

Nanticoke Hemp Inc.

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 pete@nanticokegardens.com
 607-754-5008
 License #: OCM-PROC-24-000002

Certificate of Analysis

Final



Date Released: 8/19/2024 12:12:05PM

Report #: 20870

Pluto Jar

Sample #: 5549, Weight: 45.50g, Unit Count:
 Order #: K240812-0003

Category/Type: Plant, Flower - Cured
 Date Collected: 8/11/2024 9:00:24AM
 Date Received: 8/12/2024 6:04:35AM
 Date Sampled: 8/10/2024 10:15:24AM

Regulator Sample ID: 070204
 Regulator Source Package ID: 070204
 Regulator Batch ID: 070204

Size: 3200Units, Unit Count:



Total Cannabinoids
 27.44 %
 274.4 mg/g



Total THC
 23.45 %
 234.5 mg/g



Total CBD
 0.1147 %
 1.147 mg/g



Total Terpenes
 2.0 %



Moisture
 12.9 %



Heavy Metals
 PASS



Microbials
 PASS



Pesticides
 PASS



Mycotoxins
 PASS



Foreign Matter
 PASS



Water Activity
 PASS

Potency Analysis by HPLC

Total Cannabinoids: **27.44 % - 274.4 mg/g**
 Total THC: **23.45 % - 234.5 mg/g**
 Total CBD: **0.1147 % - 1.147 mg/g**

Date Completed: 08/13/2024 9:19AM

Compound	CAS#	LOQ (%)	%	mg/g	Relative Concentration
THCa	23978-85-0	0.001000	25.84	258.4	<div style="width: 100%; height: 10px; background-color: green;"></div>
d9-THC	1972-08-3	0.001000	0.7932	7.932	<div style="width: 3%; height: 10px; background-color: green;"></div>
CBGa	25555-57-1	0.001000	0.4638	4.638	<div style="width: 1.5%; height: 10px; background-color: green;"></div>
CBG	25654-31-3	0.001000	0.1936	1.936	<div style="width: 0.75%; height: 10px; background-color: green;"></div>
CBDa	1244-58-2	0.001000	0.1308	1.308	<div style="width: 0.52%; height: 10px; background-color: green;"></div>
CBDV	24274-48-4	0.001000	0.02187	0.2187	<div style="width: 0.087%; height: 10px; background-color: green;"></div>

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Kelly Greenland

Dr. Kelly Greenland, Lab Director





Sample #: 5549

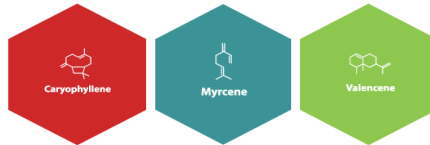
Pluto Jar

Compound	CAS#	LOQ (%)	%	mg/g	Relative Concentration
d8-THC	5957-75-5	0.001000	ND	ND	
d10/R9-THC	95543-62-7	0.001000	ND	ND	
d10/S9-THC	95588-87-7	0.001000	ND	ND	
THCV	31262-37-0	0.001000	ND	ND	
CBD	13956-29-1	0.001000	ND	ND	
CBC	20675-51-8	0.001000	ND	ND	
CBN	521-35-7	0.001000	ND	ND	

Test Comment: Cannabinoids analyzed by HPLC using P-NY100. The reported result is based on a sample weight using moisture content for flower samples unless moisture is listed as zero or ND. Unless otherwise stated all QC passed.

Terpenes by HS-GC-MS

Date Completed: 08/13/2024 2:16PM



Compound	CAS#	LOQ (%)	%	Relative Concentration
Beta-caryophyllene	87-44-5	0.1000	0.7198	
Farnesene	502-61-4	0.1000	0.4084	
Beta-myrcene	123-35-3	0.1000	0.3151	
Valencene	4630-07-3	0.1000	0.2173	
Limonene	5989-27-5	0.1000	0.1916	
Alpha-humulene	6753-98-6	0.1000	0.1603	
Alpha-pinene	80-56-8	0.1000	ND	
Linalool	78-70-6	0.1000	ND	

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Compound	CAS#	LOQ (%)	%	Relative Concentration
Beta-pinene	127-91-3	0.1000	ND	
Terpinolene	586-62-9	0.1000	ND	
Borneol	464-43-7	0.1000	ND	
Ocimene	13877-91-3	0.1000	ND	
Alpha-bisabolol	515-69-5	0.1000	ND	
Caryophyllene-oxide	1139-30-6	0.1000	ND	
Geraniol	106-24-1	0.1000	ND	
Camphene	79-92-5	0.1000	ND	
Guaiol	489-86-1	0.1000	ND	
Alpha-terpinene	99-86-5	0.1000	ND	
Terpineol	8006-39-1	0.1000	ND	
Fenchol	14575-74-7	0.1000	ND	
Alpha-phellandrene	99-83-2	0.1000	ND	
Camphor	464-49-3	0.1000	ND	
3-Carene	13466-78-9	0.1000	ND	
Alpha-cedrene	469-61-4	0.1000	ND	
Cedrol	77-53-2	0.1000	ND	
Eucalyptol	470-82-6	0.1000	ND	
Fenchone	1195-79-5	0.1000	ND	
Gamma-terpinene	99-85-4	0.1000	ND	
Geranyl Acetate	105-87-3	0.1000	ND	
Isopulegol	89-79-2	0.1000	ND	
Menthol	15356-70-4	0.1000	ND	
Nerol	106-25-2	0.1000	ND	
Nerolidol		0.1000	ND	
Pulegone	89-82-7	0.1000	ND	

