HIGH NORTH ID: 00084070

Date: 2021-09-16

Certificate: 1631808197



High North Inc. 241 Hanlan Rd, Unit 7 Woodbridge, ON, L4L 3R7 1-416-864-6119 LIC-P4PNJMAC20-2019

Client: Partake Cannabis Inc.

9336 37 av NW, 9336 37 ave,

Edmonton, AB, T6E 5K3

Strain: GMO Lot: 21-002B Matrix: Flower

Sub-matrix: Milled Flower Sampled: 2021-09-09 Received: 2021-09-10

# **Certificate of Analysis**

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC] Total CBD [(CBDA x 0.877) + CBD]	0.0000	0.02	21.470 0.068	214.695 0.679
THCA-A D9-THC	0.0090 0.0093	0.03 0.03	23.265 1.066	232.647 10.664
CBGA	0.0041	0.03	0.538	5.38
CBDA	0.0100	0.03	0.077	0.774
CBG	0.0094	0.03	0.07	0.696
CBC	0.0060	0.03	ND	ND
D8-THC	0.0137	0.03	ND	ND
CBN	0.0067	0.03	ND	ND
CBD	0.0069	0.03	ND	ND
THCV	0.0093	0.03	ND	ND
CBDV	0.0090	0.03	ND	ND
Total of all quantified cannabinoids:			25.016	250.161

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Trans-Caryophyllene	0.0002	0.005	0.541
(R)-(+)-Limonene	0.0001	0.005	0.459
Farnesene*	0.0009	0.005	0.399
Beta-Myrcene	0.0003	0.005	0.351
Alpha-Humulene	0.0010	0.005	0.154
alpha-Bisabolol	0.0003	0.005	0.082
Terpineol*	0.0001	0.005	0.062
Beta-Pinene	0.0002	0.005	0.052
(R)-Endo-(+)-Fenchyl	0.0003	0.005	0.048
Alpha-Pinene	0.0003	0.005	0.042
Linalool	0.0003	0.005	0.03

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



Terpene Analysis	LOD (%)	LOQ (%)	wt%
trans-Nerolidol	0.0004	0.005	0.024
Camphene	0.0002	0.005	0.012
Caryophyllene oxide	0.0008	0.005	0.009
Phytol*	0.0013	0.010	BLQ
Terpinolene	0.0003	0.005	0.006
Sabinene Hydrate	0.0001	0.005	BLQ
Gamma-Terpinene	0.0003	0.005	BLQ
Fenchone*	0.0003	0.005	BLQ
(+)-Cedrol	0.0010	0.005	ND
Guaiol	0.0003	0.005	ND
Valencene	0.0002	0.005	ND
cis-Nerolidol	0.0003	0.005	ND
Eugenol	0.0004	0.010	ND
Alpha-Cedrene	0.0002	0.005	ND
Geranyl acetate	0.0002	0.005	ND
Geraniol	0.0007	0.005	ND
Pulegone	0.0002	0.005	ND
Citronellol	0.0003	0.005	ND
Nerol	0.0002	0.005	ND
Isoborneol	0.0002	0.005	ND
Camphor + Borneol*	0.0003	0.010	ND
Isopulegol	0.0004	0.005	ND
Hexahydrothymol	0.0005	0.005	ND
Ocimene*	0.0004	0.005	ND
p-Cymene	0.0003	0.005	ND
Eucalyptol	0.0007	0.005	ND
Alpha-Phellandrene	0.0002	0.005	ND
Alpha-Terpinene	0.0003	0.005	ND
(1S)-3-Carene	0.0007	0.005	ND
Sabinene	0.0013	0.005	ND
Total of all quantified terpenes	:		2.271
Moisture Analysis 11	.53%		
indistal & Alialysis II	.55/0		

