



12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794



**Report Number:** 22-013266/D006.R003  
**Report Date:** 11/09/2022  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/28/22 13:10

This is an amended version of report# 22-013266/D006.R002.  
 Reason: Updated reporting units.

**Customer:** R&R  
**Product identity:** R&R 1000mg Full Spectrum Cream - Lot 3103  
**Client/Metric ID:** .  
**Laboratory ID:** 22-013266-0002

### Summary

**Potency:**

Analyte per 2.7g	Result	Limits	Units	Status	
CBC per 2.7g	1.19		mg/2.7g		CBD-Total per Serving Size 34.8 mg/2.7g
CBD per 2.7g	34.0		mg/2.7g		
CBD-A per 2.7g	0.886		mg/2.7g		THC-Total per Serving Size 1.36 mg/2.7g
CBDV per 2.7g	0.134		mg/2.7g		
CBG per 2.7g	0.543		mg/2.7g		CBD-Total per Serving Size 1040 mg/81g
CBN per 2.7g	0.113		mg/2.7g		
CBT per 2.7g	0.637		mg/2.7g		THC-Total per Serving Size 40.7 mg/81g
Δ9-THC per 2.7g	1.36		mg/2.7g		
Analyte per 81g	Result	Limits	Units	Status	(Reported in milligrams per serving)
CBC per 81g	35.6		mg/81g		
CBD per 81g	1020		mg/81g		
CBD-A per 81g	26.6		mg/81g		
CBDV per 81g	4.03		mg/81g		
CBG per 81g	16.3		mg/81g		
CBN per 81g	3.39		mg/81g		
CBT per 81g	19.1		mg/81g		
Δ9-THC per 81g	40.7		mg/81g		

**Residual Solvents:**

All analytes passing and less than LOQ.

**Pesticides:**

All analytes passing and less than LOQ.

**Terpenes:**

Less than LOQ for all analytes.

**Metals:**

Less than LOQ for all analytes.



**Customer:** R&R  
 United States of America (USA)  
**Product identity:** R&R 1000mg Full Spectrum Cream - Lot 3103  
**Client/Metric ID:** .  
**Sample Date:**  
**Laboratory ID:** 22-013266-0002  
**Evidence of Cooling:** No  
**Temp:** 18.8 °C  
**Relinquished by:** usps  
**Serving Size #1:** 2.7 g  
**Serving Size #2:** 81 g



### Sample Results

Potency per 2.7g	Method: J AOAC 2015 V98-6 (mod) <sup>b</sup>	Units mg/se	Batch: 2209356	Analyze: 11/1/22 4:37:00 AM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 2.7g	1.19		mg/2.7g	0.0857	
CBC-A per 2.7g	< LOQ		mg/2.7g	0.0803	
CBC-Total per 2.7g	1.19		mg/2.7g	0.161	
CBD per 2.7g	34.0		mg/2.7g	0.857	
CBD-A per 2.7g	0.886		mg/2.7g	0.0857	
CBD-Total per 2.7g	34.8		mg/2.7g	0.932	
CBDV per 2.7g	0.134		mg/2.7g	0.0857	
CBDV-A per 2.7g	< LOQ		mg/2.7g	0.0803	
CBDV-Total per 2.7g	< LOQ		mg/2.7g	0.160	
CBE per 2.7g	< LOQ		mg/2.7g	0.0803	
CBG per 2.7g	0.543		mg/2.7g	0.0857	
CBG-A per 2.7g	< LOQ		mg/2.7g	0.0803	
CBG-Total per 2.7g	0.543		mg/2.7g	0.160	
CBL per 2.7g	< LOQ		mg/2.7g	0.0803	
CBL-A per 2.7g	< LOQ		mg/2.7g	0.0803	
CBL-Total per 2.7g	< LOQ		mg/2.7g	0.151	
CBN per 2.7g	0.113		mg/2.7g	0.0857	
CBT per 2.7g	0.637		mg/2.7g	0.0857	
Δ8-THCV per 2.7g	< LOQ		mg/2.7g	0.0803	
Δ10-THC per 2.7g	< LOQ		mg/2.7g	0.0803	
Δ8-THC per 2.7g	< LOQ		mg/2.7g	0.0803	
Δ9-THC per 2.7g	1.36		mg/2.7g	0.0857	
exo-THC per 2.7g	< LOQ		mg/2.7g	0.0803	
THC-A per 2.7g	< LOQ		mg/2.7g	0.0803	
THC-Total per 2.7g	1.36		mg/2.7g	0.161	
THCV per 2.7g	< LOQ		mg/2.7g	0.0803	
THCV-A per 2.7g	< LOQ		mg/2.7g	0.0803	
THCV-Total per 2.7g	< LOQ		mg/2.7g	0.151	
Total Cannabinoids per 2.7g	38.9		mg/2.7g		



12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794



**Report Number:** 22-013266/D006.R003  
**Report Date:** 11/09/2022  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/28/22 13:10

Potency per 81g      **Method:** J AOAC 2015 V98-6 (mod)<sup>b</sup>      **Units** mg/se **Batch:** 2209356      **Analyze:** 11/1/22 4:37:00 AM

Analyte	Result	Limits	Units	LOQ	Notes
CBC per 81g	35.6		mg/81g	2.57	
CBC-A per 81g	< LOQ		mg/81g	2.41	
CBC-Total per 81g	35.6		mg/81g	4.83	
CBD per 81g	1020		mg/81g	25.7	
CBD-A per 81g	26.6		mg/81g	2.57	
CBD-Total per 81g	1040		mg/81g	28.0	
CBDV per 81g	4.03		mg/81g	2.57	
CBDV-A per 81g	< LOQ		mg/81g	2.41	
CBDV-Total per 81g	< LOQ		mg/81g	4.80	
CBE per 81g	< LOQ		mg/81g	2.41	
CBG per 81g	16.3		mg/81g	2.57	
CBG-A per 81g	< LOQ		mg/81g	2.41	
CBG-Total per 81g	16.3		mg/81g	4.80	
CBL per 81g	< LOQ		mg/81g	2.41	
CBL-A per 81g	< LOQ		mg/81g	2.41	
CBL-Total per 81g	< LOQ		mg/81g	4.53	
CBN per 81g	3.39		mg/81g	2.57	
CBT per 81g	19.1		mg/81g	2.57	
Δ8-THCV per 81g	< LOQ		mg/81g	2.41	
Δ10-THC per 81g	< LOQ		mg/81g	2.41	
Δ8-THC per 81g	< LOQ		mg/81g	2.41	
Δ9-THC per 81g	40.7		mg/81g	2.57	
exo-THC per 81g	< LOQ		mg/81g	2.41	
THC-A per 81g	< LOQ		mg/81g	2.41	
THC-Total per 81g	40.7		mg/81g	4.83	
THCV per 81g	< LOQ		mg/81g	2.41	
THCV-A per 81g	< LOQ		mg/81g	2.41	
THCV-Total per 81g	< LOQ		mg/81g	4.53	
Total Cannabinoids per 81g	1170		mg/81g		

-----



12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794



**Report Number:** 22-013266/D006.R003  
**Report Date:** 11/09/2022  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/28/22 13:10

Solvents						Method: Residual Solvents by GC/MS <sup>b</sup>						Units µg/g		Batch 2209454		Analyze 11/03/22 02:23 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes								
2-Methylbutane (Isopentane)	< LOQ	1000	200	pass		2-Methylpentane	< LOQ	60.0	30.0	pass									
2-Propanol (IPA) <sup>‡</sup>	< LOQ	1000	200	pass		2,2-Dimethylbutane	< LOQ	6.00	30.0	pass									
2,2-Dimethylpropane (neo-pentane)	< LOQ	1000	200	pass		2,3-Dimethylbutane	< LOQ	60.0	30.0	pass									
3-Methylpentane	< LOQ	60.0	30.0	pass		Acetone <sup>‡</sup>	< LOQ	1000	200	pass									
Benzene <sup>‡</sup>	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	1000	400	pass									
Ethanol <sup>‡</sup>	< LOQ	1000	200	pass		Ethyl acetate <sup>‡</sup>	< LOQ	1000	200	pass									
Hexanes (sum)	< LOQ	60.0	150	pass		m,p-Xylene	< LOQ	430	200	pass									
Methanol <sup>‡</sup>	< LOQ	600	200	pass		Methylpropane (Isobutane)	< LOQ	1000	200	pass									
n-Butane <sup>‡</sup>	< LOQ	1000	200	pass		n-Heptane <sup>‡</sup>	< LOQ	1000	200	pass									
n-Hexane <sup>‡</sup>	< LOQ	60.0	30.0	pass		n-Pentane <sup>‡</sup>	< LOQ	1000	200	pass									
o-Xylene	< LOQ	430	200	pass		Pentanes (sum)	< LOQ	1000	600	pass									
Propane <sup>‡</sup>	< LOQ	1000	200	pass		Toluene <sup>‡</sup>	< LOQ	180	100	pass									
Total Xylenes <sup>‡</sup>	< LOQ	430	400	pass															



