

## **Hemp Quality Assurance Testing**

## **CERTIFICATE OF ANALYSIS**

**DATE ISSUED 04/26/2023** 

SAMPLE NAME: A00000186

Infused, Hemp

**CULTIVATOR / MANUFACTURER** 

**Business Name:** License Number:

Address:

SAMPLE DETAIL

**Batch Number:** 

Sample ID: 230422P001

**DISTRIBUTOR / TESTED FOR** 

Business Name: New York Hemp Oil

License Number:

Address:

Date Collected: 04/22/2023 Date Received: 04/22/2023

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: 8.490 mg/unit

Total CBD: 115.470 mg/unit

Total Cannabinoids: 775.830 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: 775.830 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) +  $\Delta$ <sup>8</sup>-THC + CBL + CBN

Density: 0.9477 g/mL

**TERPENOID ANALYSIS - SUMMARY** 

39 TESTED, TOP 3 HIGHLIGHTED

Total Terpenoids: 0.0653%

α-Bisabolol 0.234 mg/g

Guaiol 0.144 mg/g

β-Caryophyllene 0.134 mg/g

**SAFETY ANALYSIS - SUMMARY** 

Pesticides: ND Residual Solvents: DETECTED 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

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)

LOC verified by Rowan Adal of Job Title: Laboratory Analyst I Date: 04/26/2023

Approved by: Josh Wurzer Title: Chief Compliance Officer Date: 04/26/2023

SC Laboratories California LLC. | 100 Pioneer Street, Suite E, Santa Cruz, CA 95060 | (866) 435-0709 | sclabs.com | C8-0000013-LIC | ISO/IES 17025:2017 PJLA Accreditation Number 87168 © 2023 SC Labs all rights reserved. Trademarks referenced are trademarks of either SC Labs or their respective owners. MKT0002 REV9 2/22 CoA ID: 230422P001-001 Summary Page



# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS

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## 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: **8.490 mg/unit** Total THC (Δ<sup>9</sup>-THC+0.877\*THCa)

70101 7170 (2 1170 1077 11700)

TOTAL CBD: 115.470 mg/unit

Total CBD (CBD+0.877\*CBDa)

TOTAL CANNABINOIDS: 775.830 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: 636.960 mg/unit

Total CBG (CBG+0.877\*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: 12.630 mg/unit

Total CBC (CBC+0.877\*CBCa)

**TOTAL CBDV: ND** 

Total CBDV (CBDV+0.877\*CBDVa)

#### **CANNABINOID TEST RESULTS - 04/24/2023**

| COMPOUND            | LOD/LOQ<br>(mg/mL) | MEASUREMENT<br>UNCERTAINTY (mg/mL) | RESULT<br>(mg/mL) | RESULT<br>(%) |
|---------------------|--------------------|------------------------------------|-------------------|---------------|
| CBG                 | 0.002 / 0.006      | ±1.0298                            | 21.232            | 2.2404        |
| CBD                 | 0.004 / 0.011      | ±0.1436                            | 3.849             | 0.4061        |
| СВС                 | 0.003 / 0.010      | ±0.0136                            | 0.421             | 0.0444        |
| Δ <sup>9</sup> -THC | 0.002 / 0.014      | ±0.0155                            | 0.283             | 0.0299        |
| CBL                 | 0.003 / 0.010      | ±0.0020                            | 0.053             | 0.0056        |
| CBN                 | 0.001 / 0.007      | ±0.0007                            | 0.023             | 0.0024        |
| $\Delta^8$ -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            |
| CBDa                | 0.001 / 0.026      | N/A                                | ND                | ND            |
| CBDV                | 0.002 / 0.012      | 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            |                                    | 25.861 mg/mL      | 2.7288%       |

