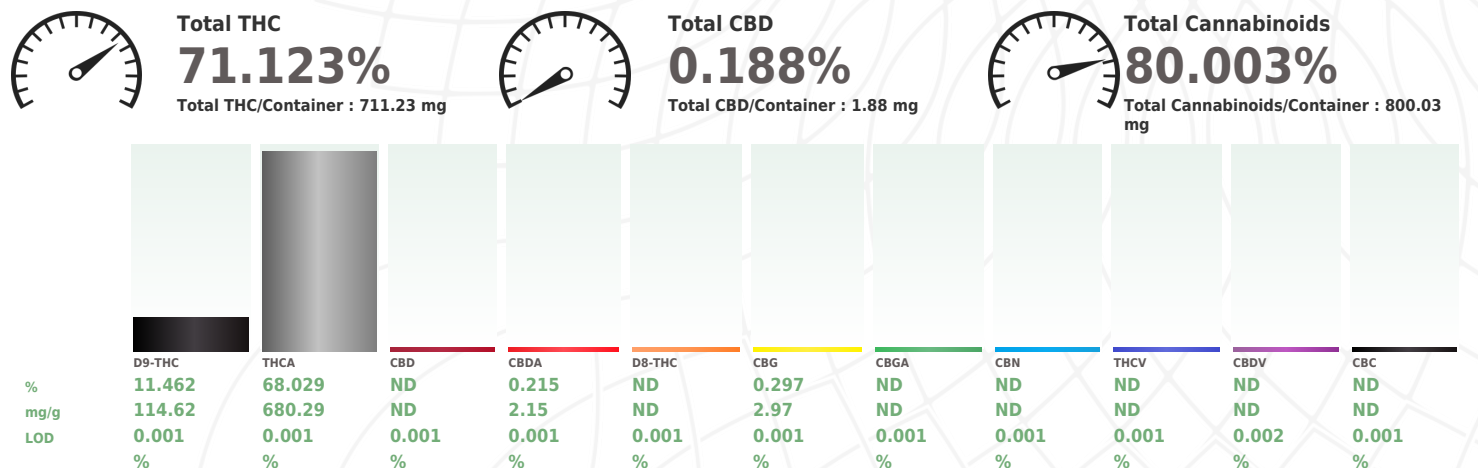
Jul 05, 2022 | Liberty Health Sciences, FL

18770 N CR 225

Gainesville, FL, 32609, US



PRODUCT IMAGE	SAFETY RESULTS								MISC.
	 <b>Pesticides PASSED</b>	 <b>Heavy Metals PASSED</b>	 <b>Microbials PASSED</b>	 <b>Mycotoxins PASSED</b>	 <b>Residuals Solvents PASSED</b>	 <b>Filtration PASSED</b>	 <b>Water Activity PASSED</b>	 <b>Moisture NOT TESTED</b>	 <b>Terpenes TESTED</b>
 <b>Cannabinoid</b>									<b>PASSED</b>



<b>Analyzed by:</b> 3404, 3134, 3205, 1541, 2338  <b>Analysis Method :</b> SOP.T.40.031, SOP.T.30.031 <b>Analytical Batch :</b> GA046300POT <b>Instrument Used :</b> GA-HPLC-001 2030C Plus <b>Running on :</b> 07/05/22 07:47:08  <b>Dilution :</b> 400 <b>Reagent :</b> 061122.R33; 062122.R33; 013122.10; 062822.32; 061621.03 <b>Consumables :</b> 947.271; 470228-424; 9291.271; LLS-00-0005; 12455-202CD-202C; R0NB32898; 29802917; 000000146137; 944C4 944J; 209598; 206639 <b>Pipette :</b> GA-002; GA-006; GA-013; GA-209 Dispenser	<b>Weight:</b> 0.0973g	<b>Extraction date:</b> 07/03/22 09:44:08  <b>Reviewed On :</b> 07/05/22 12:28:55 <b>Batch Date :</b> 07/01/22 18:32:51	<b>Extracted by:</b> 3134
---	---------------------------	---	------------------------------

Full Spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection in accordance with F.S. Rule 64ER20-39.