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-013266/D006.R003  
**Report Date:** 11/09/2022  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/28/22 13:10

Pesticides											
Method: AOAC 2007.01 & EN 15662 (mod)											
Units mg/kg Batch 2209415 Analyze 11/02/22 03:26 PM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.25	0.070	pass		Acephate	< LOQ	0.050	0.020	pass	
Acequinocyl	< LOQ	0.030	0.025	pass		Acetamidrid	< LOQ	0.050	0.050	pass	
Aldicarb	< LOQ	0.50	0.100	pass		Allethrin	< LOQ	0.10	0.100	pass	
Atrazine	< LOQ	0.0250	0.025	pass		Azadirachtin	< LOQ	1.0	0.500	pass	
Azoxystrobin	< LOQ	0.010	0.010	pass		Benzovindiflupyr	< LOQ	0.010	0.010	pass	
Bifenazate	< LOQ	0.010	0.010	pass		Bifenthrin	< LOQ	1.0	0.100	pass	
Boscalid	< LOQ	0.010	0.010	pass		Buprofezin	< LOQ	0.020	0.010	pass	
Carbaryl	< LOQ	0.025	0.025	pass		Carbofuran	< LOQ	0.010	0.010	pass	
Chlorantraniliprole	< LOQ	0.020	0.010	pass		Chlorfenapyr	< LOQ	1.5	0.100	pass	
Chlorpyrifos	< LOQ	0.50	0.010	pass		Clofentezine	< LOQ	0.010	0.010	pass	
Clothianidin	< LOQ	0.025	0.025	pass		Coumaphos	< LOQ	0.010	0.010	pass	
Cyantraniliprole	< LOQ	0.010	0.010	pass		Cyfluthrin	< LOQ	0.20	0.200	pass	
Cyhalothrin,lambda	< LOQ	0.0200	0.250	pass		Cypermethrin	< LOQ	0.30	0.300	pass	
Cyprodinil	< LOQ	0.010	0.010	pass		Daminozide	< LOQ	0.10	0.050	pass	
Deltamethrin	< LOQ	0.50	0.500	pass		Diazinon	< LOQ	0.020	0.010	pass	
Dichlorvos	< LOQ	0.050	0.050	pass		Dimethoate	< LOQ	0.010	0.010	pass	
Dimethomorph	< LOQ	0.050	0.050	pass		Dinotefuran	< LOQ	0.050	0.050	pass	
Diuron	< LOQ	0.125	0.125	pass		Dodemorph	< LOQ	0.050	0.050	pass	
Endosulfan I (alpha)	< LOQ	2.5	0.050	pass		Endosulfan II (beta)	< LOQ	2.5	0.050	pass	
Endosulfan sulfate	< LOQ	2.5	0.050	pass		Ethoprophos	< LOQ	0.010	0.010	pass	
Etofenprox	< LOQ	0.050	0.010	pass		Etozazole	< LOQ	0.020	0.010	pass	
Etridiazole	< LOQ	0.15	0.050	pass		Fenhexamid	< LOQ	0.13	0.100	pass	
Fenoxycarb	< LOQ	0.010	0.010	pass		Fenpyroximate	< LOQ	0.020	0.020	pass	
Fensulfothion	< LOQ	0.010	0.010	pass		Fenthion	< LOQ	0.010	0.010	pass	
Fenvalerate	< LOQ		0.200			Fipronil	< LOQ	0.010	0.010	pass	
Flonicamid	< LOQ	0.025	0.025	pass		Fludioxonil	< LOQ	0.010	0.010	pass	
Fluopyram	< LOQ	0.010	0.010	pass		Hexythiazox	< LOQ	0.010	0.010	pass	
Imazalil	< LOQ	0.010	0.010	pass		Imidacloprid	< LOQ	0.010	0.010	pass	
Iprodione	< LOQ	0.50	0.500	pass		Kinoprene	< LOQ	1.3	0.200	pass	
Kresoxim-methyl	< LOQ	0.15	0.010	pass		Malathion	< LOQ	0.010	0.010	pass	
Metalaxyl	< LOQ	0.010	0.010	pass		Methiocarb	< LOQ	0.010	0.010	pass	
Methomyl	< LOQ	0.025	0.025	pass		Methoprene	< LOQ	2.0	1.00	pass	
Mevinphos	< LOQ	0.025	0.025	pass		MGK-264	< LOQ	0.050	0.050	pass	
Myclobutanil	< LOQ	0.010	0.010	pass		Naled	< LOQ	0.10	0.100	pass	
Novaluron	< LOQ	0.025	0.025	pass		Oxamyl	< LOQ	1.5	0.500	pass	
Paclobotrazole	< LOQ	0.010	0.010	pass		Parathion-Methyl	< LOQ	0.050	0.030	pass	
Permethrin	< LOQ	0.50	0.040	pass		Phenothrin	< LOQ	0.050	0.025	pass	
Phosmet	< LOQ	0.020	0.010	pass		Piperonyl butoxide	< LOQ	1.3	0.200	pass	
Pirimicarb	< LOQ	0.010	0.010	pass		Prallethrin	< LOQ	0.050	0.050	pass	
Propiconazole	< LOQ	0.10	0.010	pass		Propoxur	< LOQ	0.010	0.010	pass	
Pyraclostrobin	< LOQ	0.010	0.010	pass		Pyrethrins (total)	< LOQ	0.050	0.025	pass	
Pyridaben	< LOQ	0.020	0.020	pass		Pyriproxyfen	< LOQ	0.0100	0.010	pass	
Quintozene	< LOQ	0.020	0.020	pass		Resmethrin	< LOQ	0.050	0.020	pass	
Spinetoram	< LOQ	0.010	0.010	pass		Spinosad	< LOQ	0.010	0.010	pass	
Spirodiclofen	< LOQ	0.25	0.250	pass		Spiromesifen	< LOQ	3.0	0.030	pass	
Spirotetramat	< LOQ	0.010	0.010	pass		Spiroxamine	< LOQ	0.10	0.010	pass	



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-013266/D006.R003  
**Report Date:** 11/09/2022  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/28/22 13:10

Pesticides					Method: AOAC 2007.01 & EN 15662 (mod)	Units mg/kg	Batch 2209415	Analyze 11/02/22 03:26 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Tebuconazole	< LOQ	0.010	0.010	pass		Tebufenozide	< LOQ	0.010	0.010	pass	
Teflubenzuron	< LOQ	0.025	0.025	pass		Tetrachlorvinphos	< LOQ	0.010	0.010	pass	
Tetramethrin	< LOQ	0.10	0.050	pass		Thiacloprid	< LOQ	0.010	0.010	pass	
Thiamethoxam	< LOQ	0.010	0.010	pass		Thiophanate-Methyl	< LOQ	0.050	0.030	pass	
Trifloxystrobin	< LOQ	0.010	0.010	pass							

