

HIGH NORTH ID:
00467547
Date: 2024-04-23
Certificate: 1713894074



High North Inc.
241 Hanlan Rd, Unit 7
Woodbridge, ON, L4L 3R7
1-416-864-6119
LIC-P4PNJMAC20-2022

Client:

Name:

Product:

Lot:

Matrix:

Sub-matrix:

Sampled:

Received:

Cap Junky

S-CAP-2023-04

Flower

Dried Flower

2024-04-15

2024-04-16


Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			30.1100	301.0997
Total CBD [(CBDA x 0.877) + CBD]			0.0938	0.9381
THCA-A	0.03	0.06	33.8229	338.2288
CBGA	0.03	0.06	1.6052	16.0521
CBCA	0.03	0.06	0.4520	4.5200
D9-THC	0.03	0.06	0.4473	4.4730
THCVA	0.03	0.06	0.2639	2.6391
CBG	0.03	0.06	0.1240	1.2402
CBDA	0.03	0.06	0.1070	1.0697
CBC	0.03	0.06	ND	ND
D8-THC	0.03	0.06	ND	ND
CBCVA	0.03	0.06	ND	ND
CBN	0.03	0.06	ND	ND
CBCV	0.03	0.06	ND	ND
THCV	0.03	0.06	ND	ND
CBD	0.03	0.06	ND	ND
CBDV	0.03	0.06	ND	ND
CBDVA	0.03	0.06	ND	ND
Total of all quantified cannabinoids:			36.8223	368.2229

Moisture Analysis	Result
Loss on Drying (Moisture Analyzer)	9.20%

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Trans-Caryophyllene	0.0011	0.005	0.9730
Beta-Myrcene	0.0004	0.005	0.7525
(R)-(+)-Limonene	0.0006	0.005	0.6794
Farnesene*	0.0029	0.010	0.5158
Alpha-Humulene	0.0002	0.005	0.2420
Linalool	0.0006	0.005	0.2190

Abbreviations: wt% = percentage of weight, CFU = colony forming units, ppm = Parts per million, ppb = Parts per billion, ND = None Detected, BLQ = Below Limit of Quantification, LOQ = Limit of Quantification, LOD = Limit of Detection, RL = Reporting Limit, * = Mixture of Isomers

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Terpene Analysis	LOD (%)	LOQ (%)	wt%
Beta-Pinene	0.0004	0.005	0.0872
Alpha-Bisabolol	0.0011	0.005	0.0842
Alpha-Terpineol	0.0007	0.005	0.0828
(R)-Endo-(+)-Fenchyl Alcohol	0.0005	0.005	0.0632
Alpha-Pinene	0.0002	0.005	0.0627
Camphene	0.0009	0.005	0.0175
Terpinolene	0.0005	0.005	0.0102
Borneol	0.0005	0.005	0.0072
Caryophyllene oxide	0.0009	0.005	0.0071
Fenchone	0.0003	0.005	BLQ
Sabinene Hydrate	0.0006	0.005	BLQ
Alpha-Terpinene	0.0004	0.005	BLQ
Squalene	0.0015	0.005	ND
Phytol*	0.0030	0.010	ND
Nootkatone	0.0009	0.005	ND
Farnesol*	0.0032	0.010	ND
Phytane	0.0006	0.005	ND
(+)-Cedrol	0.0004	0.005	ND
Guaiol	0.0013	0.005	ND
trans-Nerolidol	0.0005	0.005	ND
cis-Nerolidol	0.0012	0.005	ND
Valencene	0.0006	0.005	ND
Eugenol	0.0010	0.005	ND
Alpha-Cedrene	0.0004	0.005	ND
Geranyl acetate	0.0007	0.005	ND
Carvacrol	0.0005	0.005	ND
Thymol	0.0006	0.005	ND
d-Valerolactam (2-piperidone)	0.0015	0.005	ND
(-)-Piperitone	0.0012	0.005	ND
Isobornyl Acetate	0.0005	0.005	ND
Carvone	0.0006	0.005	ND
Pulegone	0.0006	0.005	ND
Verbenone	0.0006	0.005	ND
Citral*	0.0015	0.005	ND
Geraniol	0.0005	0.005	ND
Safranal	0.0004	0.005	ND
Nerol	0.0007	0.005	ND
Citronellol	0.0008	0.005	ND
Octyl Acetate	0.0005	0.005	ND
Terpinen-4-ol	0.0017	0.005	ND
Camphor	0.0005	0.005	ND
Isoborneol	0.0005	0.005	ND
Menthol (Hexahydrothymol)	0.0013	0.005	ND
Menthone*	0.0015	0.005	ND