# Certificate of Analysis

**PASSED**

Liberty Health Sciences, FL

18770 N CR 225

Gainesville, FL, 32609, US

Telephone: (833) 254-4877

Email: Qualityassurance@libertyhealthsciences.com

Sample : GA20702001-012

Harvest/Lot ID: ORFCS163-2206-11372

Batch# : RNTZ-3U-050122-4-P2

Sampled : 07/02/22

Ordered : 07/02/22

Sample Size Received : 16 gram

Total Batch Size : 617 gram

Completed : 07/05/22 Expires: 07/05/23

Sample Method : SOP.T.20.010

Page 2 of 6



## Terpenes

**TESTED**

Terpenes	LOD (%)	mg/g	%	Result (%)	Terpenes	LOD (%)	mg/g	%	Result (%)
CAMPHENE	0.007	ND	ND		GERANIOL	0.007	ND	ND	
BETA-MYRCENE	0.007	0.52	0.052		PULEGONE	0.007	ND	ND	
3-CARENE	0.007	ND	ND		ALPHA-CEDRENE	0.007	ND	ND	
ALPHA-PHELLANDRENE	0.007	ND	ND		ALPHA-HUMULENE	0.007	3.42	0.342	
OCIMENE	0.007	ND	ND		TRANS-NEROLIDOL	0.007	1.48	0.148	
EUCALYPTOL	0.007	ND	ND		GUAJOL	0.007	<0.2	<0.02	
LINALOOL	0.007	6.05	0.605		Analyzed by: 3404, 3599, 2155, 3205, 1541 Weight: 0.9572g Extraction date: 07/02/22 14:02:59 Extracted by: 3599				
FENCHONE	0.007	ND	ND		Analysis Method : SOP.T.30.061A.FL, SOP.T.40.061A.FL Analytical Batch : GA046287TER Instrument Used : GA-GCMS-002 QP2010S Running on : 07/02/22 17:34:18 Reviewed On : 07/03/22 19:40:17 Batch Date : 07/01/22 12:08:07				
ISOPULEGOL	0.007	ND	ND		Dilution : 50 Reagent : 050322.48 Consumables : 947.109; 470228-424; 9291.271; LLS-00-0005; 210419634; RONB32898; 000000146137; 944C4 944; 210268 Pipette : GA-211 Dispenser				
ISOBORNEOL	0.007	ND	ND		Terpenoid testing is performed utilizing Gas Chromatography Mass Spectrometry.				
HEXAHYDROTHYMOL	0.007	ND	ND						
NEROL	0.007	ND	ND						
GERANYL ACETATE	0.007	ND	ND						
BETA-CARYOPHYLLENE	0.007	10.35	1.035						
VALENCENE	0.007	ND	ND						
CIS-NEROLIDOL	0.007	ND	ND						
CEDROL	0.007	ND	ND						
FARNESENE	0	1.05	0.105						
CARYOPHYLLENE OXIDE	0.007	0.37	0.037						
ALPHA-BISABOLOL	0.007	0.96	0.096						
ALPHA-PINENE	0.007	ND	ND						
SABINENE	0.007	ND	ND						
BETA-PINENE	0.007	ND	ND						
ALPHA-TERPINENE	0.007	ND	ND						
LIMONENE	0.007	1.05	0.105						
GAMMA-TERPINENE	0.007	ND	ND						
TERPINOLENE	0.007	0.25	0.025						
SABINENE HYDRATE	0.007	ND	ND						
FENCHYL ALCOHOL	0.007	1.37	0.137						
CAMPHOR	0.013	ND	ND						
BORNEOL	0.013	<0.4	<0.04						
Total (%)			2.828						



