

# **Hemp Quality Assurance Testing**

## **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 04/03/2024** 

SAMPLE NAME: Seek: Blackberry white Peach

Infused, Liquid Edible

**CULTIVATOR / MANUFACTURER** 

Business Name: License Number:

Address:

SAMPLE DETAIL

Batch Number: 9

**Sample ID:** 240327N002

**DISTRIBUTOR / TESTED FOR** 

Business Name: Elm Creek Brewing

License Number:

Address:

Date Collected: 03/27/2024 Date Received: 03/27/2024

Batch Size:

Sample Size: 1.0 units

Unit Mass: 473 milliliters per Unit

Serving Size:







Scan QR code to verify authenticity of results.

#### **CANNABINOID ANALYSIS - SUMMARY**

Total THC: 10.1695 mg/unit

Total CBD: Not Detected

Sum of Cannabinoids: 10.1695 mg/unit

Total Cannabinoids: 10.1695 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 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

Density: 0.9984 g/mL

#### **SAFETY ANALYSIS - SUMMARY**

 $\Delta^9$ -THC per Unit:  $\bigcirc$  PASS

Heavy Metals: PASS

Pesticides: PASS

Microbiology (PCR): ND

Residual Solvents: PASS

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)

LQC verified by: Josh Antunovich Job Title: Laboratory Director Date: 04/03/2024 Approved by: Josh Wurzer
Job Title: Chief Compliance Officer
Date: 04/03/2024



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

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

TOTAL THC: 10.1695 mg/unit

Total THC (Δ<sup>9</sup>-THC+0.877\*THCa)

**TOTAL CBD: Not Detected** 

Total CBD (CBD+0.877\*CBDa)

TOTAL CANNABINOIDS: 10.1695 mg/unit

 $\begin{array}{l} Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + \\ (Total \ CBG) + (Total \ THCV) + (Total \ CBC) + \\ (Total \ CBDV) + \Delta^8 - THC + CBL + CBN \end{array}$ 

**TOTAL CBG: ND** 

Total CBG (CBG+0.877\*CBGa)

**TOTAL THCV: ND** 

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: ND

Total CBC (CBC+0.877\*CBCa)

TOTAL CBDV: ND

Total CBDV (CBDV+0.877\*CBDVa)

#### **CANNABINOID TEST RESULTS - 03/28/2024**

COMPOUND	LOD/LOQ (mg/mL)	MEASUREMENT UNCERTAINTY (mg/mL)	RESULT (mg/mL)	RESULT (%)
Δ <sup>9</sup> -THC	0.0001 / 0.0005	±0.00118	0.0215	0.00215
$\Delta^8$ -THC	0.0006 / 0.0015	N/A	ND	ND
THCa	0.0001 / 0.0002	N/A	ND	ND
THCV	0.0002 / 0.0009	N/A	ND	ND
THCVa	0.0001/0.0014	N/A	ND	ND
CBD	0.0003 / 0.0008	N/A	ND	ND
CBDa	0.0001 / 0.0020	N/A	ND	ND
CBDV	0.0002 / 0.0009	N/A	ND	ND
CBDVa	0.0001/0.0014	N/A	ND	ND
CBG	0.0001 / 0.0005	N/A	ND	ND
CBGa	0.0001 / 0.0005	N/A	ND	ND
CBL	0.0002 / 0.0008	N/A	ND	ND
CBN	0.0001 / 0.0005	N/A	ND	ND
СВС	0.0003 / 0.0008	N/A	ND	ND
CBCa	0.0001/0.0011	N/A	ND	ND
SUM OF CANNA	ABINOIDS		0.0215 mg/mL	0.00215%

### Unit Mass: 473 milliliters per Unit

$\Delta^9$ -THC per Unit	110 per-pack <mark>age limit</mark>	10.1695 mg/unit PASS	
Total THC per Unit		10.1695 mg/unit	
CBD per Unit		ND	
Total CBD per Unit		ND	
Sum of Cannabinoids per Unit		10.1695 mg/unit	
Total Cannabinoids per Unit		10.1695 mg/unit	

#### **DENSITY TEST RESULT**

0.9984 g/mL

Tested 03/28/2024

**Method:** QSP 7870 - Sample Preparation



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# **Pesticide Analysis**

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

### PESTICIDE TEST RESULTS - 03/30/2024 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Abamectin	0.03 / 0.10	0.3	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	40	N/A	ND	PASS
Bifenazate	0.01/0.04	5	N/A	ND	PASS
Bifenthrin	0.02 / 0.05	0.5	N/A	ND	PASS
Boscalid	0.03 / 0.09	10	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Cypermethrin	0.11/0.32	1	N/A	ND	PASS
Etoxazole	0.02 / 0.06	1.5	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	2	N/A	ND	PASS
Imidacloprid	0.04 / 0.11	3	N/A	ND	PASS
Malathion	0.03 / 0.09	5	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	9	N/A	ND	PASS
Permethrin	0.04 / 0.12	20	N/A	ND	PASS
Piperonyl Butoxide	0.02 / 0.07	8	N/A	ND	PASS
Propiconazole	0.02 / 0.07	20	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	12	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	2	N/A	ND	PASS
Trifloxystrobin	0.03/0.08	30	N/A	ND	PASS



# **Residual Solvents Analysis**

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

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

### RESIDUAL SOLVENTS TEST RESULTS - 03/30/2024 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
Propane	10/2 <mark>0</mark>	5000	N/A	ND	PASS
n-Butane	10/50	5000	N/A	ND	PASS
n-Pentane	20/50	5000	N/A	ND	PASS
n-Hexane	2/5	290	N/A	ND	PASS
n-Heptane	20/60	5000	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Toluene	7/21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS
Methanol	50/200	3000	N/A	ND	PASS
Ethanol	20/50	5000	N/A	ND	PASS
2-Propanol (Isopropyl Alcohol)	10/40	5000	N/A	ND	PASS
Acetone	20/50	5000	N/A	ND	PASS
Ethyl Ether	20/50	5000	N/A	ND	PASS
Ethylene Oxide	0.3 / 0.8	1	N/A	ND	PASS
Ethyl Acetate	20/60	5000	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Dichloromethane (Methylene Chloride)	0.3/0.9	1	N/A	ND	PASS

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#### RESIDUAL SOLVENTS TEST RESULTS - 03/30/2024 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Trichloroethylene	0.1/0.3	1	N/A	ND	PASS
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Acetonitrile	2/7	410	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 - 03/29/2024 PASS**

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	3	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<sup>™</sup> Petrifilm<sup>™</sup> and plate counts of microbiological contaminants.

**Method:** QSP 6794 - Plating with  $3M^{TM}$  Petrifilm<sup>TM</sup>

### MICROBIOLOGY TEST RESULTS (PCR) - 04/02/2024 ND

	COMPOUND	RESULT (cfu/g)
Ī	Bile-Tolerant Gram-Negative Bacteria	ND

### MICROBIOLOGY TEST RESULTS (PLATING) - 04/02/2024 ND

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