

### **Hemp Quality Assurance Testing**

### **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 12/24/2022** 

SAMPLE NAME: Integrate/d 1500mg

Infused, Hemp

**CULTIVATOR / MANUFACTURER** 

**Business Name:** License Number:

Address:

SAMPLE DETAIL

Batch Number: 1010150067 Sample ID: 221220L074

**DISTRIBUTOR / TESTED FOR** 

Business Name: Acknowledge Farms,

IIC.

License Number:

Address:

Date Collected: 12/20/2022 Date Received: 12/20/2022

Batch Size:

Sample Size: 1.0 units

Unit Mass: 30 milliliters per Unit Serving Size: 1 milliliters per Serving







Scan QR code to verify authenticity of results.

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

Total THC: 50.550 mg/unit

Total CBD: 1516.590 mg/unit

Total Cannabinoids: 1674.390 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 + Sum of Cannabinoids: 1674.570 mg/unit 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) + Δ8-THC + CBL + CBN

Density: 0.9199 g/mL

**TERPENOID ANALYSIS - SUMMARY** 

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 0.2245%

 $\beta$ -Caryophyllene 0.861 mg/g

Myrcene 0.392 mg/g

 $\alpha$ -Bisabolol 0.338 mg/g

**SAFETY ANALYSIS - SUMMARY** 

Microbiology (Plating): ND Microbiology (PCR): 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

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)

Jøb Title: Laboratory Assistant Date: 12/24/2022

Approved by: Josh Wurze Title: Président Date: 12/24/2022









## 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: 50.550 mg/unit

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

TOTAL CBD: 1516.590 mg/unit

Total CBD (CBD+0.877\*CBDa)

TOTAL CANNABINOIDS: 1674.390 mg/unit

$$\label{eq:total_constraint} \begin{split} & Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + (Total \ CBC) + (Total \ CBC) + (Total \ CBDV) + \Delta^8 - THC + CBL + CBN \end{split}$$

TOTAL CBG: 23.850 mg/unit

Total CBG (CBG+0.877\*CBGa)

**TOTAL THCV: ND** 

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: 73.710 mg/unit

Total CBC (CBC+0.877\*CBCa)

TOTAL CBDV: 6.660 mg/unit

Total CBDV (CBDV+0.877\*CBDVa)

#### **CANNABINOID TEST RESULTS - 12/24/2022**

	COMPOUND	LOD/LOQ (mg/mL)	MEASUREMENT UNCERTAINTY (mg/mL)	RESULT (mg/mL)	RESULT (%)
Ī	CBD	0.004 / 0.011	±1.8841	50.512	5.4910
-	CBC	0.003 / 0.010	±0.0791	2.457	0.2671
	∆ <sup>9</sup> -THC	0.002 / 0.014	±0.0925	1.685	0.1832
	CBG	0.002 / 0.006	±0.0386	0.795	0.0864
	CBDV	0.002 / 0.012	±0.0091	0.222	0.0241
	CBN	0.001 / 0.007	±0.0017	0.060	0.0065
t -	CBDa	0.001 / 0.026	±0.0013	0.047	0.0051
	CBL	0.003 / 0.010	±0.0015	0.041	0.0045
	$\Delta^8$ -THC	0.01 / 0.02	N/A	ND	ND
	THCa	0.001 / 0.005	N/A	ND	ND
Ī	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
	CBCa	0.001 / 0.015	N/A	ND	ND
	SUM OF CANNA	BINOIDS		55.819 mg/mL	6.0679%

### Unit Mass: 30 milliliters per Unit / Serving Size: 1 milliliters per Serving

$\Delta^9$ -THC per Unit	50.550 mg/unit
$\Delta^9$ -THC per Serving	1.685 mg/serving
Total THC per Unit	50.550 mg/unit
Total THC per Serving	1.685 mg/serving
CBD per Unit	1515.360 mg/unit
CBD per Serving	50.512 mg/serving
Total CBD per Unit	1516.590 mg/unit
Total CBD per Serving	50.553 mg/serving
Sum of Cannabinoids per Unit	1674.570 mg/unit
Sum of Cannabinoids per Serving	55.819 mg/serving
Total Cannabinoids per Unit	1674.390 mg/unit
Total Cannabinoids per Serving	55.813 mg/serving

#### **DENSITY TEST RESULT**

0.9199 g/mL

Tested 12/24/2022

Method: QSP 7870 - Sample

Preparation



# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS

INTEGRATE/D 1500MG | DATE ISSUED 12/24/2022





### **Terpenoid Analysis**

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

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



### **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.



### Myrcene

A monoterpene with a fragrance that can be described as peppery, spicy, herbal, floral and woody. Although it has a pleasant odor, it is typically used by the perfume industry as precursor for developing other fragrances. Found in hops, houttuynia, bay, thyme, lemon grass, mango, verbena, cardamom, citrus...etc.



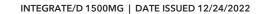
### $\alpha$ -Bisabolol

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.

#### **TERPENOID TEST RESULTS - 12/24/2022**

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β-Caryophyllene	0.004 / 0.012	±0.0238	0.861	0.0861
Myrcene	0.008 / 0.025	±0.0039	0.392	0.0392
α-Bisabolol	0.008 / 0.026	±0.0140	0.338	0.0338
α-Humulene	0.009 / 0.029	±0.0061	0.243	0.0243
Guaiol	0.009 / 0.030	±0.0030	0.082	0.0082
Limonene	0.005 / 0.016	±0.0009	0.078	0.0078
Caryophyllene Oxide	0.010 / 0.033	±0.0027	0.075	0.0075
trans-β-Farnesene	0.008 / 0.025	±0.0015	0.053	0.0053
Fenchol	0.010 / 0.034	±0.0014	0.045	0.0045
Terpineol	0.009 / 0.031	±0.0021	0.043	0.0043
Linalool	0.009/0.032	±0.0010	0.035	0.0035
α-Pinene	0.005 / 0.017	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Borneol	0.005 / 0.016	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Valencene	0.009 / 0.030	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
Nerolidol	0.006 / 0.019	N/A	<loq< td=""><td><loq< td=""></loq<></td></loq<>	<loq< td=""></loq<>
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
α-Phellandrene	0.006 / 0.020	N/A	ND	ND
$\Delta^3$ -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
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	0.00 <mark>6/0.022</mark>	N/A	ND	ND
Fenchone	0.009/0.028	N/A	ND	ND
Terpinolene	0.008 / 0.026	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
Menthol	0.008 / 0.025	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
Cedrol	0.008 / 0.027	N/A	ND	ND
TOTAL TERPENOIDS			2.245 mg/g	0.2245%









### **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  $3M^{\text{TM}}$  Petrifilm and plate counts of microbiological contaminants.

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

### MICROBIOLOGY TEST RESULTS (PCR) - 12/24/2022 ND

COMPOUND	RESULT
Shiga toxin-producing Escherichia coli	ND
Salmonella spp.	ND

### MICROBIOLOGY TEST RESULTS (PLATING) - 12/24/2022 ND

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