# Certificate of Analysis

**PASSED**

Liberty Health Sciences, FL

18770 N CR 225

Gainesville, FL, 32609, US

Telephone: (833) 254-4877

Email: Qualityassurance@libertyhealthsciences.com

Sample : GA20702001-012

Harvest/Lot ID: ORFCS163-2206-11372

Batch# : RNTZ-3U-050122-4-P2

Sampled : 07/02/22

Ordered : 07/02/22

Sample Size Received : 16 gram

Total Batch Size : 617 gram

Completed : 07/05/22 Expires: 07/05/23

Sample Method : SOP.T.20.010

Page 3 of 6



## Pesticides

**PASSED**

Pesticide	LOD	Units	Action Level	Pass/Fail	Result	Pesticide	LOD	Units	Action Level	Pass/Fail	Result
ABAMECTIN B1A	0.01	ppm	0.1	PASS	ND	PROPOXUR	0.01	ppm	0.1	PASS	ND
ACEPHATE	0.01	ppm	0.1	PASS	ND	PYRETHRINS	0.01	ppm	0.5	PASS	ND
ACEQUINOCYL	0.01	ppm	0.1	PASS	ND	PYRIDABEN	0.01	ppm	0.2	PASS	ND
ACETAMIPRID	0.01	ppm	0.1	PASS	ND	SPIROMESIFEN	0.01	ppm	0.1	PASS	ND
ALDICARB	0.01	ppm	0.1	PASS	ND	SPIROTETRAMAT	0.01	ppm	0.1	PASS	ND
AZOXYSTROBIN	0.01	ppm	0.1	PASS	ND	SPIROXAMINE	0.01	ppm	0.1	PASS	ND
BIFENAZATE	0.01	ppm	0.1	PASS	ND	TEBUCONAZOLE	0.01	ppm	0.1	PASS	ND
BIFENTHRIN	0.01	ppm	0.1	PASS	ND	THIACLOPRID	0.01	ppm	0.1	PASS	ND
BOSCALID	0.01	PPM	0.1	PASS	ND	THIAMETHOXAM	0.01	ppm	0.5	PASS	ND
CARBARYL	0.01	ppm	0.5	PASS	ND	TRIFLOXYSTROBIN	0.01	ppm	0.1	PASS	ND
CARBOFURAN	0.01	ppm	0.1	PASS	ND	PENTACHLORONITROBENZENE (PCNB) *	0.01	PPM	0.15	PASS	ND
CHLORANTRANILIPROLE	0.01	ppm	1	PASS	ND	PARATHION-METHYL *	0.01	PPM	0.1	PASS	ND
CHLORMEQUAT CHLORIDE	0.01	ppm	1	PASS	ND	CAPTAN *	0.07	PPM	0.7	PASS	ND
CHLORPYRIFOS	0.01	ppm	0.1	PASS	ND	CHLORDANE *	0.01	PPM	0.1	PASS	ND
CLOFENTZINE	0.01	ppm	0.2	PASS	ND	CHLORFENAPYR *	0.01	PPM	0.1	PASS	ND
COUMAPHOS	0.01	ppm	0.1	PASS	ND	CYFLUTHRIN *	0.05	PPM	0.5	PASS	ND
DAMINOZIDE	0.01	ppm	0.1	PASS	ND	CYPERMETHRIN *	0.05	PPM	0.5	PASS	ND
DIAZINON	0.01	ppm	0.1	PASS	ND						
DICHLORVOS	0.01	ppm	0.1	PASS	ND	Analyzed by:	Weight:	Extraction date:	Extracted by:		
DIMETHOATE	0.01	ppm	0.1	PASS	ND	3404, 3134, 2338, 3298	0.8944g	07/03/22 09:44:47	3134		
ETHOPROPHOS	0.01	ppm	0.1	PASS	ND	Analysis Method : SOP.T.30.101.FL, SOP.T.30.102.FL, SOP.T.30.151.FL, SOP.T.40.101.FL, SOP.T.40.102.FL, SOP.T.40.151.FL					
ETOFENPROX	0.01	ppm	0.1	PASS	ND	Analytical Batch : GA046333PES					
ETOXAZOLE	0.01	ppm	0.1	PASS	ND	Instrument Used : GA-LCMS-001 PES				Reviewed On : 07/05/22 12:35:28	
FENHEXAMID	0.01	ppm	0.1	PASS	ND	Running on : 07/03/22 12:19:36				Batch Date : 07/02/22 13:56:37	
FENOXYCARB	0.01	ppm	0.1	PASS	ND	Dilution : 10					
FENPYROXIMATE	0.01	ppm	0.1	PASS	ND	Reagent : 060422.R36; 061222.R01; 010421.S1; 061422.R02					
FIPRONIL	0.01	ppm	0.1	PASS	ND	Consumables : 947.271; 470228-424; 9291.271; LLS-00-0005; 89012-780; 296055173; 209598					
FLONICAMID	0.01	ppm	0.1	PASS	ND	Pipette : GA-002; GA-210 Dispenser					
FLUDIOXONIL	0.01	ppm	0.1	PASS	ND	Testing for agricultural agents is performed utilizing Liquid Chromatography Triple-Quadrupole Mass Spectrometry and Gas Chromatography Triple-Quadrupole Mass Spectrometry in accordance with F.S. Rule 64ER20-39.					
HEXYTHIAZOX	0.01	ppm	0.1	PASS	ND	Analyzed by:	Weight:	Extraction date:	Extracted by:		
IMAZALIL	0.01	ppm	0.1	PASS	ND	N/A	N/A	N/A	N/A		
IMIDACLOPRID	0.01	ppm	0.4	PASS	ND	Analysis Method : SOP.T.30.060, SOP.T.40.060					
KRESOXIM-METHYL	0.01	ppm	0.1	PASS	ND	Analytical Batch : GA046348VOL				Reviewed On : 07/05/22 08:25:34	
MALATHION	0.01	ppm	0.2	PASS	ND	Instrument Used : GA-GCMS-006				Batch Date : 07/03/22 10:59:30	
METALAXYL	0.01	ppm	0.1	PASS	ND	Running on : 07/03/22 17:26:16					
METHIOCARB	0.01	ppm	0.1	PASS	ND	Dilution : 100					
METHOMYL	0.01	ppm	0.1	PASS	ND	Reagent : 052322.R02; 060422.R36; 061222.R01; 010421.S1; 061522.R52					
MEVINPHOS	0.01	ppm	0.1	PASS	ND	Consumables : 947.271; 470228-424; 9291.271; LLS-00-0005; 89012-780; 296055173; 944C4 944J; 209598; 206639; 15144001					
MYCLOBUTANIL	0.01	ppm	0.1	PASS	ND	Pipette : GA-002; GA-006; GA-013; GA-210 Dispenser					
NALED	0.01	ppm	0.25	PASS	ND	Testing for agricultural agents is performed utilizing Liquid Chromatography Triple-Quadrupole Mass Spectrometry and Gas Chromatography Triple-Quadrupole Mass Spectrometry in accordance with F.S. Rule 64ER20-39.					
OXAMYL	0.01	ppm	0.5	PASS	ND						
PACLOBUTRAZOL	0.01	ppm	0.1	PASS	ND						
PHOSMET	0.01	ppm	0.1	PASS	ND						
PIPERONYL BUTOXIDE	0.01	ppm	3	PASS	ND						
PRALLETHRIN	0.01	ppm	0.1	PASS	ND						
PROPICONAZOLE	0.01	ppm	0.1	PASS	ND						





