

SAMPLE NAME: NYHO-082420-CBN

Infused, Product Inhalable

CULTIVATOR / MANUFACTURER

Business Name:

License Number:

Address:

DISTRIBUTOR

Business Name: New York Hemp Oil

License Number: n/a

Address:

SAMPLE DETAIL

Batch Number:

Sample ID: 200828T009

Date Collected: 08/28/2020

Date Received: 08/28/2020

Batch Size:

Sample Size:

Unit Mass: 20 Grams per Unit

Serving Size:



Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: 0.0 mg/unit

Total CBD: 251.140 mg/unit

Sum of Cannabinoids: 537.400 mg/unit

Total Cannabinoids: 528.900 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 = $\Delta 9\text{THC} + (\text{THCa} \cdot 0.877)$

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

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

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

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

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

$(\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

Moisture: NT

Density: NT

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

$\Delta 9\text{THC}$ per Unit: ✔ PASS

Foreign Material: NT

Water Activity: NT

Vitamin E Acetate: NT

Pesticides: ✔ PASS

Mycotoxins: NT

Residual Solvents: ✔ PASS

Heavy Metals: ✔ PASS

Microbial Impurities (PCR): ✔ PASS

Microbial Impurities (Plating): NT

TERPENOID ANALYSIS - SUMMARY

35 TESTED, TOP 3 HIGHLIGHTED

● **β Caryophyllene** 0.14 mg/g

● **Geraniol** 0.09 mg/g

● **α Bisabolol** 0.08 mg/g

For quality assurance purposes. Not a Pre-Harvest 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 16 Effect Date January 16, 2019. Authority: Section 26013, 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)

Reza Naemeh
LQC verified by: Reza Naemeh
Date: 08/30/2020

Josh Wurzer
Approved by: Josh Wurzer, President
Date: 08/30/2020



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: 0.0 mg/unit

Total THC (Δ^9 THC+0.877*THCa)

TOTAL CBD: 251.140 mg/unit

Total CBD (CBD+0.877*CBDA)

TOTAL CANNABINOIDS: 528.900 mg/unit

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ^8 THC + CBL + CBN

TOTAL CBG: 4.460 mg/unit

Total CBG (CBG+0.877*CBGa)

TOTAL THCV: ND

Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 8.620 mg/unit

Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: 1.280 mg/unit

Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 08/30/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBN	0.001 / 0.004	±0.4856	13.160	1.3160
CBD	0.004 / 0.011	±0.5989	12.504	1.2504
CBC	0.003 / 0.010	±0.0178	0.431	0.0431
Δ^9 THC	0.002 / 0.005	±0.0294	0.417	0.0417
CBG	0.002 / 0.005	±0.0139	0.223	0.0223
CBDV	0.002 / 0.007	±0.0034	0.064	0.0064
CBDA	0.001 / 0.003	±0.0022	0.061	0.0061
CBL	0.003 / 0.008	±0.0005	0.010	0.0010
Δ^8 THC	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.002	N/A	ND	ND
THCV	0.002 / 0.008	N/A	ND	ND
THCVa	0.002 / 0.005	N/A	ND	ND
CBDVa	0.001 / 0.003	N/A	ND	ND
CBGa	0.002 / 0.006	N/A	ND	ND
CBCa	0.001 / 0.004	N/A	ND	ND
SUM OF CANNABINOIDS			26.870 mg/g	2.687%

Unit Mass: 20 Grams per Unit

Δ^9 THC per Unit	1100.0 per-package limit	8.340 mg/unit	PASS
Total THC per Unit		0.0 mg/unit	
CBD per Unit		250.080 mg/unit	
Total CBD per Unit		251.140 mg/unit	
Sum of Cannabinoids per Unit		537.400 mg/unit	
Total Cannabinoids per Unit		528.900 mg/unit	

MOISTURE TEST RESULT

Not Tested

DENSITY TEST RESULT

Not Tested

VISCOSITY TEST RESULT

Not Tested





Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

Method: OSP - (1192) Analysis of Terpenoids by GC-FID

1 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 CB₂ receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

2 Geraniol

A monoterpenoid alcohol with a fragrance that can be described as floral, sweet, waxy and mildly fruity with a hint of citrus. Honeybees produce and secrete this compound to indicate the location of flowers containing nectar and the entrances to their hives. It is considered a contaminant in wine production. Found in rose, palmarosa, lemongrass, geranium, lemon, catnip tea plant, nutmeg, basil, beebalm, black walnut, bay laurel, wild carrot, cardamom, ginger, incense grass...etc.

3 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.