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Terpene Analysis	LOD (%)	LOQ (%)	wt%
Isopulegol	0.0010	0.005	ND
Alpha-Thujone	0.0010	0.005	ND
Gamma-Terpinene	0.0002	0.005	ND
Eucalyptol	0.0011	0.005	ND
Cymene*	0.0004	0.005	ND
Ocimene	0.0017	0.005	ND
Alpha-Phellandrene	0.0010	0.005	ND
(1S)-3-Carene	0.0009	0.005	ND
Sabinene	0.0003	0.005	ND
Total of all quantified terpenes:			3.804

Mycotoxin Analysis	LOD (ppb)	LOQ (ppb)	RL (ppb)	Result (ppb)	Status
Aflatoxin-B1	0.5000	2	2	ND	PASS
Aflatoxin-B2	0.5000	2		ND	
Aflatoxin-G1	0.3000	2		ND	
Aflatoxin-G2	0.6000	2		ND	
Sum of Aflatoxins:			4	0	PASS

Microbial Analysis	LOD (CFU/g)	RL (CFU/g)	Result (CFU/g)	Status
Total Aerobic Count	10	100,000	< 10	PASS
Total Yeast and Mold Count	100	1,000	< 100	PASS
Bile-Tolerant Gram-Negative	100	1,000	< 100	PASS
Salmonella			Absent in 10g	PASS
E.coli			Absent in 10g	PASS