# Certificate of Analysis

**PASSED**

Liberty Health Sciences, FL

18770 N CR 225

Gainesville, FL, 32609, US

Telephone: (833) 254-4877

Email: Qualityassurance@libertyhealthsciences.com

Sample : GA20702001-012

Harvest/Lot ID: ORFCS163-2206-11372

Batch# : RNTZ-3U-050122-4-P2

Sampled : 07/02/22

Ordered : 07/02/22

Sample Size Received : 16 gram

Total Batch Size : 617 gram

Completed : 07/05/22 Expires: 07/05/23

Sample Method : SOP.T.20.010

Page 4 of 6



## Residual Solvents

**PASSED**

Solvents	LOD	Units	Action Level	Pass/Fail	Result
METHANOL	25	ppm	250	PASS	ND
ETHANOL	500	ppm	5000	PASS	<2500
PENTANES (N-PENTANE)	75	ppm	750	PASS	ND
ETHYL ETHER	50	ppm	500	PASS	ND
ACETONE	75	ppm	750	PASS	ND
2-PROPANOL	50	ppm	500	PASS	ND
ACETONITRILE	6	ppm	60	PASS	ND
DICHLOROMETHANE	12.5	ppm	125	PASS	ND
N-HEXANE	25	ppm	250	PASS	ND
ETHYL ACETATE	40	ppm	400	PASS	ND
BENZENE	0.1	ppm	1	PASS	ND
HEPTANE	500	ppm	5000	PASS	ND
TOLUENE	15	ppm	150	PASS	ND
PROPANE	500	ppm	5000	PASS	ND
CHLOROFORM	0.2	ppm	2	PASS	ND
1,2-DICHLOROETHANE	0.2	ppm	2	PASS	ND
BUTANES (N-BUTANE)	500	ppm	5000	PASS	ND
ETHYLENE OXIDE	0.5	ppm	5	PASS	ND
1,1-DICHLOROETHENE	0.8	ppm	8	PASS	ND
TRICHLOROETHYLENE	2.5	ppm	25	PASS	ND