Terpenes					Method: J AOAC 2015 V98-6	Units %	Batch 2209478	Analyze 11/02/22 06:07 PM			
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes		
Geraniol	< LOQ	0.019	0.00%		farnesene	< LOQ	0.019	0.00%			
(-)-Guaiol	< LOQ	0.019	0.00%		(+)-Cedrol	< LOQ	0.019	0.00%			
Sabinene hydrate	< LOQ	0.019	0.00%		valencene	< LOQ	0.019	0.00%			
Geranyl acetate	< LOQ	0.019	0.00%		(±)-cis-Nerolidol	< LOQ	0.019	0.00%			
a-Bisabolol	< LOQ	0.019	0.00%		(-)-a-Terpineol	< LOQ	0.019	0.00%			
(-)-caryophyllene oxide	< LOQ	0.019	0.00%		(-)-Isopulegol	< LOQ	0.019	0.00%			
(-)-β-Pinene	< LOQ	0.019	0.00%		(+)-Borneol	< LOQ	0.019	0.00%			
(+)-fenchol	< LOQ	0.019	0.00%		(+)-Pulegone	< LOQ	0.019	0.00%			
(±)-Camphor	< LOQ	0.019	0.00%		(±)-fenchone	< LOQ	0.019	0.00%			
(±)-trans-Nerolidol	< LOQ	0.019	0.00%		(R)-(+)-Limonene	< LOQ	0.019	0.00%			
a-cedrene	< LOQ	0.019	0.00%		a-phellandrene	< LOQ	0.019	0.00%			
a-pinene	< LOQ	0.019	0.00%		a-Terpinene	< LOQ	0.019	0.00%			
Camphene	< LOQ	0.019	0.00%		cis-β-Ocimene	< LOQ	0.006	0.00%			
d-3-Carene	< LOQ	0.019	0.00%		Eucalyptol	< LOQ	0.019	0.00%			
gamma-Terpinene	< LOQ	0.019	0.00%		Humulene	< LOQ	0.019	0.00%			
Isoborneol	< LOQ	0.019	0.00%		Linalool	< LOQ	0.019	0.00%			
Menthol	< LOQ	0.019	0.00%		nerol	< LOQ	0.019	0.00%			
p-Cymene	< LOQ	0.019	0.00%		Sabinene	< LOQ	0.019	0.00%			
β-Caryophyllene	< LOQ	0.019	0.00%		β-Myrcene	< LOQ	0.019	0.00%			
Terpinolene	< LOQ	0.019	0.00%		trans-β-Ocimene	< LOQ	0.012	0.00%			
<b>Total Terpenes</b>	<b>&lt; LOQ</b>										

Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes	
Arsenic	< LOQ	1.50	mg/kg	0.0803	2209388	11/01/22 AOAC 2013.06 (mod.) <sup>p</sup>	pass		
Cadmium	< LOQ	0.50	mg/kg	0.0803	2209388	11/01/22 AOAC 2013.06 (mod.) <sup>p</sup>	pass		
Lead	< LOQ	0.50	mg/kg	0.0803	2209388	11/01/22 AOAC 2013.06 (mod.) <sup>p</sup>	pass		
Mercury	< LOQ	1.50	mg/kg	0.0402	2209388	11/01/22 AOAC 2013.06 (mod.) <sup>p</sup>	pass		

Mycotoxins									
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes	
Aflatoxin B2 <sup>*</sup>	< LOQ	5.00	µg/kg	5.00	2209436	11/03/22 AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>	pass		
Aflatoxin B1 <sup>*</sup>	< LOQ	5.00	µg/kg	5.00	2209436	11/03/22 AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>	pass		
Aflatoxin G1 <sup>*</sup>	< LOQ	5.00	µg/kg	5.00	2209436	11/03/22 AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>	pass		
Aflatoxin G2 <sup>*</sup>	< LOQ	5.00	µg/kg	5.00	2209436	11/03/22 AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>	pass		
Ochratoxin A <sup>*</sup>	< LOQ	5.00	µg/kg	5.00	2209436	11/03/22 AOAC 2007.01 & EN 15662 (mod) <sup>p</sup>	pass		



These test results are representative of the individual sample selected and submitted by the client.

**Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

**Threshold Note:** Action levels per 6 CCR 1010-21 CDPHE requirements

‡ = ISO/IEC 17025:2017 accredited method.

\* = TNI accredited analyte.

**Units of Measure**

g = g

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/2.7g = Milligram per 2.7g

mg/81g = Milligram per 81g

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory



Derrick Tanner  
General Manager



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-013266/D006.R003  
**Report Date:** 11/09/2022  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 10/28/22 13:10







12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-015627/D013.R000  
**Report Date:** 01/09/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 12/21/22 12:49

**Customer:** R&R  
**Product identity:** R&R 1000mg Full Spectrum Cream - Lot 3103  
**Client/Metric ID:** .  
**Laboratory ID:** 22-015627-0002

## Summary

### Microbiology:

*Less than LOQ for all analytes.*



12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794



**Report Number:** 22-015627/D013.R000  
**Report Date:** 01/09/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 12/21/22 12:49

**Customer:** R&R  
 United States of America (USA)  
**Product identity:** R&R 1000mg Full Spectrum Cream - Lot 3103  
**Client/Metric ID:** .  
**Sample Date:**  
**Laboratory ID:** 22-015627-0002  
**Evidence of Cooling:** No  
**Temp:** 15.3 °C  
**Relinquished by:** USPS



### Sample Results

#### Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aerobic Plate Count	< LOQ	10,000	cfu/g	10	2210921	12/30/22 AOAC 990.12 (Petrifilm)	pass	
E.coli	< LOQ	100.00	cfu/g	10	2210918	12/30/22 AOAC 991.14 (Petrifilm)	pass	
Total Coliforms	< LOQ	100.00	cfu/g	10	2210918	12/30/22 AOAC 991.14 (Petrifilm)	pass	
Mold (RAPID Petrifilm)	< LOQ	1,000.	cfu/g	10	2210919	12/30/22 AOAC 2014.05 (RAPID)	pass	
Yeast (RAPID Petrifilm)	< LOQ	1,000.	cfu/g	10	2210919	12/30/22 AOAC 2014.05 (RAPID)	pass	
Salmonella spp. by PCR	Negative		/25g		2210923	12/29/22 AOAC 2020.02		
EHEC including STEC	Negative		/25g		2210926	12/29/22 AOAC RI 121806		



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Report Number:** 22-015627/D013.R000  
**Report Date:** 01/09/2023  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 12/21/22 12:49

These test results are representative of the individual sample selected and submitted by the client.

**Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

**Threshold Note:** Action levels per 6 CCR 1010-21 CDPHE requirements

**Units of Measure**

/25g = Per 25g

cfu/g = Colony forming units per gram

% wt =  $\mu\text{g/g}$  divided by 10,000

Approved Signatory

Derrick Tanner  
General Manager

**SAMPLE NAME: R&R Full Spectrum 2500mg CBD Cream**

Infused, Colorado Infused

**CULTIVATOR / MANUFACTURER**
**Business Name:**
**License Number:**
**Address:**
**DISTRIBUTOR / TESTED FOR**
**Business Name:** R&R CBD

**License Number:**
**Address:**
**SAMPLE DETAIL**
**Batch Number:** 3501

**Sample ID:** 230804R033

**Date of Sampling:** 08/04/2023

**Time of Sampling:** 3:59 p.m.

**Sampler Name:**
**Sampler Company:**
**Date Collected:** 08/04/2023

**Date Received:** 08/04/2023

**Batch Size:**
**Sample Size:** 1.0 units

**Unit Mass:** 69 grams per Unit

**Serving Size:** 2.3 grams per Serving


Scan QR code to verify authenticity of results.

**CANNABINOID ANALYSIS - SUMMARY**
**Total THC: 94.806 mg/unit**
**Total CBD: 2770.557 mg/unit**
**Sum of Cannabinoids: 3040.830 mg/unit**
**Total Cannabinoids: 3035.517 mg/unit**

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:

$$\text{Total THC} = \Delta^9\text{-THC} + (\text{THCa} (0.877))$$

$$\text{Total CBD} = \text{CBD} + (\text{CBDa} (0.877))$$

$$\text{Sum of Cannabinoids} = \Delta^9\text{-THC} + \text{THCa} + \text{CBD} + \text{CBDa} + \text{CBG} + \text{CBGa} +$$

$$\text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta^8\text{-THC} + \text{CBL} + \text{CBN}$$

$$\text{Total Cannabinoids} = (\Delta^9\text{-THC} + 0.877 * \text{THCa}) + (\text{CBD} + 0.877 * \text{CBDa}) +$$

$$(\text{CBG} + 0.877 * \text{CBGa}) + (\text{THCV} + 0.877 * \text{THCVa}) + (\text{CBC} + 0.877 * \text{CBCa}) +$$

$$(\text{CBDV} + 0.877 * \text{CBDVa}) + \Delta^8\text{-THC} + \text{CBL} + \text{CBN}$$
**TERPENOID ANALYSIS - SUMMARY**