Heavy Metals Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Arsenic	0.034	0.2	0.2	ND	PASS
Cadmium	0.016	0.06	0.3	ND	PASS
Lead	0.014	0.49	0.5	ND	PASS
Mercury	0.009	0.06	0.1	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Abamectin	0.0283	0.10	0.10	ND	PASS
Acephate	0.0034	0.02	0.02	ND	PASS
Acequinocyl	0.0080	0.03	0.03	ND	PASS
Acetamiprid	0.0076	0.10	0.10	ND	PASS
Aldicarb	0.0799	1.00	1.00	ND	PASS
Allethrin	0.0410	0.20	0.20	ND	PASS
Azadirachtin	0.6407	1.00	1.00	ND	PASS
Azoxystrobin	0.0031	0.02	0.02	ND	PASS
Benzovindiflupyr	0.0053	0.02	0.02	ND	PASS
Bifenazate	0.0053	0.02	0.02	ND	PASS
Bifenthrin	0.1389	1.00	1.00	ND	PASS
Boscalid	0.0051	0.02	0.02	ND	PASS
Buprofezin	0.0037	0.02	0.02	ND	PASS
Carbaryl	0.0068	0.05	0.05	ND	PASS
Carbofuran	0.0030	0.02	0.02	ND	PASS
Chlorantraniliprole	0.0051	0.02	0.02	ND	PASS
Chlorfenapyr	0.0155	0.05	0.05	ND	PASS
Chlorpyrifos	0.0081	0.04	0.04	ND	PASS
Clofentezine	0.0066	0.02	0.02	ND	PASS
Clothianidin	0.0098	0.05	0.05	ND	PASS
Coumaphos	0.0046	0.02	0.02	ND	PASS
Cyantraniliprole	0.0060	0.02	0.02	ND	PASS
Cyfluthrin	0.0432	0.20	0.20	ND	PASS
Cypermethrin	0.0760	0.30	0.30	ND	PASS
Cyprodinil	0.0477	0.25	0.25	ND	PASS
Daminozide	0.0200	0.10	0.10	ND	PASS
Deltamethrin	0.0913	0.50	0.50	ND	PASS
Diazinon	0.0050	0.02	0.02	ND	PASS
Dichlorvos	0.0279	0.10	0.10	ND	PASS
Dimethoate	0.0048	0.02	0.02	ND	PASS
Dimethomorph	0.0143	0.05	0.05	ND	PASS
Dinotefuran	0.0098	0.10	0.10	ND	PASS
Dodemorph	0.0074	0.05	0.05	ND	PASS
Endosulfan-alpha	0.0462	0.20	0.20	ND	PASS
Endosulfan-beta	0.0147	0.05	0.05	ND	PASS
Endosulfan sulfate	0.0108	0.05	0.05	ND	PASS
Ethoprophos	0.0058	0.02	0.02	ND	PASS
Etofenprox	0.0058	0.05	0.05	ND	PASS
Etoxazole	0.0025	0.02	0.02	ND	PASS
Etridiazole	0.0064	0.03	0.03	ND	PASS
Fenoxycarb	0.0062	0.02	0.02	ND	PASS
Fenpyroximate	0.0042	0.02	0.02	ND	PASS
Fensulfothion	0.0108	0.02	0.02	ND	PASS
Fenthion	0.0059	0.02	0.02	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Fenvalerate	0.0414	0.10	0.10	ND	PASS
Fipronil	0.0085	0.06	0.06	ND	PASS
Flonicamid	0.0152	0.05	0.05	ND	PASS
Fludioxonil	0.0061	0.02	0.02	ND	PASS
Fluopyram	0.0067	0.02	0.02	ND	PASS
Hexythiazox	0.0026	0.01	0.01	ND	PASS
Imazalil	0.0105	0.05	0.05	ND	PASS
Imidacloprid	0.0037	0.02	0.02	ND	PASS
Iprodione	0.2626	1.00	1.00	ND	PASS
Kinoprene	0.0717	0.50	0.50	ND	PASS
Kresoxim-methyl	0.0066	0.02	0.02	ND	PASS
Malathion	0.0053	0.02	0.02	ND	PASS
Metalaxyl	0.0041	0.02	0.02	ND	PASS
Methiocarb	0.0050	0.02	0.02	ND	PASS
Methomyl	0.0059	0.05	0.05	ND	PASS
Methoprene	0.3858	2.00	2.00	ND	PASS
Mevinphos	0.0092	0.05	0.05	ND	PASS
MGK-264	0.0130	0.05	0.05	ND	PASS
Myclobutanil	0.0055	0.02	0.02	ND	PASS
Naled	0.0166	0.10	0.10	ND	PASS
Novaluron	0.0134	0.05	0.05	ND	PASS
Oxamyl	0.0675	3.00	3.00	ND	PASS
Paclobutrazol	0.0054	0.02	0.02	ND	PASS
Parathion-methyl	0.0180	0.05	0.05	ND	PASS
Permethrin	0.1182	0.50	0.50	ND	PASS
Phenothrin	0.0116	0.05	0.05	ND	PASS
Phosmet	0.0064	0.02	0.02	ND	PASS
Piperonyl butoxide	0.0185	0.20	0.20	ND	PASS
Pirimicarb	0.0047	0.02	0.02	ND	PASS
Prallethrin	0.0126	0.05	0.05	ND	PASS
Propiconazole	0.0324	0.10	0.10	ND	PASS
Propoxur	0.0058	0.02	0.02	ND	PASS
Pyraclostrobin	0.0034	0.02	0.02	ND	PASS
Pyrethrins	0.0237	0.05	0.05	ND	PASS
Pyridaben	0.0069	0.05	0.05	ND	PASS
Quintozene	0.0062	0.02	0.02	ND	PASS
Resmethrin	0.0149	0.10	0.10	ND	PASS
Spinetoram	0.0043	0.02	0.02	ND	PASS
Spinosad	0.0237	0.10	0.10	ND	PASS
Spirodiclofen	0.0326	0.25	0.25	ND	PASS
Spiromesifen	0.1899	3.00	3.00	ND	PASS
Spirotetramat	0.0040	0.02	0.02	ND	PASS
Spiroxamine	0.0135	0.10	0.10	ND	PASS
Tebuconazole	0.0158	0.05	0.05	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Tebufenozide	0.0040	0.02	0.02	ND	PASS
Teflubenzuron	0.0153	0.05	0.05	ND	PASS
Tetrachlorvinphos	0.0060	0.02	0.02	ND	PASS
Tetramethrin	0.0164	0.10	0.10	ND	PASS
Thiacloprid	0.0031	0.02	0.02	ND	PASS
Thiamethoxam	0.0035	0.02	0.02	ND	PASS
Thiophanate-methyl	0.0102	0.05	0.05	ND	PASS
Trifloxystrobin	0.0055	0.02	0.02	ND	PASS

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Details of Testing

Cannabinoid Analysis

LAB-MTD-020: Determination of 16 Cannabinoids in Cannabis Flowers, Extracts, Topicals, Tablets and Isolates by HPLC
LAB-MTD-039: Determination of 11 Cannabinoids in Cannabis Edibles by HPLC
LAB-MTD-051: Assay of Cannabinoids in Cannabis Flower as per DAB by HPLC
LAB-MTD-052: Identification of CBD and THCA as per DAB by Thin-Layer Chromatography

Terpene Analysis

LAB-MTD-044: Determination of Terpene Content in Cannabis Dried Flower, Fresh Flower and Extracts by GC-MS