TERPENOID TEST RESULTS - 08/30/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
β Caryophyllene	0.02 / 0.07	± 0.007	0.14	0.014
Geraniol	0.02 / 0.07	± 0.004	0.09	0.009
α Bisabolol	0.02 / 0.07	± 0.004	0.08	0.008
α Humulene	0.02 / 0.05	N/A	<LOQ	<LOQ
Guaiol	0.03 / 0.09	N/A	<LOQ	<LOQ
α Pinene	0.03 / 0.09	N/A	ND	ND
Camphene	0.04 / 0.11	N/A	ND	ND
Sabinene	0.04 / 0.11	N/A	ND	ND
β Pinene	0.04 / 0.11	N/A	ND	ND
Myrcene	0.04 / 0.11	N/A	ND	ND
α Phellandrene	0.05 / 0.1	N/A	ND	ND
3 Carene	0.04 / 0.1	N/A	ND	ND
α Terpinene	0.04 / 0.1	N/A	ND	ND
Limonene	0.02 / 0.05	N/A	ND	ND
Eucalyptol	0.03 / 0.08	N/A	ND	ND
Ocimene	0.03 / 0.09	N/A	ND	ND
γ Terpinene	0.04 / 0.1	N/A	ND	ND
Sabinene Hydrate	0.02 / 0.07	N/A	ND	ND
Fenchone	0.04 / 0.12	N/A	ND	ND
Terpinolene	0.03 / 0.09	N/A	ND	ND
Linalool	0.03 / 0.08	N/A	ND	ND
Fenchol	0.03 / 0.09	N/A	ND	ND
(-)-Isopulegol	0.02 / 0.05	N/A	ND	ND
Camphor	0.1 / 0.2	N/A	ND	ND
Isoborneol	0.04 / 0.1	N/A	ND	ND
Borneol	0.1 / 0.2	N/A	ND	ND
Menthol	0.03 / 0.09	N/A	ND	ND
Terpineol	0.02 / 0.07	N/A	ND	ND
Nerol	0.03 / 0.09	N/A	ND	ND
R-(+)-Pulegone	0.03 / 0.09	N/A	ND	ND
Geranyl Acetate	0.02 / 0.06	N/A	ND	ND
α Cedrene	0.02 / 0.07	N/A	ND	ND
Valencene	0.01 / 0.03	N/A	ND	ND
Nerolidol	0.3 / 0.8	N/A	ND	ND
Caryophyllene Oxide	0.04 / 0.11	N/A	ND	ND
Cedrol	0.04 / 0.11	N/A	ND	ND
TOTAL TERPENOIDS			0.31 mg/g	0.031%





Pesticide Analysis

CATEGORY 1 PESTICIDE TEST RESULTS - 08/30/2020 ✔ PASS

CATEGORY 1 AND 2 PESTICIDES

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
Aldicarb	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Carbofuran	0.01 / 0.04	≥ LOD	N/A	ND	PASS
Chlordane*	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Chlorfenapyr*	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Coumaphos	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Daminozide	0.03 / 0.10	≥ LOD	N/A	ND	PASS
DDVP (Dichlorvos)	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Dimethoate	0.02 / 0.07	≥ LOD	N/A	ND	PASS
Ethoprop(hos)	0.03 / 0.08	≥ LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Fenoxycarb	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Fipronil	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Imazalil	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Methiocarb	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Methyl parathion	0.03 / 0.10	≥ LOD	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥ LOD	N/A	ND	PASS
Paclobutrazol	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Propoxur	0.02 / 0.06	≥ LOD	N/A	ND	PASS
Spiroxamine	0.02 / 0.05	≥ LOD	N/A	ND	PASS
Thiacloprid	0.03 / 0.07	≥ LOD	N/A	ND	PASS

CATEGORY 2 PESTICIDE TEST RESULTS - 08/30/2020 ✔ PASS

Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Acephate	0.01 / 0.04	0.1	N/A	ND	PASS
Acequinocyl	0.02 / 0.05	0.1	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	0.1	N/A	ND	PASS
Azoxystrobin	0.01 / 0.04	0.1	N/A	ND	PASS
Bifenazate	0.01 / 0.02	0.1	N/A	ND	PASS
Bifenthrin	0.01 / 0.02	3	N/A	ND	PASS
Boscalid	0.02 / 0.06	0.1	N/A	ND	PASS
Captan	0.2 / 0.5	0.7	N/A	ND	PASS
Carbaryl	0.01 / 0.02	0.5	N/A	ND	PASS
Chlorantraniliprole	0.01 / 0.03	10	N/A	ND	PASS