39 TESTED, TOP 3 HIGHLIGHTED

**Total Terpenoids: 0.012%**

**α-Bisabolol 0.071 mg/g**

**Guaiol 0.037 mg/g**

**β-Caryophyllene 0.012 mg/g**
**SAFETY ANALYSIS - SUMMARY**
**Pesticides: ✔ PASS**
**Mycotoxins: ✔ PASS**
**Residual Solvents: ✔ PASS**
**Heavy Metals: ✔ PASS**
**Microbiology (PCR): ✔ PASS**
**Microbiology (Plating): ✔ PASS**

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

**Sample Certification:** 6 CCR 1010-21 Colorado Wholesale Food, Industrial Hemp, and Shellfish Regulations; where applicable

**Decision Rule:** Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

**References:** limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT), too numerous to count >250 cfu/plate (TNTC), colony-forming unit (cfu)



Approved by: Josh Wurzer  
Job Title: Chief Compliance Officer  
Date: 08/09/2023



## Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

**Method:** QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

### TOTAL THC: 94.806 mg/unit

Total THC ( $\Delta^9$ -THC+0.877\*THCa)

### TOTAL CBD: 2770.557 mg/unit

Total CBD (CBD+0.877\*CBDA)

### TOTAL CANNABINOIDS: 3035.517 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) +  $\Delta^8$ -THC + CBL + CBN

### TOTAL CBG: 36.570 mg/unit

Total CBG (CBG+0.877\*CBGa)

### TOTAL THCV: ND

Total THCV (THCV+0.877\*THCVa)

### TOTAL CBC: 86.733 mg/unit

Total CBC (CBC+0.877\*CBCa)

### TOTAL CBDV: 21.321 mg/unit

Total CBDV (CBDV+0.877\*CBDVa)

## CANNABINOID TEST RESULTS - 08/07/2023

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±1.4779	39.623	3.9623
$\Delta^9$ -THC	0.002 / 0.014	±0.0754	1.374	0.1374
CBC	0.003 / 0.010	±0.0398	1.235	0.1235
CBDA	0.001 / 0.026	±0.0172	0.604	0.0604
CBG	0.002 / 0.006	±0.0257	0.530	0.0530
CBDV	0.002 / 0.012	±0.0126	0.309	0.0309
CBN	0.001 / 0.007	±0.0087	0.303	0.0303
CBL	0.003 / 0.010	±0.0025	0.067	0.0067
CBCa	0.001 / 0.015	±0.0010	0.025	0.0025
$\Delta^8$ -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002 / 0.012	N/A	ND	ND
THCVa	0.002 / 0.019	N/A	ND	ND
CBDVa	0.001 / 0.018	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
Total THC		±0.0754	1.374	0.1374
<b>SUM OF CANNABINOIDS</b>			<b>44.070 mg/g</b>	<b>4.407%</b>

## Unit Mass: 69 grams per Unit / Serving Size: 2.3 grams per Serving

$\Delta^9$ -THC per Unit	94.806 mg/unit
$\Delta^9$ -THC per Serving	3.160 mg/serving
Total THC per Unit	94.806 mg/unit
Total THC per Serving	3.160 mg/serving
CBD per Unit	2733.987 mg/unit
CBD per Serving	91.133 mg/serving
Total CBD per Unit	2770.557 mg/unit
Total CBD per Serving	92.352 mg/serving
Sum of Cannabinoids per Unit	3040.830 mg/unit
Sum of Cannabinoids per Serving	101.361 mg/serving
Total Cannabinoids per Unit	3035.517 mg/unit
Total Cannabinoids per Serving	101.184 mg/serving



## Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

**Method:** QSP 1192 - Analysis of Terpenoids by GC-FID

### 1 **α-Bisabolol**

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.

### 2 **Guaiol**

A sesquiterpene alcohol with a fragrance that can be described as floral, piney, herbal and woody. Found in guaiacum, cypress pine, ginseng, melaleuca, goatweed, incense grass...etc.

### 3 **β-Caryophyllene**

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB<sub>2</sub> receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

## TERPENOID TEST RESULTS - 08/06/2023

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
α-Bisabolol	0.008 / 0.026	±0.0029	0.071	0.0071
Guaiol	0.009 / 0.030	±0.0014	0.037	0.0037
β-Caryophyllene	0.004 / 0.012	±0.0003	0.012	0.0012
α-Pinene	0.005 / 0.017	N/A	ND	ND
Camphene	0.005 / 0.015	N/A	ND	ND
Sabinene	0.004 / 0.014	N/A	ND	ND
β-Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
α-Phellandrene	0.006 / 0.020	N/A	ND	ND
Δ <sup>3</sup> -Carene	0.005 / 0.018	N/A	ND	ND
α-Terpinene	0.005 / 0.017	N/A	ND	ND
p-Cymene	0.005 / 0.016	N/A	ND	ND
Limonene	0.005 / 0.016	N/A	ND	ND
Eucalyptol	0.006 / 0.018	N/A	ND	ND
β-Ocimene	0.006 / 0.020	N/A	ND	ND
γ-Terpinene	0.006 / 0.018	N/A	ND	ND
Sabinene Hydrate	0.006 / 0.022	N/A	ND	ND
Fenchone	0.009 / 0.028	N/A	ND	ND
Terpinolene	0.008 / 0.026	N/A	ND	ND
Linalool	0.009 / 0.032	N/A	ND	ND
Fenchol	0.010 / 0.034	N/A	ND	ND
Isopulegol	0.005 / 0.016	N/A	ND	ND
Camphor	0.006 / 0.019	N/A	ND	ND
Isoborneol	0.004 / 0.012	N/A	ND	ND
Borneol	0.005 / 0.016	N/A	ND	ND
Menthhol	0.008 / 0.025	N/A	ND	ND
Terpineol	0.009 / 0.031	N/A	ND	ND
Nerol	0.003 / 0.011	N/A	ND	ND
Citronellol	0.003 / 0.010	N/A	ND	ND
Pulegone	0.003 / 0.011	N/A	ND	ND
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
α-Cedrene	0.005 / 0.016	N/A	ND	ND
trans-β-Farnesene	0.008 / 0.025	N/A	ND	ND
α-Humulene	0.009 / 0.029	N/A	ND	ND
Valencene	0.009 / 0.030	N/A	ND	ND
Nerolidol	0.006 / 0.019	N/A	ND	ND
Caryophyllene Oxide	0.010 / 0.033	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
<b>TOTAL TERPENOIDS</b>			<b>0.120 mg/g</b>	<b>0.012%</b>



## Pesticide Analysis

PESTICIDE TEST RESULTS - 08/07/2023 ✔ PASS

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

\*GC-MS utilized where indicated.

**Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Abamectin	0.032 / 0.097	0.25	N/A	ND	PASS
Acephate	0.006 / 0.018	0.05	N/A	ND	PASS
Acequinocyl	0.009 / 0.027	≥ LOQ	N/A	ND	PASS
Acetamiprid	0.016 / 0.049	0.05	N/A	ND	PASS
Aldicarb	0.030 / 0.090	0.5	N/A	ND	PASS
Allethrin	0.030 / 0.092	0.1	N/A	ND	PASS
Atrazine	0.006 / 0.019	≥ LOQ	N/A	ND	PASS
Azadirachtin	0.082 / 0.248	0.5	N/A	ND	PASS
Azoxystrobin	0.003 / 0.009	0.01	N/A	ND	PASS
Benzovindiflupyr	0.003 / 0.009	0.01	N/A	ND	PASS
Bifenazate	0.003 / 0.009	0.01	N/A	ND	PASS
Bifenthrin	0.021 / 0.064	≥ LOQ	N/A	ND	PASS
Boscalid	0.003 / 0.009	0.01	N/A	ND	PASS
Buprofezin	0.006 / 0.019	≥ LOQ	N/A	ND	PASS
Carbaryl	0.007 / 0.020	0.025	N/A	ND	PASS
Carbofuran	0.003 / 0.008	0.01	N/A	ND	PASS
Chlorantraniliprole	0.006 / 0.018	≥ LOQ	N/A	ND	PASS
Chlorfenapyr*	0.005 / 0.015	1.5	N/A	ND	PASS
Chlorpyrifos	0.013 / 0.039	0.5	N/A	ND	PASS
Clofentezine	0.003 / 0.009	0.01	N/A	ND	PASS
Clothianidin	0.008 / 0.025	0.025	N/A	ND	PASS
Coumaphos	0.003 / 0.010	0.01	N/A	ND	PASS
Cyantraniliprole	0.003 / 0.010	0.01	N/A	ND	PASS
Cyfluthrin	0.052 / 0.159	≥ LOQ	N/A	ND	PASS
Cypermethrin	0.051 / 0.153	≥ LOQ	N/A	ND	PASS
Cyprodinil	0.003 / 0.008	0.01	N/A	ND	PASS
Daminozide	0.026 / 0.077	≥ LOQ	N/A	ND	PASS
Deltamethrin	0.059 / 0.180	≥ LOQ	N/A	ND	PASS
Diazinon	0.006 / 0.017	≥ LOQ	N/A	ND	PASS
Dichlorvos (DDVP)	0.012 / 0.038	0.05	N/A	ND	PASS
Dimethoate	0.003 / 0.009	0.01	N/A	ND	PASS
Dimethomorph	0.016 / 0.050	≥ LOQ	N/A	ND	PASS
Dinotefuran	0.010 / 0.030	0.05	N/A	ND	PASS
Diuron	0.013 / 0.040	≥ LOQ	N/A	ND	PASS
Dodemorph	0.012 / 0.035	≥ LOQ	N/A	ND	PASS
Endosulfan sulfate	0.016 / 0.048	2.5	N/A	ND	PASS
Endosulfan-α*	0.004 / 0.014	2.5	N/A	ND	PASS
Endosulfan-β*	0.006 / 0.019	2.5	N/A	ND	PASS
Ethoprophos	0.003 / 0.009	0.01	N/A	ND	PASS
Etofenprox	0.014 / 0.042	≥ LOQ	N/A	ND	PASS
Etoxazole	0.007 / 0.020	≥ LOQ	N/A	ND	PASS

Continued on next page



**Pesticide Analysis** *Continued*

PESTICIDE TEST RESULTS - 08/07/2023 *continued* ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Etridiazole*	0.002 / 0.005	0.15	N/A	ND	PASS
Fenhexamid	0.003 / 0.008	≥ LOQ	N/A	ND	PASS
Fenoxycarb	0.003 / 0.010	0.01	N/A	ND	PASS
Fenpyroximate	0.007 / 0.020	≥ LOQ	N/A	ND	PASS
Fensulfothion	0.003 / 0.010	0.01	N/A	ND	PASS
Fenthion	0.003 / 0.010	0.01	N/A	ND	PASS
Fenvalerate	0.033 / 0.099	≥ LOQ	N/A	ND	PASS
Fipronil	0.003 / 0.010	0.01	N/A	ND	PASS
Flonicamid	0.007 / 0.022	0.025	N/A	ND	PASS
Fludioxonil	0.003 / 0.010	0.01	N/A	ND	PASS
Fluopyram	0.003 / 0.009	0.01	N/A	ND	PASS
Hexythiazox	0.003 / 0.010	≥ LOQ	N/A	ND	PASS
Imazalil	0.003 / 0.009	0.01	N/A	ND	PASS
Imidacloprid	0.003 / 0.010	0.01	N/A	ND	PASS
Iprodione	0.077 / 0.233	0.5	N/A	<LOQ	PASS
Kinoprene	0.077 / 0.233	1.25	N/A	ND	PASS
Kresoxim-methyl	0.006 / 0.019	0.15	N/A	ND	PASS
λ-Cyhalothrin	0.068 / 0.206	≥ LOQ	N/A	ND	PASS
Malathion	0.003 / 0.009	0.01	N/A	ND	PASS
Metalaxyl	0.003 / 0.010	0.01	N/A	ND	PASS
Methiocarb	0.003 / 0.008	0.01	N/A	ND	PASS
Methomyl	0.008 / 0.025	0.025	N/A	ND	PASS
Methoprene	0.172 / 0.521	≥ LOQ	N/A	ND	PASS
Mevinphos	0.008 / 0.024	0.025	N/A	ND	PASS
MGK-264	0.015 / 0.047	≥ LOQ	N/A	ND	PASS
Myclobutanil	0.003 / 0.009	0.01	N/A	ND	PASS
Naled	0.021 / 0.064	≥ LOQ	N/A	ND	PASS
Novaluron	0.002 / 0.005	0.025	N/A	ND	PASS
Oxamyl	0.017 / 0.051	1.5	N/A	ND	PASS
Paclobutrazol	0.003 / 0.010	0.01	N/A	ND	PASS
Parathion-methyl	0.016 / 0.050	≥ LOQ	N/A	ND	PASS
Pentachloronitrobenzene*	0.004 / 0.012	≥ LOQ	N/A	ND	PASS
Permethrin	0.056 / 0.168	≥ LOQ	N/A	ND	PASS
Phenothrin	0.016 / 0.047	≥ LOQ	N/A	ND	PASS
Phosmet	0.007 / 0.020	≥ LOQ	N/A	ND	PASS
Piperonyl Butoxide	0.010 / 0.029	1.25	N/A	ND	PASS
Pirimicarb	0.003 / 0.009	0.01	N/A	ND	PASS
Prallethrin	0.015 / 0.046	≥ LOQ	N/A	ND	PASS
Propiconazole	0.027 / 0.080	≥ LOQ	N/A	ND	PASS
Propoxur	0.003 / 0.008	0.01	N/A	ND	PASS
Pyraclostrobin	0.003 / 0.010	0.01	N/A	ND	PASS

Continued on next page





### Pesticide Analysis *Continued*

PESTICIDE TEST RESULTS - 08/07/2023 *continued* ✔ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Pyrethrins	0.016 / 0.049	≥ LOQ	N/A	ND	PASS
Pyridaben	0.005 / 0.017	0.02	N/A	ND	PASS
Pyriproxyfen	0.003 / 0.009	≥ LOQ	N/A	ND	PASS
Resmethrin	0.013 / 0.039	0.05	N/A	ND	PASS
Spinetoram	0.003 / 0.010	0.01	N/A	ND	PASS
Spinosad	0.003 / 0.010	0.01	N/A	ND	PASS
Spirodiclofen	0.031 / 0.093	≥ LOQ	N/A	ND	PASS
Spiromesifen	0.016 / 0.050	≥ LOQ	N/A	ND	PASS
Spirotetramat	0.003 / 0.010	0.01	N/A	ND	PASS
Spiroxamine	0.020 / 0.062	≥ LOQ	N/A	ND	PASS
Tebuconazole	0.003 / 0.010	0.01	N/A	ND	PASS
Tebufozide	0.003 / 0.008	0.01	N/A	ND	PASS
Teflubenzuron	0.007 / 0.022	0.025	N/A	ND	PASS
Tetrachlorvinphos	0.003 / 0.008	0.01	N/A	ND	PASS
Tetramethrin	0.021 / 0.063	≥ LOQ	N/A	ND	PASS
Thiabendazole	0.006 / 0.020	≥ LOQ	N/A	ND	PASS
Thiacloprid	0.003 / 0.009	0.01	N/A	ND	PASS
Thiamethoxam	0.003 / 0.010	0.01	N/A	ND	PASS
Thiophanate-methyl	0.013 / 0.040	≥ LOQ	N/A	ND	PASS
Trifloxystrobin	0.003 / 0.009	0.01	N/A	ND	PASS



### Mycotoxin Analysis

MYCOTOXIN TEST RESULTS - 08/07/2023 ✔ PASS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	1.6 / 5.0	5	N/A	ND	PASS
Aflatoxin B2	1.4 / 4.1		N/A	ND	
Aflatoxin G1	1.6 / 4.9		N/A	ND	
Aflatoxin G2	1.6 / 5.0		N/A	ND	
Total Aflatoxin		20		ND	PASS
Ochratoxin A	1.6 / 5.0	5	N/A	ND	PASS