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

| $\Delta^9$ -THC per Unit        | 8.490 mg/unit     |  |
|---------------------------------|-------------------|--|
| $\Delta^9$ -THC per Serving     | 0.283 mg/serving  |  |
| Total THC per Unit              | 8.490 mg/unit     |  |
| Total THC per Serving           | 0.283 mg/serving  |  |
| CBD per Unit                    | 115.470 mg/unit   |  |
| CBD per Serving                 | 3.849 mg/serving  |  |
| Total CBD per Unit              | 115.470 mg/unit   |  |
| Total CBD per Serving           | 3.849 mg/serving  |  |
| Sum of Cannabinoids per Unit    | 775.830 mg/unit   |  |
| Sum of Cannabinoids per Serving | 25.861 mg/serving |  |
| Total Cannabinoids per Unit     | 775.830 mg/unit   |  |
| Total Cannabinoids per Serving  | 25.861 mg/serving |  |

#### **DENSITY TEST RESULT**

0.9477 g/mL

Tested 04/24/2023

**Method:** QSP 7870 - Sample Preparation



# Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS

A00000186 | DATE ISSUED 04/26/2023





## **Terpenoid Analysis**

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

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



#### $\alpha$ -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.



#### 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.



### $\beta$ -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 - 04/24/2023

| COMPOUND            | LOD/LOQ<br>(mg/g) | MEASUREMENT<br>UNCERTAINTY (mg/g) | RESULT<br>(mg/g)                                | RESULT<br>(%)       |
|---------------------|-------------------|-----------------------------------|---|---------------------|
| α-Bisabolol         | 0.008 / 0.026     | ±0.0097                           | 0.234   | 0.0234              |
| Guaiol              | 0.009 / 0.030     | ±0.0053                           | 0.144   | 0.0144              |
| β-Caryophyllene     | 0.004 / 0.012     | ±0.0037                           | 0.134   | 0.0134              |
| Caryophyllene Oxide | 0.010 / 0.033     | ±0.0024                           | 0.067   | 0.0067              |
| α-Humulene          | 0.009/0.029       | ±0.0014                           | 0.055   | 0.0055              |
| Nerolidol           | 0.006/0.019       | ±0.0009                           | 0.019   | 0.0019              |
| trans-β-Farnesene   | 0.008 / 0.025     | N/A                               | <loq< td=""><td><loq< td=""></loq<></td></loq<> | <loq< td=""></loq<> |
| 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                  |
| $\Delta^3$ -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                  |
| 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                  |
| 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                  |
| α-Cedrene           | 0.005 / 0.016     | N/A                               | ND  | ND                  |
| Valencene           | 0.009 / 0.030     | N/A                               | ND  | ND                  |
| Cedrol              | 0.008 / 0.027     | N/A                               | ND  | ND                  |
| TOTAL TERPENOIDS    |                   |                                   | 0.653 mg/g                                      | 0.0653%             |



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A00000186 | DATE ISSUED 04/26/2023





## **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 - 04/24/2023 ND

| COMPOUND           | LOD/LOQ<br>(µg/g) | MEASUREMENT<br>UNCERTAINTY (µg/g) | RESULT<br>(µg/g) |
|--------------------|-------------------|-----------------------------------|------------------|
| Abamectin          | 0.03 / 0.10       | N/A                               | ND               |
| Azoxystrobin       | 0.02 / 0.07       | N/A                               | ND               |
| Bifenazate         | 0.01 / 0.04       | N/A                               | ND               |
| Bifenthrin         | 0.02 / 0.05       | N/A                               | ND               |
| Boscalid           | 0.03 / 0.09       | N/A                               | ND               |
| Chlorpyrifos       | 0.02 / 0.06       | N/A                               | ND               |
| Cypermethrin       | 0.11 / 0.32       | N/A                               | ND               |
| Etoxazole          | 0.02 / 0.06       | N/A                               | ND               |
| Hexythiazox        | 0.02 / 0.07       | N/A                               | ND               |
| Imidacloprid       | 0.04 / 0.11       | N/A                               | ND               |
| Malathion          | 0.03 / 0.09       | N/A                               | ND               |
| Myclobutanil       | 0.03 / 0.09       | N/A                               | ND               |
| Permethrin         | 0.04 / 0.12       | N/A                               | ND               |
| Piperonyl Butoxide | 0.02 / 0.07       | N/A                               | ND               |
| Propiconazole      | 0.02 / 0.07       | N/A                               | ND               |
| Spiromesifen       | 0.02 / 0.05       | N/A                               | ND               |
| Tebuconazole       | 0.02 / 0.07       | N/A                               | ND               |
| Trifloxystrobin    | 0.03 / 0.08       | 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