Pesticide Analysis

LAB-MTD-010: Determination of Health Canada Pesticide Residues and Toxins in Dried Cannabis Flower by LC-MS/MS and GC-MS/MS
LAB-MTD-040: Determination of EP 2.8.13 Pesticide Residues in Cannabis Extracts by GC-MS/MS
LAB-MTD-041: Determination of EP 2.8.13/USP 561 Pesticide Residues in Cannabis Flower by GC-MS/MS and LC-MS/MS
LAB-MTD-046: Determination of Health Canada Pesticides and Toxins in Cannabis Extracts by LC-MS/MS
LAB-MTD-048: Determination of Health Canada Pesticide Residues and Toxins in Fresh Cannabis Flower by LC-MS/MS and GC-MS/MS
LAB-MTD-055: Determination of Israel Pesticide Residues in Dried/Fresh Cannabis by LC-MS/MS and GC-MS/MS

Mycotoxin Analysis

LAB-MTD-010: Determination of Health Canada Pesticide Residues and Toxins in Dried Cannabis Flower by LC-MS/MS and GC-MS/MS
LAB-MTD-029: Determination of Toxins in Tablet Samples by LC-MS/MS
LAB-MTD-037: Determination of Mycotoxins in Topical/Cream Samples by LC-MS/MS
LAB-MTD-046: Determination of Health Canada Pesticides and Toxins in Cannabis Extracts by LC-MS/MS
LAB-MTD-048: Determination of Health Canada Pesticide Residues and Toxins in Fresh Cannabis Flower by LC-MS/MS and GC-MS/MS

Flavonoid Analysis

LAB-MTD-045: Determination of Flavonoids in Cannabis Dried Flower, Fresh Flower, and Extracts by LC-MS/MS

Peroxide Value, p-Anisidine and Acidity (FFA) Analysis

LAB-MTD-049: Determination of Peroxide Value, p-Anisidine, and Acidity (FFA)

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Details of Testing

Microbial Analysis

- MIC-MTD-001: Microbial Analysis of Cannabis Flower and Oil by qPCR
- MIC-MTD-006: Determination of Viruses in Cannabis via qPCR and ELISA
- MIC-MTD-007: Microbial Analysis of Cannabis by Culture Techniques
- MIC-MTD-009: Cannabis Gender Determination by qPCR
- MIC-MTD-010: Identification A and Identification B of Cannabis by DAB Monograph
- MIC-MTD-011: Analysis of Shigella Species in Cannabis and Cannabis Infused Products
- MIC-MTD-008: Analysis of Listeria Monocytogenes in Cannabis and Cannabis Infused Products
- MIC-MTD-012: Microbial Analysis of Cannabis and Cannabis Infused Products by TEMPO

Moisture Analysis

- LAB-MTD-017: Determination of Moisture Content in Cannabis Flower
- LAB-MTD-031: Water Activity Meter Setup and Operation
- LAB-MTD-053: Determination of Moisture Content by Loss on Drying Technique using Vacuum Oven
- LAB-MTD-056: Determination of Moisture Content by Karl Fischer Titration

Sample Appearance and Foreign Matter

- LAB-MTD-022: Sample Appearance and Detection of Foreign Matter Content in Cannabis Samples

Total Ash Analysis

- LAB-MTD-043: Total Ash by Muffle Furnace in Cannabis Products

Residual Solvents Analysis

- LAB-MTD-036: Determination of Residual Solvents in Cannabis Oil by GC-MS
- LAB-MTD-028: Determination of Residual Solvents in Tablet Samples by GC-MS
- LAB-MTD-034: Determination of Propane and Butane in Cannabis Oil by GC-MS
- LAB-MTD-038: Determination of Toluene in Cannabis Isolate by GC-MS
- LAB-MTD-054: Determination of Acetic Acid in Flavour, Cannabis Vape Mix Oil and Cannabis Infused Flower by GC-MS

Heavy Metal Analysis

- LAB-MTD-027: Determination of Heavy Metals in Cannabis Samples (Cream/Topicals, Tablets and Edibles) by ICP-MS
- LAB-MTD-050: Multi-Element Analysis of Cannabis Dried Flower, Fresh Flower, Extracts, and Rolling Papers by ICP-MS
- LAB-MTD-058: Determination of Palladium (Pd) in Cannabis Dried Flower, Fresh Flower and Extracts by ICP-MS

pH Analysis

- MIC-MTD-013: Determination of pH using pH Meter

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