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

**Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS



## Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

**Method:** QSP 1204 - Analysis of Residual Solvents by GC-MS

**Total Butanes** = n-Butane + 2-Methylpropane (Isobutane)  
**Total Heptanes** = 2,2-Dimethylpentane (Neoheptane) + 2,3-Dimethylpentane + 2,4-Dimethylpentane + 3,3-Dimethylpentane + 2,2,3-Trimethylbutane (Triptane) + 2-Methylhexane (Isoheptane) + 3-Methylhexane + 3-Ethylpentane + n-Heptane  
**Total Xylenes** = 1,2-Dimethylbenzene (o-Xylene) + 1,3-Dimethylbenzene (m-Xylene) / 1,4-Dimethylbenzene (p-Xylene)

## RESIDUAL SOLVENTS TEST RESULTS - 08/07/2023

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Propane	0.234 / 0.781	1000	N/A	ND	PASS
2-Methylpropane (Isobutane)	0.052 / 0.173		N/A	ND	
n-Butane	0.019 / 0.063		N/A	ND	
<b>Total Butanes</b>		1000		ND	PASS
n-Pentane	0.310 / 1.033	1000	N/A	ND	PASS
n-Hexane	0.110 / 0.366	60	N/A	ND	PASS
2,2-Dimethylpentane (Neoheptane)	0.493 / 1.642		N/A	ND	
2,3-Dimethylpentane	1.009 / 3.365		N/A	ND	
2,4-Dimethylpentane	0.737 / 2.458		N/A	ND	
3,3-Dimethylpentane	0.198 / 0.660		N/A	ND	
2,2,3-Trimethylbutane (Triptane)	0.521 / 1.738		N/A	ND	
2-Methylhexane (Isoheptane)	0.610 / 2.034		N/A	ND	
3-Methylhexane	0.235 / 0.785		N/A	ND	
3-Ethylpentane	0.304 / 1.012		N/A	ND	
n-Heptane	13.12 / 43.72		N/A	ND	
<b>Total Heptanes</b>		1000		ND	PASS
Benzene	0.089 / 0.295	2	N/A	ND	PASS
Toluene	0.115 / 0.382	180	N/A	ND	PASS
1,3-Dimethylbenzene / 1,4-Dimethylbenzene	0.451 / 1.502		N/A	ND	
1,2-Dimethylbenzene (o-Xylene)	0.387 / 1.289		N/A	ND	
<b>Total Xylenes</b>		430		ND	PASS
Methanol	53.92 / 163.4	600	N/A	ND	PASS
Ethanol	8.984 / 27.23	1000	±0.462	29.64	PASS
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	1000	N/A	ND	PASS
Acetone	10.59 / 32.08	1000	N/A	ND	PASS
Ethyl Acetate	1.123 / 3.745	1000	N/A	ND	PASS

## Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

**Method:** QSP 1160 - Analysis of Heavy Metals by ICP-MS

## HEAVY METALS TEST RESULTS - 08/06/2023

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Arsenic	0.02 / 0.1	1.5	N/A	ND	PASS
Cadmium	0.02 / 0.05	0.5	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	ND	PASS
Mercury	0.002 / 0.01	1.5	N/A	ND	PASS



## Microbiology Analysis



### PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

**Method:** QSP 1221 - Analysis of Microbiological Contaminants

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbiological contaminants.

**Method:** QSP 6794 - Plating with 3M™ Petrifilm™

### MICROBIOLOGY TEST RESULTS (PCR) - 08/08/2023 ✔ PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Not Detected in 25g	ND	PASS
<i>Salmonella</i> spp.	Not Detected in 25g	ND	PASS

### MICROBIOLOGY TEST RESULTS (PLATING) - 08/08/2023 ✔ PASS

COMPOUND	ACTION LIMIT (cfu/g)	RESULT (cfu/g)	RESULT
Total Aerobic Bacteria	10000	ND	PASS
Total Yeast and Mold	1000	ND	PASS
Coliforms	100	ND	PASS

### NOTES

CoA Amended Update: Unit Mass

**SAMPLE NAME: R&R Full Spectrum 5000mg CBD Cream**

Infused, Hemp

**CULTIVATOR / MANUFACTURER**
**Business Name:**
**License Number:**
**Address:**
**DISTRIBUTOR / TESTED FOR**
**Business Name:** R&R CBD

**License Number:**
**Address:**

**SAMPLE DETAIL**
**Batch Number:** 3900

**Sample ID:** 230720R049

**Date Collected:** 07/20/2023

**Date Received:** 07/20/2023

**Batch Size:**
**Sample Size:** 1.0 units

**Unit Mass:** 70 grams per Unit

**Serving Size:** 2.32 grams per Serving


Scan QR code to verify authenticity of results.

**CANNABINOID ANALYSIS - SUMMARY**
**Total THC:** 197.260 mg/unit

**Total CBD:** 5441.870 mg/unit

**Sum of Cannabinoids:** 6019.720 mg/unit

**Total Cannabinoids:** 6009.220 mg/unit

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:

 Total THC =  $\Delta^9$ -THC + (THCa (0.877))

Total CBD = CBD + (CBDa (0.877))

 Sum of Cannabinoids =  $\Delta^9$ -THC + THCa + CBD + CBDa + CBG + CBGa +

 THCv + THCVa + CBC + CBCa + CBDV + CBDVa +  $\Delta^8$ -THC + CBL + CBN +

 exo-THC +  $\Delta^8$ -THCV +  $\Delta^8$ -iso-THC + 9S-HHC + 9R-HHC +  $\Delta^{10}$ -THC +

 $\Delta^9$ -THC Acetate

 Total Cannabinoids = ( $\Delta^9$ -THC+0.877\*THCa) + (CBD+0.877\*CBDa) +

(CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) +

 (CBDV+0.877\*CBDVa) +  $\Delta^8$ -THC + CBL + CBN + exo-THC +  $\Delta^8$ -THCV +

 $\Delta^8$ -iso-THC + 9S-HHC + 9R-HHC +  $\Delta^{10}$ -THC +  $\Delta^9$ -THC Acetate

**TERPENOID ANALYSIS - SUMMARY**

39 TESTED, TOP 3 HIGHLIGHTED

**Total Terpenoids:** 0.0231%

 **$\alpha$ -Bisabolol** 0.132 mg/g

**Guaiol** 0.069 mg/g

 **$\beta$ -Caryophyllene** 0.030 mg/g

**SAFETY ANALYSIS - SUMMARY**
**Pesticides:** ND

**Mycotoxins:** ND

**Residual Solvents:** ND

**Heavy Metals:** ND

**Microbiology (PCR):** ND

**Microbiology (Plating):** ND

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

**Sample Certification:** California Code of Regulations Title 4 Division 19. Department of Cannabis Control Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

**Decision Rule:** Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

**References:** limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT), too numerous to count >250 cfu/plate (TNTC), colony-forming unit (cfu)



Approved by: Josh Wurzer  
Job Title: Chief Compliance Officer  
Date: 08/01/2023



## Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

†Analytes not part of our ISO/IEC 17025 scope of accreditation.

**Method:** QSP 1157 - Analysis of Cannabinoids by HPLC-DAD or QSP 34181 - Semisynthetic Cannabinoids Analysis by HPLC

### TOTAL THC: 197.260 mg/unit

Total THC ( $\Delta^9$ -THC+0.877\*THCa)

### TOTAL CBD: 5441.870 mg/unit

Total CBD (CBD+0.877\*CBDA)

### TOTAL CANNABINOIDS: 6009.220 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) +  $\Delta^8$ -THC + CBL + CBN + exo-THC +  $\Delta^8$ -THCV +  $\Delta^8$ -iso-THC + 9S-HHC + 9R-HHC +  $\Delta^{10}$ -THC +  $\Delta^9$ -THC Acetate

### TOTAL CBG: 81.130 mg/unit

Total CBG (CBG+0.877\*CBGa)

### TOTAL THCV: ND

Total THCV (THCV+0.877\*THCVa)

### TOTAL CBC: 187.950 mg/unit

Total CBC (CBC+0.877\*CBCa)

### TOTAL CBDV: 48.650 mg/unit

Total CBDV (CBDV+0.877\*CBDVa)