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 **Pesticide Analysis** *Continued*

CATEGORY 2 PESTICIDE TEST RESULTS - 08/30/2020 *continued* ✔ PASS

CATEGORY 1 AND 2 PESTICIDES

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
Clofentezine	0.02 / 0.06	0.1	N/A	ND	PASS
Cyfluthrin	0.1 / 0.4	2	N/A	ND	PASS
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon	0.01 / 0.04	0.1	N/A	ND	PASS
Dimethomorph	0.01 / 0.03	2	N/A	ND	PASS
Etoxazole	0.010 / 0.028	0.1	N/A	ND	PASS
Fenhexamid	0.02 / 0.1	0.1	N/A	ND	PASS
Fenpyroximate	0.03 / 0.08	0.1	N/A	ND	PASS
Flonicamid	0.01 / 0.04	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.08	0.1	N/A	ND	PASS
Hexythiazox	0.01 / 0.04	0.1	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	5	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	0.1	N/A	ND	PASS
Malathion	0.02 / 0.05	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.06	2	N/A	ND	PASS
Methomyl	0.03 / 0.1	1	N/A	ND	PASS
Myclobutanil	0.03 / 0.1	0.1	N/A	ND	PASS
Naled	0.03 / 0.1	0.1	N/A	ND	PASS
Oxamyl	0.02 / 0.06	0.5	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.03 / 0.09	0.5	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonylbutoxide	0.003 / 0.009	3	N/A	ND	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.01 / 0.03	0.1	N/A	ND	PASS
Pyrethrins	0.03 / 0.08	0.5	N/A	ND	PASS
Pyridaben	0.006 / 0.019	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.06	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.01 / 0.02	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiamethoxam	0.03 / 0.08	5	N/A	ND	PASS
Trifloxystrobin	0.01 / 0.03	0.1	N/A	ND	PASS




 **Residual Solvents Analysis**

CATEGORY 1 RESIDUAL SOLVENTS TEST RESULTS - 08/30/2020  **PASS**

CATEGORY 1 AND 2 RESIDUAL SOLVENTS
 Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).


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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Ethylene Oxide	0.1 / 0.4	1	N/A	ND	PASS
Methylene chloride	0.3 / 0.9	1	N/A	ND	PASS
Trichloroethylene	0.1 / 0.3	1	N/A	ND	PASS

CATEGORY 2 RESIDUAL SOLVENTS TEST RESULTS - 08/30/2020  **PASS**

Acetone	20 / 50	5000	N/A	ND	PASS
Acetonitrile	2 / 7	410	N/A	ND	PASS
Butane	10 / 50	5000	N/A	ND	PASS
Ethanol	20 / 50	5000	N/A	ND	PASS
Ethyl acetate	20 / 60	5000	N/A	ND	PASS
Ethyl ether	20 / 50	5000	N/A	ND	PASS
Heptane	20 / 60	5000	N/A	ND	PASS
Hexane	2 / 5	290	N/A	ND	PASS
Isopropyl Alcohol	10 / 40	5000	N/A	ND	PASS
Methanol	50 / 200	3000	N/A	ND	PASS
Pentane	20 / 50	5000	N/A	ND	PASS
Propane	10 / 20	5000	N/A	ND	PASS
Toluene	7 / 21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS

 **Heavy Metals Analysis**

HEAVY METALS TEST RESULTS - 08/29/2020  **PASS**

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

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

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
Lead	0.04 / 0.1	0.5	N/A	<LOQ	PASS
Arsenic	0.02 / 0.1	0.2	N/A	ND	PASS
Mercury	0.002 / 0.01	0.1	N/A	ND	PASS





Microbial Impurities Analysis
 PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbial impurities.

Method: QSP - (1221) Analysis of Microbial Impurities

MICROBIAL IMPURITIES TEST RESULTS (PCR) - 08/30/2020 ✔ PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Detect	ND	PASS
<i>Salmonella</i> spp.	Detect	ND	PASS
<i>Aspergillus fumigatus</i>	Detect	ND	PASS
<i>Aspergillus flavus</i>	Detect	ND	PASS
<i>Aspergillus niger</i>	Detect	ND	PASS
<i>Aspergillus terreus</i>	Detect	ND	PASS

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbial impurities.

Method: QSP - (6794) Plating with 3M™ Petrifilm™

MICROBIAL IMPURITIES TEST RESULTS (PLATING)

COMPOUND	RESULT (cfu/g)
Aerobic Plate Count	NT
Total Yeast and Mold	NT

