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CERTIFICATE OF ANALYSIS

prepared for: Great Northern Harvest
CENTENNIAL, CO 80111

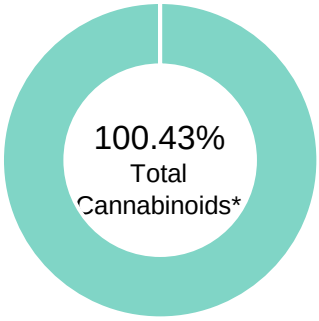
J530 180 LOT 255

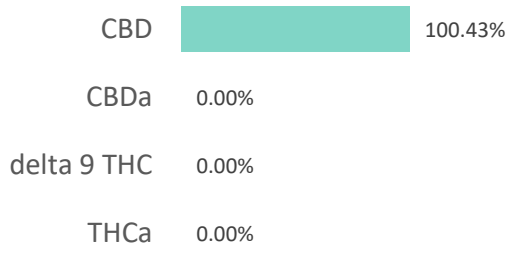
Batch ID:	ISO061720	**Test ID:**	6881773.006
Reported:	18-Jun-2020	**Method:**	TM14
Type:	Concentrate		
Test:	Potency		

CBD ISOLATE

GREAT NORTHERN HARVEST LTD

CANNABINOID PROFILE





Compound	LOQ (%)	Result (%)	Result (mg/g)
Delta 9-Tetrahydrocannabinolic acid (THCA-A)	0.35	ND	ND
Delta 9-Tetrahydrocannabinol (Delta 9THC)	0.18	ND	ND
Cannabidiolic acid (CBDA)	0.46	ND	ND
Cannabidiol (CBD)	0.26	100.43	1004.3
Delta 8-Tetrahydrocannabinol (Delta 8THC)	0.19	ND	ND
Cannabinolic Acid (CBNA)	0.49	ND	ND
Cannabinol (CBN)	0.21	ND	ND
Cannabigerolic acid (CBGA)	0.31	ND	ND
Cannabigerol (CBG)	0.17	ND	ND
Tetrahydrocannabivarinic Acid (THCVA)	0.30	ND	ND
Tetrahydrocannabivarin (THCV)	0.16	ND	ND
Cannabidivarinic Acid (CBDVA)	0.42	ND	ND
Cannabidivarin (CBDV)	0.23	ND	ND
Cannabichromenic Acid (CBCA)	0.27	ND	ND
Cannabichromene (CBC)	0.32	ND	ND
Total Cannabinoids		**100.43**	**1004.30**
Total Potential THC**		ND	ND
Total Potential CBD**		100.43	1004.30

% = % (w/w) = Percent (Weight of Analyte / Weight of Product)

* Total Cannabinoids result reflects the absolute sum of all cannabinoids detected.

** Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step.
Total THC = THC + (THCa *(0.877)) and Total CBD = CBD + (CBDa *(0.877))

ND = None Detected (Defined by Dynamic Range of the method)

NOTES:
N/A

FINAL APPROVAL

Ryan Weems
18-Jun-2020
4:57 PM

PREPARED BY / DATE

Ben Minton
18-Jun-2020
5:14 PM

APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC. ISO/IEC 17025:2005 Accredited A2LA Certificate Number 4329.02

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Certificate #4329.02

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CERTIFICATE OF ANALYSIS

prepared for: Great Northern Harvest
CENTENNIAL, CO 80111

J530 180 LOT 255

Batch ID:	ISO061720	**Test ID:**	T000081431
Reported:	22-Jun-2020	**Method:**	Concentrate - Test Methods: TM05, TM06
Type:	Concentrate		
Test:	Microbial Contaminants		

MICROBIAL CONTAMINANTS

Contaminant	Result (CFU/g)*
Total Aerobic Count	None Detected
Total Coliforms	None Detected
Total Yeast and Molds	None Detected
E. coli	None Detected
Salmonella	None Detected

** CFU/g = Colony Forming Unit per Gram*

*** Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form.*

Examples: 10^2 = 100 CFU
10^3 = 1,000 CFU
10^4 = 10,000 CFU
10^5 = 100,000 CFU

NOTES:
Free from visual mold, mildew, and foreign matter
TYM: None Detected
Total Aerobic: None Detected
Coliforms: None Detected

FINAL APPROVAL

Nick Tumminaro
22-Jun-2020
1:36 PM
PREPARED BY / DATE

Ben Minton
22-Jun-2020
5:09 PM
APPROVED BY / DATE

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Certificate #4329.03

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CERTIFICATE OF ANALYSIS

prepared for: Great Northern Harvest
CENTENNIAL, CO 80111

J530 180 LOT 255

Batch ID:	ISO061720	**Test ID:**	T000081430
Reported:	18-Jun-2020	**Method:**	TM04
Type:	0		
Test:	Residual Solvents		