## CANNABINOID TEST RESULTS - 07/24/2023

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBD	0.004 / 0.011	±2.8611	76.704	7.6704
$\Delta^9$ -THC	0.002 / 0.014	±0.1547	2.818	0.2818
CBC	0.003 / 0.010	±0.0853	2.650	0.2650
CBDA	0.001 / 0.026	±0.0336	1.182	0.1182
CBG	0.002 / 0.006	±0.0562	1.159	0.1159
CBDV	0.002 / 0.012	±0.0284	0.695	0.0695
CBN	0.001 / 0.007	±0.0175	0.609	0.0609
CBL	0.003 / 0.010	±0.0051	0.139	0.0139
CBCa	0.001 / 0.015	±0.0015	0.040	0.0040
CBDVa	0.001 / 0.018	N/A	<LOQ	<LOQ
$\Delta^8$ -iso-THC†	0.025 / 0.084	N/A	<LOQ	<LOQ
exo-THC†	0.028 / 0.093	N/A	<LOQ	<LOQ
$\Delta^8$ -THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.005	N/A	ND	ND
THCV	0.002 / 0.012	N/A	ND	ND
THCVa	0.002 / 0.019	N/A	ND	ND
CBGa	0.002 / 0.007	N/A	ND	ND
9R-HHC†	0.027 / 0.089	N/A	ND	ND
9S-HHC†	0.027 / 0.090	N/A	ND	ND
$\Delta^{10}$ -THC†	0.024 / 0.078	N/A	ND	ND
$\Delta^8$ -THCV†	0.012 / 0.039	N/A	ND	ND
$\Delta^9$ -THC Acetate†	0.023 / 0.077	N/A	ND	ND
<b>SUM OF CANNABINOIDS</b>			<b>85.996 mg/g</b>	<b>8.5996%</b>

Unit Mass: 70 grams per Unit / Serving Size: 2.32 grams per Serving

$\Delta^9$ -THC per Unit	197.260 mg/unit
$\Delta^9$ -THC per Serving	6.538 mg/serving
Total THC per Unit	197.260 mg/unit
Total THC per Serving	6.538 mg/serving
CBD per Unit	5369.280 mg/unit
CBD per Serving	177.953 mg/serving
Total CBD per Unit	5441.870 mg/unit
Total CBD per Serving	180.359 mg/serving
Sum of Cannabinoids per Unit	6019.720 mg/unit
Sum of Cannabinoids per Serving	199.511 mg/serving
Total Cannabinoids per Unit	6009.220 mg/unit
Total Cannabinoids per Serving	199.163 mg/serving



## Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID).

Method: QSP 1192 - Analysis of Terpenoids by GC-FID

### 1 $\alpha$ -Bisabolol

A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.

### 2 Guaiol

A sesquiterpene alcohol with a fragrance that can be described as floral, piney, herbal and woody. Found in guaiacum, cypress pine, ginseng, melaleuca, goatweed, incense grass...etc.

### 3 $\beta$ -Caryophyllene

A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB<sub>2</sub> receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

## TERPENOID TEST RESULTS - 07/24/2023

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
$\alpha$ -Bisabolol	0.008 / 0.026	±0.0055	0.132	0.0132
Guaiol	0.009 / 0.030	±0.0025	0.069	0.0069
$\beta$ -Caryophyllene	0.004 / 0.012	±0.0008	0.030	0.0030
$\alpha$ -Humulene	0.009 / 0.029	N/A	<LOQ	<LOQ
Nerolidol	0.006 / 0.019	N/A	<LOQ	<LOQ
$\alpha$ -Pinene	0.005 / 0.017	N/A	ND	ND
Camphene	0.005 / 0.015	N/A	ND	ND
Sabinene	0.004 / 0.014	N/A	ND	ND
$\beta$ -Pinene	0.004 / 0.014	N/A	ND	ND
Myrcene	0.008 / 0.025	N/A	ND	ND
$\alpha$ -Phellandrene	0.006 / 0.020	N/A	ND	ND
$\Delta^3$ -Carene	0.005 / 0.018	N/A	ND	ND
$\alpha$ -Terpinene	0.005 / 0.017	N/A	ND	ND
p-Cymene	0.005 / 0.016	N/A	ND	ND
Limonene	0.005 / 0.016	N/A	ND	ND
Eucalyptol	0.006 / 0.018	N/A	ND	ND
$\beta$ -Ocimene	0.006 / 0.020	N/A	ND	ND
$\gamma$ -Terpinene	0.006 / 0.018	N/A	ND	ND
Sabinene Hydrate	0.006 / 0.022	N/A	ND	ND
Fenchone	0.009 / 0.028	N/A	ND	ND
Terpinolene	0.008 / 0.026	N/A	ND	ND
Linalool	0.009 / 0.032	N/A	ND	ND
Fenchol	0.010 / 0.034	N/A	ND	ND
Isopulegol	0.005 / 0.016	N/A	ND	ND
Camphor	0.006 / 0.019	N/A	ND	ND
Isoborneol	0.004 / 0.012	N/A	ND	ND
Borneol	0.005 / 0.016	N/A	ND	ND
Menthol	0.008 / 0.025	N/A	ND	ND
Terpineol	0.009 / 0.031	N/A	ND	ND
Nerol	0.003 / 0.011	N/A	ND	ND
Citronellol	0.003 / 0.010	N/A	ND	ND
Pulegone	0.003 / 0.011	N/A	ND	ND
Geraniol	0.002 / 0.007	N/A	ND	ND
Geranyl Acetate	0.004 / 0.014	N/A	ND	ND
$\alpha$ -Cedrene	0.005 / 0.016	N/A	ND	ND
trans- $\beta$ -Farnesene	0.008 / 0.025	N/A	ND	ND
Valencene	0.009 / 0.030	N/A	ND	ND
Caryophyllene Oxide	0.010 / 0.033	N/A	ND	ND
Cedrol	0.008 / 0.027	N/A	ND	ND
<b>TOTAL TERPENOIDS</b>			<b>0.231 mg/g</b>	<b>0.0231%</b>



## Pesticide Analysis

### PESTICIDE TEST RESULTS - 07/25/2023 ND

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

\*GC-MS utilized where indicated.

**Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Abamectin	0.032 / 0.097	N/A	ND
Acephate	0.006 / 0.018	N/A	ND
Acequinocyl	0.009 / 0.027	N/A	ND
Acetamiprid	0.016 / 0.049	N/A	ND
Aldicarb	0.030 / 0.090	N/A	ND
Allethrin	0.030 / 0.092	N/A	ND
Atrazine	0.006 / 0.019	N/A	ND
Azadirachtin	0.082 / 0.248	N/A	ND
Azoxystrobin	0.003 / 0.009	N/A	ND
Benzovindiflupyr	0.003 / 0.009	N/A	ND
Bifenazate	0.003 / 0.009	N/A	ND
Bifenthrin	0.021 / 0.064	N/A	ND
Boscalid	0.003 / 0.009	N/A	ND
Buprofezin	0.006 / 0.019	N/A	ND
Carbaryl	0.007 / 0.020	N/A	ND
Carbofuran	0.003 / 0.008	N/A	ND
Chlorantraniliprole	0.006 / 0.018	N/A	ND
Chlorfenapyr*	0.005 / 0.015	N/A	ND
Chlorpyrifos	0.013 / 0.039	N/A	ND
Clofentezine	0.003 / 0.009	N/A	ND
Clothianidin	0.008 / 0.025	N/A	ND
Coumaphos	0.003 / 0.010	N/A	ND
Cyantraniliprole	0.003 / 0.010	N/A	ND
Cyfluthrin	0.052 / 0.159	N/A	ND
Cypermethrin	0.051 / 0.153	N/A	ND
Cyprodinil	0.003 / 0.008	N/A	ND
Daminozide	0.026 / 0.077	N/A	ND
Deltamethrin	0.059 / 0.180	N/A	ND
Diazinon	0.006 / 0.017	N/A	ND
Dichlorvos (DDVP)	0.012 / 0.038	N/A	ND
Dimethoate	0.003 / 0.009	N/A	ND
Dimethomorph	0.016 / 0.050	N/A	ND
Dinotefuran	0.010 / 0.030	N/A	ND
Diuron	0.013 / 0.040	N/A	ND
Dodemorph	0.012 / 0.035	N/A	ND
Endosulfan sulfate	0.016 / 0.048	N/A	ND
Endosulfan-α*	0.004 / 0.014	N/A	ND
Endosulfan-β*	0.006 / 0.019	N/A	ND
Ethoprophos	0.003 / 0.009	N/A	ND
Etofenprox	0.014 / 0.042	N/A	ND
Etoxazole	0.007 / 0.020	N/A	ND