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Compound	CAS#	LOQ (%)	%	Relative Concentration
Sabinene	3387-41-5	0.1000	ND	
Sabinene Hydrate	546-79-2	0.1000	ND	

Test Comment: Terpenes tested by GCMS using P-NY210. Unless otherwise stated, all QC passed.

Foreign Matter by microscopy **Pass** Analysis Date: 08/12/2024 4:00 pm

Compound	LOQ (%)	Limits (%)	Result (%)	Status
% Foreign Matter	0.00100	2.0	ND	Pass
Mammalian Exreta	0.00100	0.03	ND	Pass
Stems	0.00100	5.0	ND	Pass

Comment: Physical chemistry was tested using moisture analyzer, water activity meter using P-NY 160. Unless otherwise stated, all QC passed.

Moisture Content **Pass** Analysis Date: 08/12/2024 4:00 pm

Compound	LOQ (%)	Limits (%)	Result (%)	Status
Moisture	1.2	5 - 15	12.9	Pass

Comment: Physical chemistry was tested using moisture analyzer, water activity meter using P-NY 160. Unless otherwise stated, all QC passed.

Water Activity **Pass** Analysis Date: 08/12/2024 4:00 pm

Compound	LOQ (Aw)	Limits (Aw)	Result (Aw)	Status
Water Activity	0.05	0.65	0.62	Pass

Comment: Physical chemistry was tested using moisture analyzer, water activity meter using P-NY 160. Unless otherwise stated, all QC passed.

Pesticides by LCMSMS **Pass** Analysis Date: 08/16/2024 12:27 pm

Compound	LOQ (µg/g)	Limits (µg/g)	Result (µg/g)	Status
Abamectin	0.0100	0.500	ND	Pass
Acephate	0.0100	0.400	ND	Pass
Acequinocyl	0.0100	2.00	ND	Pass

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Sample #: 5549

Pluto Jar

Pesticides by LCMSMS

Pass

Analysis Date: 08/16/2024 12:27 pm

Compound	LOQ (µg/g)	Limits (µg/g)	Result (µg/g)	Status
Acetamiprid	0.0100	0.200	ND	Pass
Aldicarb	0.0100	0.400	ND	Pass
Azadirachtin	0.0100	1.00	ND	Pass
Azoxystrobin	0.0100	0.200	ND	Pass
Bifenazate	0.0100	0.200	ND	Pass
Bifenthrin	0.0100	0.200	ND	Pass
Boscalid	0.0100	0.400	ND	Pass
Captan	0.0100	1.00	ND	Pass
Carbaryl	0.0100	0.200	ND	Pass
Carbofuran	0.0100	0.200	ND	Pass
Chlorantraniliprole	0.0100	0.200	ND	Pass
Chlordane-alpha	0.0100	1.00	ND	Pass
Chlorfenapyr	0.0100	1.00	ND	Pass
Chlormequat Chloride	0.0100	1.00	ND	Pass
Chlorpyrifos	0.0100	0.200	ND	Pass
Clofentezine	0.0100	0.200	ND	Pass
Coumaphos	0.0100	1.00	ND	Pass
Cyfluthrin	0.0100	1.00	ND	Pass
Cypermethrin	0.0100	1.00	ND	Pass
Daminozide	0.0100	1.00	ND	Pass
Diazinon	0.0100	0.200	ND	Pass
Dichlorvos	0.0100	1.00	ND	Pass
Dimethoate	0.0100	0.200	ND	Pass
Dimethomorph	0.0100	1.00	ND	Pass
Ethoprophos	0.0100	0.200	ND	Pass
Etofenprox	0.0100	0.400	ND	Pass