### RESIDUAL SOLVENTS TEST RESULTS - 04/24/2023 DETECTED

| COMPOUND                                | LOD/LOQ<br>(µg/g) | MEASUREMENT<br>UNCERTAINTY (µg/g) | RESULT<br>(µg/g)    |
|---|-------------------|-----------------------------------|---------------------|
| Propane                                 | 10/20             | N/A                               | ND                  |
| n-Butane                                | 10/50             | N/A                               | ND                  |
| n-Pentane                               | 20/50             | N/A                               | ND                  |
| n-Hexane                                | 2/5               | N/A                               | ND                  |
| n-Heptane                               | 20/60             | N/A                               | ND                  |
| Benzene                                 | 0.03 / 0.09       | N/A                               | ND                  |
| Toluene                                 | 7/21              | N/A                               | ND                  |
| Total Xylenes                           | 50 / 160          | N/A                               | ND                  |
| Methanol                                | 50 / 200          | N/A                               | ND                  |
| Ethanol                                 | 20/50             | N/A                               | <loq< th=""></loq<> |
| 2-Propanol<br>(Isopropyl Alcohol)       | 10/40             | N/A                               | ND                  |
| Acetone                                 | 20/50             | N/A                               | ND                  |
| Ethyl Ether                             | 20/50             | N/A                               | ND                  |
| Ethylene Oxide                          | 0.3 / 0.8         | N/A                               | ND                  |
| Ethyl Acetate                           | 20/60             | N/A                               | ND                  |
| Chloroform                              | 0.1 / 0.2         | N/A                               | ND                  |
| Dichloromethane<br>(Methylene Chloride) | 0.3 / 0.9         | N/A                               | ND                  |

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A00000186 | DATE ISSUED 04/26/2023





#### **RESIDUAL SOLVENTS TEST RESULTS - 04/24/2023 continued DETECTED**

| COMPOUND           | LOD/LOQ<br>(µg/g) | MEASUREMENT<br>UNCERTAINTY (μg/g) | RESULT<br>(μg/g) |
|--------------------|-------------------|-----------------------------------|------------------|
| Trichloroethylene  | 0.1 / 0.3         | N/A                               | ND               |
| 1,2-Dichloroethane | 0.05 / 0.1        | N/A                               | ND               |
| Acetonitrile       | 2/7               | 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 - 04/26/2023 ND**

| COMPOUND | LOD/LOQ<br>(µg/g) | MEASUREMENT<br>UNCERTAINTY (µg/g) | RESULT<br>(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

| COMPOUND                               | RESULT<br>(cfu/g) |
|--|-------------------|
| Shiga toxin-producing Escherichia coli | ND                |
| Salmonella spp.                        | ND                |
| Bile-Tolerant Gram-Negative Bacteria   | ND                |
| Staphylococcus aureus                  | ND                |

Analysis conducted by  $3M^{\mathsf{TM}}$  Petrifilm and plate counts of microbiological contaminants.

Method: QSP 6794 - Plating with 3M<sup>™</sup> Petrifilm<sup>™</sup>

### MICROBIOLOGY TEST RESULTS (PLATING) - 04/25/2023 ND

| COMPOUND               | RESULT<br>(cfu/g) |
|------------------------|-------------------|
| Total Aerobic Bacteria | ND                |
| Total Yeast and Mold   | ND                |