None Detected



**Foreign Matter Analysis** 

Mycotoxin Analysis	LOD (ppb)	LOQ (ppb)	RL (ppb)	Result (ppb)	
Aflatoxin-B1	1.0	2	2	ND	PASS
Aflatoxin-B2	0.9	2		ND	PASS
Aflatoxin-G1	0.7	2		ND	PASS
Aflatoxin-G2	1.0	2		ND	PASS
Sum of Aflatoxins:			4	0	PASS
Ochratoxin-A	8.7	20	20	ND	PASS
Microbial Analysis			RL (CFU/g)	Result (CFU/g)	Status
Total Aerobic Count			100,000	ND	PASS
Total Yeast and Mold Count			1,000	267	PASS
Bile-Tolerant Gram-Negative			1,000	ND	PASS
E.coli/Salmonella				Absent	PASS
Heavy Metals Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Arsenic	0.05	0.2	0.2	ND	PASS
Cadmium	0.01	0.05	0.3	0.0596	PASS
Lead	0.02	0.5	0.5	ND	PASS
Mercury	0.01	0.05	0.1	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Abamectin	0.0057	0.1	0.1	ND	PASS
Acephate	0.0100	0.02	0.02	ND	PASS
Acequinocyl	0.0115	0.03	0.03	ND	PASS
Acetamiprid	0.0017	0.1	0.1	ND	PASS
Aldicarb	0.0442	1	1	ND	PASS
Allethrin	0.0314	0.2	0.2	ND	PASS
Azadirachtin	0.0729	1	1	ND	PASS
Azoxystrobin	0.0029	0.02	0.02	ND	PASS
Benzovindiflupyr	0.0038	0.02	0.02	ND	PASS
Bifenazate	0.0022	0.02	0.02	ND	PASS
Bifenthrin	0.0660	1	1	ND	PASS
Boscalid	0.0035	0.02	0.02	ND	PASS
Buprofezin	0.0014	0.02	0.02	ND	PASS
Carbaryl	0.0134	0.05	0.05	ND	PASS
Carbofuran	0.0018	0.02	0.02	ND	PASS
Chlorantraniliprole	0.0039	0.02	0.02	ND	PASS
Chlorfenapyr	0.0263	0.05	0.05	ND	PASS
Chlorpyrifos	0.0033	0.04	0.04	ND	PASS
Clofentezine	0.0022	0.02	0.02	ND	PASS
Clothianidin	0.0220	0.05	0.05	ND	PASS
Coumaphos	0.0038	0.02	0.02	ND	PASS
Cyantraniliprole	0.0032	0.02	0.02	ND	PASS
Cyfluthrin	0.0653	0.2	0.2	ND	PASS
Cypermethrin	0.1550	0.3	0.3	ND	PASS
Cyprodinil	0.0139	0.25	0.25	ND	PASS
Daminozide	0.0138	0.1	0.1	ND	PASS
Deltamethrin	0.0060	0.5	0.5	ND	PASS
Diazinon	0.0016	0.02	0.02	ND	PASS
Dichlorvos	0.0072	0.1	0.1	ND	PASS
Dimethoate	0.0053	0.02	0.02	ND	PASS
Dimethomorph	0.0023	0.05	0.05	ND	PASS
Dinotefuran	0.0076	0.1	0.1	ND	PASS
Dodemorph	0.0026	0.05	0.05	ND	PASS
Endosulfan-alpha	0.0357	0.2	0.2	ND	PASS
Endosulfan-beta	0.0173	0.05	0.05	ND	PASS
Endosulfan sulfate	0.0029	0.05	0.05	ND	PASS
Ethoprophos	0.0060	0.02	0.02	ND	PASS
Etofenprox	0.0059	0.05	0.05	ND	PASS
Etoxazole	0.0007	0.02	0.02	ND	PASS
Etridiazol	0.0036	0.03	0.03	ND	PASS
Fenoxycarb	0.0031	0.02	0.02	ND	PASS
Fenpyroximate	0.0008	0.02	0.02	ND	PASS
Fensulfothion	0.0046	0.02	0.02	ND	PASS



Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Fenthion	0.0085	0.02	0.02	ND	PASS
Fenvalerate	0.0767	0.1	0.1	ND	PASS
Fipronil	0.0013	0.06	0.06	ND	PASS
Flonicamid	0.0041	0.05	0.05	ND	PASS
Fludioxonil	0.0043	0.02	0.02	ND	PASS
Fluopyram	0.0014	0.02	0.02	ND	PASS
Hexythiazox	0.0016	0.01	0.01	ND	PASS
Imazalil	0.0060	0.05	0.05	ND	PASS
Imidacloprid	0.0018	0.02	0.02	ND	PASS
Iprodione .	0.1217	1	1	ND	PASS
Kinoprene	0.1142	0.5	0.5	ND	PASS
Kresoxim-methyl	0.0069	0.02	0.02	ND	PASS
Malathion	0.0041	0.02	0.02	ND	PASS
Metalaxyl	0.0016	0.02	0.02	ND	PASS
Methiocarb	0.0027	0.02	0.02	ND	PASS
Methomyl	0.0093	0.05	0.05	ND	PASS
Methoprene	0.4544	2	2	ND	PASS
Mevinphos	0.0044	0.05	0.05	ND	PASS
MGK-264	0.0035	0.05	0.05	ND	PASS
Myclobutanil	0.0062	0.02	0.02	ND	PASS
Naled	0.0218	0.1	0.1	ND	PASS
Novaluron	0.0019	0.05	0.05	ND	PASS
Oxamyl	0.0123	3	3	ND	PASS
Paclobutrazol	0.0187	0.02	0.02	ND	PASS
Parathion-methyl	0.0312	0.05	0.05	ND	PASS
Permethrin	0.0609	0.5	0.5	ND	PASS
Phenothrin	0.0294	0.05	0.05	ND	PASS
Phosmet	0.0046	0.02	0.02	ND	PASS
Piperonyl butoxide	0.0010	0.2	0.2	ND	PASS
Pirimicarb	0.0020	0.02	0.02	ND	PASS
Prallethrin	0.0097	0.05	0.05	ND	PASS
Propiconazole	0.0687	0.1	0.1	ND	PASS
Propoxur	0.0035	0.02	0.02	ND	PASS
Pyraclostrobin	0.0020	0.02	0.02	ND	PASS
Pyrethrins	0.0135	0.05	0.05	ND	PASS
Pyridaben	0.0010	0.05	0.05	ND	PASS
Quintozene	0.0074	0.02	0.02	ND	PASS
Resmethrin	0.0090	0.1	0.1	ND	PASS
Spinetoram	0.0012	0.02	0.02	ND	PASS
Spinosad	0.0020	0.1	0.1	ND	PASS
Spirodiclofen	0.0140	0.25	0.25	ND	PASS
Spiromesifen	0.0025	3	3	ND	PASS
Spirotetramat	0.0027	0.02	0.02	ND	PASS



Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Spiroxamine	0.0013	0.1	0.1	ND	PASS
Tebuconazole	0.0020	0.05	0.05	ND	PASS
Tebufenozide	0.0021	0.02	0.02	ND	PASS
Teflubenzuron	0.0015	0.05	0.05	ND	PASS
Tetrachlorvinphos	0.0026	0.02	0.02	ND	PASS
Tetramethrin	0.0239	0.1	0.1	ND	PASS
Thiacloprid	0.0014	0.02	0.02	ND	PASS
Thiamethoxam	0.0076	0.02	0.02	ND	PASS
Thiophanate-methyl	0.0174	0.05	0.05	ND	PASS
Trifloxystrobin	0.0018	0.02	0.02	ND	PASS

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# **Details of Testing**

# **Cannabinoid Analysis**

Analysis of 11 Cannabinoids by HPLC & UHPLC

Method LAB-MTD-020: Flower (LOQ 0.06%), Oil (LOQ 0.03%), Extracts (LOQ 0.6%)

Method LAB-MTD-021: Isolates (LOQ 0.06%)

Method LAB-MTD-023: Tablets & Granules (LOQ 0.025%)

Method LAB-MTD-030: Topicals (LOQ 0.005%)

### **Terpene Analysis**

Profile of 42 terpenes by GC/MS

Method LAB-MTD-035: Cannabis Flower, Oil

# **Pesticide Analysis**

Determination of 96 Pesticide Residues by LC/MS/MS and GC/MS/MS

Method LAB-MTD-010: Cannabis Flower, Oil

#### **Mycotoxin Analysis**

Determination of Aflatoxins B1, B2, G1, G2 and Ochratoxin-A by LC/MS/MS

Method LAB-MTD-010: Cannabis Flower, Oil

Method LAB-MTD-029: Tablets Method LAB-MTD-037: Topicals

#### **Heavy Metal Analysis**

Determination of Heavy Metal contamination (Arsenic, Cadmium, Lead & Mercury) by ICP/MS

Method LAB-MTD-027: Cannabis Flower, Oil, Topicals, Tablets

# **Residual Solvents Analysis**

Determination of 24 Residual Solvents by GC/MS

Method LAB-MTD-036: Cannabis Oil Method LAB-MTD-028: Tablets

# **Determination of Butane and Propane Residual Solvents in Cannabis Oil**

Method LAB-MTD-034 (GC/MS): Cannabis Oil

# Microbial Analysis, Powdery Mildew & Gender Determination

Molecular detection and quantitation by PCR & qPCR

Cannabis Flower, Oil, Cannabis-Infused Products

Method MIC-MTD-001 (TAMC, TYMC, BTGN, E.coli, Salmonella, Staph/Pseudomonas)

Method MIC-MTD-005: (Powdery Mildew & Gender Determination)

#### **Moisture Analysis**

Water Activity & Moisture Content (Loss on Drying)

Method LAB-MTD-017 (Loss on Drying; Dry flower only)

Method LAB-MTD-031 (Water activity, a.,.)

#### Foreign Matter Analysis

Visual/Magnified Inspection for Foreign Matter Method LAB-MTD-022

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