 Analyzed by:  
 N/A

 Weight:  
 N/A

 Extraction date:  
 N/A

 Extracted by:  
 N/A

Analysis Method : SOP.T.40.041.FL

Analytical Batch : GA046328SOL

Instrument Used : GA-GCMS-004 QP2020NX

Running on : 07/02/22 17:33:28

Reviewed On : 07/03/22 13:27:40

Batch Date : 07/02/22 13:40:50

Dilution : N/A

Reagent : N/A

Consumables : N/A

Pipette : N/A

Residual solvents analysis is performed utilizing Gas Chromatography Mass Spectrometry in accordance with with F.S. Rule 64ER20-39.



# Certificate of Analysis

**PASSED**

Liberty Health Sciences, FL

18770 N CR 225

Gainesville, FL, 32609, US

Telephone: (833) 254-4877

Email: Qualityassurance@libertyhealthsciences.com

Sample : GA20702001-012

Harvest/Lot ID: ORFCS163-2206-11372

Batch# : RNTZ-3U-050122-4-P2

Sampled : 07/02/22

Ordered : 07/02/22




Sample Size Received : 16 gram

Total Batch Size : 617 gram

Completed : 07/05/22 Expires: 07/05/23

Sample Method : SOP.T.20.010

Page 5 of 6

 <b>Microbial</b>						 <b>Mycotoxins</b>						 <b>Heavy Metals</b>					
<b>PASSED</b>						<b>PASSED</b>						<b>PASSED</b>					
Analyte	LOD	Units	Result	Pass / Fail	Action Level	Analyte	LOD	Units	Result	Pass / Fail	Action Level	Metal	LOD	Units	Result	Pass / Fail	Action Level
ESCHERICHIA COLI SHIGELLA SPP			Not Present	PASS		AFLATOXIN B2	0.002	ppm	ND	PASS	0.02	ARSENIC	0.02	PPM	ND	PASS	0.2
SALMONELLA SPECIFIC GENE			Not Present	PASS		AFLATOXIN B1	0.002	ppm	ND	PASS	0.02	CADMIUM	0.02	PPM	ND	PASS	0.2
ASPERGILLUS FLAVUS			Not Present	PASS		OCHRATOXIN A	0.002	ppm	ND	PASS	0.02	MERCURY	0.02	PPM	ND	PASS	0.2
ASPERGILLUS FUMIGATUS			Not Present	PASS		AFLATOXIN G1	0.002	ppm	ND	PASS	0.02	LEAD	0.05	PPM	ND	PASS	0.5
ASPERGILLUS TERREUS			Not Present	PASS		AFLATOXIN G2	0.002	ppm	ND	PASS	0.02						
ASPERGILLUS NIGER			Not Present	PASS													
TOTAL YEAST AND MOLD	10	CFU/g	<10	PASS	100000	Analyzed by: 3404, 3134, 2338, 3298	Weight: 0.8944g	Extraction date: 07/03/22 09:44:47	Extracted by: 3134								
Analyzed by: 3404, 2821, 1541 Weight: 0.9809g Extraction date: 07/02/22 17:18:35 Extracted by: 2821 Analysis Method : SOP.T.40.041, SOP.T.40.043, SOP.T.40.045, SOP.T.40.056B, SOP.T.40.058.FL, SOP.T.40.208 Analytical Batch : GA046339MIC Instrument Used : GA-TYM-001 Tempo Filler and Reader Running on : 07/03/22 16:29:08 Dilution : 90 Reagent : 060122.01 Consumables : 2304090; 2304090; 2303260; 2303190 Pipette : GA-154; GA-213 Microbial testing is performed utilizing various technologies including: PCR, RTPCR, MPN, and traditional culture based techniques in accordance with F.S. Rule 64ER20-39.						Analysis Method : SOP.T.30.101.FL, SOP.T.40.101.FL, SOP.T.30.102.FL, SOP.T.40.102.FL Analytical Batch : GA046349MYC Instrument Used : GA-LCMS-001 MYC Running on : 07/03/22 12:19:44 Dilution : N/A Reagent : aflatoxin_b2; aflatoxin_b1; aflatoxin_g1; aflatoxin_g2 Consumables : 0.02; 0.02; 0.02; 0.02 Pipette : N/A Mycotoxins testing utilizing Liquid Chromatography with Triple-Quadrupole Mass Spectrometry in accordance with F.S. Rule 64ER20-39.						Analyzed by: 3404, 3571, 3317, 2338 Weight: 0.5426g Extraction date: 07/02/22 14:36:52 Extracted by: 3571 Analysis Method : SOP.T.30.081.FL, SOP.T.30.082.FL, SOP.T.40.081.FL, SOP.T.40.082.FL Analytical Batch : GA046292HEA Instrument Used : GA-ICPMS-002 Running on : N/A Dilution : 100 Reagent : 052422.R35; 062222.R63; 010421.48; 061621.03; 041622.R02; 051622.R03; 041722.R01; 042022.R45 Consumables : CGR0114; 12455-202CD-202C; L2019501 Pipette : GA-012; GA-183; GA - 194; GA-195; GA-193 Heavy Metals analysis is performed using Inductively Coupled Plasma Mass Spectrometry in accordance with F.S. Rule 64ER20-39.					
Analyzed by: N/A Weight: N/A Extraction date: N/A Extracted by: N/A Analysis Method : SOP.T.40.041 Analytical Batch : GA046340TYM Instrument Used : GA-TYM-001 bioMérieux Tempo Filler and Reader Running on : 07/03/22 17:03:00 Dilution : 90 Reagent : 060122.01 Consumables : 2304090; 2304090; 61630-123C6-123E Pipette : GA-154; GA-213 Total yeast and mold testing is performed utilizing MPN and traditional culture based techniques in accordance with F.S. Rule 64ER20-39.						Reviewed On : 07/05/22 12:54:17 Batch Date : 07/02/22 17:16:44 Reviewed On : 07/05/22 12:54:26 Batch Date : 07/02/22 17:24:20 Reviewed On : 07/03/22 10:08:27 Batch Date : 07/01/22 12:21:36											