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Pesticides by LCMSMS

Pass

Analysis Date: 08/16/2024 12:27 pm

Compound	LOQ (µg/g)	Limits (µg/g)	Result (µg/g)	Status
Etoazole	0.0100	0.200	ND	Pass
Fenhexamid	0.0100	1.00	ND	Pass
Fenoxycarb	0.0100	0.200	ND	Pass
Fenpyroximate	0.0100	0.400	ND	Pass
Fipronil	0.0100	0.400	ND	Pass
Flonicamid	0.0100	1.00	ND	Pass
Fludioxonil	0.0100	0.400	ND	Pass
Hexythiazox	0.0100	1.00	ND	Pass
Imazalil	0.0100	0.200	ND	Pass
Imidacloprid	0.0100	0.400	ND	Pass
Indolebutyric Acid	0.0100	1.00	ND	Pass
Kresoxim-methyl	0.0100	0.400	ND	Pass
Malathion	0.0100	0.200	ND	Pass
Metalaxyl	0.0100	0.200	ND	Pass
Methiocarb	0.0100	0.200	ND	Pass
Methomyl	0.0100	0.400	ND	Pass
Methyl Parathion	0.0100	0.200	ND	Pass
Mevinphos	0.0100	1.00	ND	Pass
MGK-264	0.0100	0.200	ND	Pass
Myclobutanil	0.0100	0.200	ND	Pass
Naled	0.0100	0.500	ND	Pass
Oxamyl	0.0100	1.00	ND	Pass
Paclobutrazol	0.0100	0.400	ND	Pass
Pentachloronitrobenzene	0.0100	1.00	ND	Pass
Permethrins, Total	0.0100	0.200	ND	Pass
Phosmet	0.0100	0.200	ND	Pass

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Pesticides by LCMSMS

Pass

Analysis Date: 08/16/2024 12:27 pm

Compound	LOQ (µg/g)	Limits (µg/g)	Result (µg/g)	Status
Piperonyl Butoxide	0.0100	2.00	ND	Pass
Prallethrin	0.0100	0.200	ND	Pass
Propiconazole	0.0100	0.400	ND	Pass
Propoxur	0.0100	0.200	ND	Pass
Pyrethrins Total	0.0100	1.00	ND	Pass
Pyridaben	0.0100	0.200	ND	Pass
Spinetoram Total	0.0100	1.00	ND	Pass
Spinosad Total	0.0100	0.200	ND	Pass
Spiromesifen	0.0100	0.200	ND	Pass
Spirotetramat	0.0100	0.200	ND	Pass
Spiroxamine	0.0100	0.200	ND	Pass
Tebuconazole	0.0100	0.400	ND	Pass
Thiacloprid	0.0100	0.200	ND	Pass
Thiamethoxam	0.0100	0.200	ND	Pass
Trifloxystrobin	0.0100	0.200	ND	Pass

Comment: Pesticides tested by LCMSMS by using P-NY150. Unless otherwise stated, all QC passed.

Mycotoxins

Pass

Analysis Date: 08/16/2024 12:27 pm

Compound	LOQ (µg/g)	Limits (µg/g)	Result (µg/g)	Status
Aflatoxin B1	0.0050	0.020	ND	Pass
Aflatoxin B2	0.0050	0.020	ND	Pass
Aflatoxin G1	0.0050	0.020	ND	Pass
Aflatoxin G2	0.0050	0.020	ND	Pass
Ochratoxin A	0.0050	0.020	ND	Pass
Total Aflatoxin	0.0050	0.020	ND	Pass

Comment: Mycotoxin contamination tested by LCMSMS using P-NY125. Unless otherwise stated, all QC passed.

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Metals		Pass		Analysis Date: 08/17/2024 2:11 pm	
Compound	LOQ (µg/g)	Limits (µg/g)	Result (µg/g)	Status	
Antimony	0.0100	2.00	ND	Pass	
Arsenic	0.00100	0.200	ND	Pass	
Cadmium	0.00150	0.200	0.0280	Pass	
Chromium	0.280	110	0.541	Pass	
Copper	0.0750	30.0	7.73	Pass	
Lead	0.00250	0.500	0.132	Pass	
Mercury	0.000500	0.100	0.00300	Pass	
Nickel	0.0100	5.00	0.0377	Pass	

Comment: Heavy Metal contamination tested by ICPMS using P-NY140. Unless otherwise stated, all QC passed.

Microbials Count/Qualitative		Pass		Analysis Date: 08/14/2024 2:55 pm	
Compound	LOQ (CFU/g)	Limits (CFU/g)	Result (CFU/g)	Status	
Aspergillus flavus Qualitative	1	0	Not Detected	Pass	
Aspergillus fumigatus Qualitative	1	0	Not Detected	Pass	
Aspergillus niger Qualitative	1	0	Not Detected	Pass	
Aspergillus terreus Qualitative	1	0	Not Detected	Pass	
Salmonella Qualitative	1	0	Not Detected	Pass	
Shiga Toxin-Producing E. coli Qualitative	1	0	Not Detected	Pass	
Total Aerobic Bacteria	10		2000	Pass	
Total Yeast & Mold	10		18000	Pass	

Comment: Microbial contamination tested by Petrifilm plates and qPCR using P-NY120. Unless otherwise stated, all QC passed.
Due to COA validation limitations: "Not Detected" = "Absent" and "Detected" = "Presumptive Presence". Acceptance Limits: "0" = "Absence" and "1" = "Presence". "Passed" for an adult-use product implies the results contain less than 1,000,000 cfu/g.

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