RESIDUAL SOLVENTS

Solvent	Dynamic Range (ppm)	Result (ppm)
Propane	86 - 1719	*ND
Butanes (Isobutane, n-Butane)	151 - 3023	*ND
Methanol	59 - 1184	*ND
Pentane	89 - 1773	152
Ethanol	94 - 1878	*ND
Acetone	96 - 1923	*ND
Isopropyl Alcohol	104 - 2076	*ND
Hexane	6 - 117	*ND
Ethyl Acetate	98 - 1958	*ND
Benzene	0.2 - 3.9	*ND
Heptanes	92 - 1840	*ND
Toluene	18 - 352	*ND
Xylenes (m,p,o-Xylenes)	126 - 2527	*ND

* ND = None Detected (Defined by Dynamic Range of the method)

NOTES:
N/A

FINAL APPROVAL

Tyler Wiese
18-Jun-2020
7:05 PM

PREPARED BY / DATE

Ben Minton
18-Jun-2020
7:16 PM

APPROVED BY / DATE

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Certificate #4329.02

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CERTIFICATE OF ANALYSIS

prepared for: Great Northern Harvest

CENTENNIAL, CO 80111

J530 180 LOT 255

Batch ID:	ISO061720	**Test ID:**	T000081433
Reported:	19-Jun-2020	**Method:**	TM19
Type:	Concentrate		
Test:	Metals		

HEAVY METALS

Analyte	Dynamic Range (ppm)	Result (ppm)
Arsenic	0.079 - 7.93	ND
Cadmium	0.075 - 7.50	ND
Mercury	0.078 - 7.78	ND
Lead	0.076 - 7.60	ND

* ND = None Detected (Defined by Dynamic Range of the method)

FINAL APPROVAL

Alex Smith
19-Jun-2020
6:25 AM

PREPARED BY / DATE

Ben Minton
19-Jun-2020
12:36 PM

APPROVED BY / DATE

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CERTIFICATE OF ANALYSIS

prepared for: Great Northern Harvest
CENTENNIAL, CO 80111

J530 180 LOT 255

Batch ID:	ISO061720	**Test ID:**	5333387.0021
Reported:	22-Jun-2020	**Method:**	TM17
Type:	Concentrate		
Test:	Pesticides		

PESTICIDE RESIDUE

Compound	Dynamic Range (ppb)	Result (ppb)
Acephate	53 - 2445	ND*
Acetamiprid	53 - 2445	ND*
Abamectin	>317	NA
Azoxystrobin	53 - 2445	ND*
Bifenazate	53 - 2445	ND*
Boscalid	53 - 2445	ND*
Carbaryl	53 - 2445	ND*
Carbofuran	53 - 2445	ND*
Chlorantraniliprole	53 - 2445	ND*
Chlorpyrifos	53 - 2445	ND*
Clofentezine	317 - 2445	ND*
Diazinon	317 - 2445	ND*
Dichlorvos	>317	ND*
Dimethoate	53 - 2445	ND*
E-Fenpyroximate	53 - 2445	ND*
Etofenprox	53 - 2445	ND*
Etoxazole	317 - 2445	ND*
Fenoxycarb	>53	ND*
Fipronil	53 - 2445	ND*
Flonicamid	53 - 2445	ND*
Fludioxonil	>317	ND*
Hexythiazox	53 - 2445	ND*
Imazalil	317 - 2445	ND*
Imidacloprid	53 - 2445	ND*
Kresoxim-methyl	53 - 2445	ND*

Compound	Dynamic Range (ppb)	Result (ppb)
Malathion	317 - 2445	ND*
Metalaxyl	53 - 2445	ND*
Methiocarb	53 - 2445	ND*
Methomyl	53 - 2445	ND*
MGK 264 1	317 - 2445	ND*
MGK 264 2	317 - 2445	ND*
Myclobutanil	53 - 2445	ND*
Naled	53 - 2445	ND*
Oxamyl	53 - 2445	ND*
Paclobutrazol	53 - 2445	ND*
Permethrin	317 - 2445	ND*
Phosmet	53 - 2445	ND*
Prophos	317 - 2445	ND*
Propoxur	53 - 2445	ND*
Pyridaben	53 - 2445	ND*
Spinosad A	53 - 2445	ND*
Spinosad D	317 - 2445	ND*
Spiromesifen	>317	ND*
Spirotetramat	>317	ND*
Spiroxamine 1	53 - 2445	ND*
Spiroxamine 2	53 - 2445	ND*
Tebuconazole	317 - 2445	ND*
Thiacloprid	53 - 2445	ND*
Thiamethoxam	53 - 2445	ND*
Trifloxystrobin	53 - 2445	ND*

* ND = None Detected (Defined by Dynamic Range of the method)

N/A

FINAL APPROVAL

Tyler Wiese
22-Jun-2020
9:12 PM
PREPARED BY / DATE

Ben Minton
22-Jun-2020
9:21 PM
APPROVED BY / DATE

Testing results are based solely upon the sample submitted to Botanacor Laboratories, LLC, in the condition it was received. Botanacor Laboratories, LLC warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of Botanacor Laboratories, LLC.