# Certificate of Analysis

**PASSED**

Liberty Health Sciences, FL

18770 N CR 225

Gainesville, FL, 32609, US

Telephone: (833) 254-4877

Email: Qualityassurance@libertyhealthsciences.com

Sample : GA20702001-012

Harvest/Lot ID: ORFCS163-2206-11372

Batch# : RNTZ-3U-050122-4-P2

Sampled : 07/02/22

Ordered : 07/02/22

Sample Size Received : 16 gram

Total Batch Size : 617 gram

Completed : 07/05/22 Expires: 07/05/23

Sample Method : SOP.T.20.010

Page 6 of 6


**Filth/Foreign Material**
**PASSED**

Analyte	LOD	Units	Result	P/F	Action Level
Filth and Foreign Material	1	%	ND	PASS	5

Analyzed by: 3404, 3134, 1541	Weight: 15.2g	Extraction date: 07/02/22 13:01:46	Extracted by: 3134
----------------------------------	------------------	---------------------------------------	-----------------------

Analysis Method : SOP.T.30.074, SOP.T.40.074

Analytical Batch : GA046323FIL

Instrument Used : GA-Filth/Foreign Material Microscope

Running on : N/A

Reviewed On : 07/02/22 18:08:18

Batch Date : 07/02/22 13:01:26

Dilution : N/A

Reagent : N/A

Consumables : N/A

Pipette : N/A

Filth and foreign material inspection is performed by visual inspection utilizing naked eye and microscope technologies in accordance with F.S. Rule 64ER20-39.


**Water Activity**
**PASSED**

Analyte	LOD	Units	Result	P/F	Action Level
Water Activity	0.1	aw	0.603	PASS	0.85

Analyzed by: 3404, 3599, 1541	Weight: 0.5308g	Extraction date: 07/02/22 16:34:55	Extracted by: 3599
----------------------------------	--------------------	---------------------------------------	-----------------------

Analysis Method : SOP.T.40.019

Analytical Batch : GA046330WAT

Instrument Used : GA-203 Rotronic HygroPalm

Running on : N/A

Reviewed On : 07/02/22 17:56:06

Batch Date : 07/02/22 13:50:30

Dilution : N/A

Reagent : N/A

Consumables : 107264

Pipette : N/A

Water Activity is performed using a Rotronic HygroPalm HP 23-AW in accordance with F.S. Rule 64ER20-39.