Continued on next page



**Pesticide Analysis** *Continued*

**PESTICIDE TEST RESULTS - 07/25/2023** *continued ND*

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Etridiazole*	0.002 / 0.005	N/A	ND
Fenhexamid	0.003 / 0.008	N/A	ND
Fenoxycarb	0.003 / 0.010	N/A	ND
Fenpyroximate	0.007 / 0.020	N/A	ND
Fensulfothion	0.003 / 0.010	N/A	ND
Fenthion	0.003 / 0.010	N/A	ND
Fenvalerate	0.033 / 0.099	N/A	ND
Fipronil	0.003 / 0.010	N/A	ND
Flonicamid	0.007 / 0.022	N/A	ND
Fludioxonil	0.003 / 0.010	N/A	ND
Fluopyram	0.003 / 0.009	N/A	ND
Hexythiazox	0.003 / 0.010	N/A	ND
Imazalil	0.003 / 0.009	N/A	ND
Imidacloprid	0.003 / 0.010	N/A	ND
Iprodione	0.077 / 0.233	N/A	ND
Kinoprene	0.077 / 0.233	N/A	ND
Kresoxim-methyl	0.006 / 0.019	N/A	ND
λ-Cyhalothrin	0.068 / 0.206	N/A	ND
Malathion	0.003 / 0.009	N/A	ND
Metaxyl	0.003 / 0.010	N/A	ND
Methiocarb	0.003 / 0.008	N/A	ND
Methomyl	0.008 / 0.025	N/A	ND
Methoprene	0.172 / 0.521	N/A	ND
Mevinphos	0.008 / 0.024	N/A	ND
MGK-264	0.015 / 0.047	N/A	ND
Myclobutanil	0.003 / 0.009	N/A	ND
Naled	0.021 / 0.064	N/A	ND
Novaluron	0.002 / 0.005	N/A	ND
Oxamyl	0.017 / 0.051	N/A	ND
Paclobutrazol	0.003 / 0.010	N/A	ND
Parathion-methyl	0.016 / 0.050	N/A	ND
Pentachloronitrobenzene*	0.004 / 0.012	N/A	ND
Permethrin	0.056 / 0.168	N/A	ND
Phenothrin	0.016 / 0.047	N/A	ND
Phosmet	0.007 / 0.020	N/A	ND
Piperonyl Butoxide	0.010 / 0.029	N/A	ND
Pirimicarb	0.003 / 0.009	N/A	ND
Prallethrin	0.015 / 0.046	N/A	ND
Propiconazole	0.027 / 0.080	N/A	ND
Propoxur	0.003 / 0.008	N/A	ND
Pyraclostrobin	0.003 / 0.010	N/A	ND

Continued on next page





### Pesticide Analysis *Continued*

#### PESTICIDE TEST RESULTS - 07/25/2023 *continued ND*

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Pyrethrins	0.016 / 0.049	N/A	ND
Pyridaben	0.005 / 0.017	N/A	ND
Pyriproxyfen	0.003 / 0.009	N/A	ND
Resmethrin	0.013 / 0.039	N/A	ND
Spinetoram	0.003 / 0.010	N/A	ND
Spinosad	0.003 / 0.010	N/A	ND
Spirodiclofen	0.031 / 0.093	N/A	ND
Spiromesifen	0.016 / 0.050	N/A	ND
Spirotetramat	0.003 / 0.010	N/A	ND
Spiroxamine	0.020 / 0.062	N/A	ND
Tebuconazole	0.003 / 0.010	N/A	ND
Tebufenozide	0.003 / 0.008	N/A	ND
Teflubenzuron	0.007 / 0.022	N/A	ND
Tetrachlorvinphos	0.003 / 0.008	N/A	ND
Tetramethrin	0.021 / 0.063	N/A	ND
Thiabendazole	0.006 / 0.020	N/A	ND
Thiacloprid	0.003 / 0.009	N/A	ND
Thiamethoxam	0.003 / 0.010	N/A	ND
Thiophanate-methyl	0.013 / 0.040	N/A	ND
Trifloxystrobin	0.003 / 0.009	N/A	ND



### Mycotoxin Analysis

#### MYCOTOXIN TEST RESULTS - 07/25/2023 ND

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

**Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS

COMPOUND	LOD/LOQ (µg/kg)	MEASUREMENT UNCERTAINTY (µg/kg)	RESULT (µg/kg)
Aflatoxin B1	1.6 / 5.0	N/A	ND
Aflatoxin B2	1.4 / 4.1	N/A	ND
Aflatoxin G1	1.6 / 4.9	N/A	ND
Aflatoxin G2	1.6 / 5.0	N/A	ND
Total Aflatoxin			ND
Ochratoxin A	1.6 / 5.0	N/A	ND



## Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

**Method:** QSP 1204 - Analysis of Residual Solvents by GC-MS

**Total Butanes** = n-Butane + 2-Methylpropane (Isobutane)  
**Total Heptanes** = 2,2-Dimethylpentane (Neoheptane) + 2,3-Dimethylpentane + 2,4-Dimethylpentane + 3,3-Dimethylpentane + 2,2,3-Trimethylbutane (Triptane) + 2-Methylhexane (Isoheptane) + 3-Methylhexane + 3-Ethylpentane + n-Heptane  
**Total Xylenes** = 1,2-Dimethylbenzene (o-Xylene) + 1,3-Dimethylbenzene (m-Xylene) / 1,4-Dimethylbenzene (p-Xylene)

## RESIDUAL SOLVENTS TEST RESULTS - 07/25/2023 ND

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Propane	0.234 / 0.781	N/A	ND
2-Methylpropane (Isobutane)	0.052 / 0.173	N/A	ND
n-Butane	0.019 / 0.063	N/A	ND
Total Butanes			ND
n-Pentane	0.310 / 1.033	N/A	ND
n-Hexane	0.110 / 0.366	N/A	ND
2,2-Dimethylpentane (Neoheptane)	0.493 / 1.642	N/A	ND
2,3-Dimethylpentane	1.009 / 3.365	N/A	ND
2,4-Dimethylpentane	0.737 / 2.458	N/A	ND
3,3-Dimethylpentane	0.198 / 0.660	N/A	ND
2,2,3-Trimethylbutane (Triptane)	0.521 / 1.738	N/A	ND
2-Methylhexane (Isoheptane)	0.610 / 2.034	N/A	ND
3-Methylhexane	0.235 / 0.785	N/A	ND
3-Ethylpentane	0.304 / 1.012	N/A	ND
n-Heptane	13.12 / 43.72	N/A	ND
Total Heptanes			ND
Benzene	0.089 / 0.295	N/A	ND
Toluene	0.115 / 0.382	N/A	ND
1,3-Dimethylbenzene / 1,4-Dimethylbenzene	0.451 / 1.502	N/A	ND
1,2-Dimethylbenzene (o-Xylene)	0.387 / 1.289	N/A	ND
Total Xylenes			ND
Methanol	53.92 / 163.4	N/A	ND
Ethanol	8.984 / 27.23	N/A	ND
2-Propanol (Isopropyl Alcohol)	8.421 / 25.52	N/A	ND
Acetone	10.59 / 32.08	N/A	ND
Ethyl Acetate	1.123 / 3.745	N/A	ND

## Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

**Method:** QSP 1160 - Analysis of Heavy Metals by ICP-MS

## HEAVY METALS TEST RESULTS - 07/23/2023 ND

COMPOUND	LOD/LOQ (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)
Arsenic	0.02 / 0.1	N/A	ND
Cadmium	0.02 / 0.05	N/A	ND
Lead	0.04 / 0.1	N/A	ND
Mercury	0.002 / 0.01	N/A	ND



## Microbiology Analysis



### PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

**Method:** QSP 1221 - Analysis of Microbiological Contaminants

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbiological contaminants.

**Method:** QSP 6794 - Plating with 3M™ Petrifilm™

### MICROBIOLOGY TEST RESULTS (PCR) - 07/24/2023 ND

COMPOUND	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	ND
<i>Salmonella</i> spp.	ND

### MICROBIOLOGY TEST RESULTS (PLATING) - 07/24/2023 ND

COMPOUND	RESULT (cfu/g)
Total Aerobic Bacteria	ND
Total Yeast and Mold	ND
Coliforms	ND

### NOTES

CoA Amended Update: Order Details-Unit Mass