

HIGH NORTH ID:
00340674
Date: 2023-05-30
Certificate: 1685478731



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

Client: PINNRZ x Final Bell
3-1100 Bennett Road,
Bowmanville , ON, L1C 0Y7
Name: PINNRZ x Final Bell
6479688119
rlaw@finalbell.com

Product: Pinnrz Purple
Lot: BB00940-MC-1
Matrix: Flower
Sub-matrix: Milled Flower
Sampled: 2023-05-26
Received: 2023-05-26

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			9.022	90.219
Total CBD [(CBDA x 0.877) + CBD]			5.062	50.621
THCA-A	0.0090	0.06	7.501	75.006
CBDA	0.0100	0.06	4.777	47.774
D9-THC	0.0093	0.06	2.444	24.439
CBD	0.0069	0.06	0.872	8.723
CBGA	0.0041	0.06	0.347	3.473
CBG	0.0094	0.06	0.116	1.163
CBC	0.0060	0.06	ND	ND
D8-THC	0.0137	0.06	ND	ND
CBN	0.0067	0.06	ND	ND
THCV	0.0093	0.06	ND	ND
CBDV	0.0090	0.06	ND	ND
Total of all quantified cannabinoids:			16.058	160.578

Moisture Analysis 6.74%

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

Authorized by:

Ryan Lee
Quality Assurance

Details of Testing

Cannabinoid Analysis

LAB-MTD-020: Determination of 11 Cannabinoids in Cannabis Flower (LOQ 0.06%), Fresh Flower (LOQ 0.015%), Oil (LOQ 0.03%) and Concentrates (LOQ 0.6%) by HPLC and UHPLC

LAB-MTD-021: Determination of Cannabinoids of Individually Isolated Sample by HPLC/UHPLC

LAB-MTD-023: Determination of 11 Cannabinoids in Cannabis Tablets and Granules (LOQ 0.025%) by HPLC/UHPLC

LAB-MTD-030: Determination of 11 Cannabinoids in Cannabis Topicals (LOQ 0.005%) by HPLC/UHPLC

LAB-MTD-039: Determination of 11 Cannabinoids in Cannabis Edibles; Liquid Edibles (LOQ 0.0005%) and Solid Edibles (LOQ 0.005%) by UHPLC

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 Pesticide and Mycotoxins in Cannabis by LC-MS/MS and GC-MS/MS

LAB-MTD-040: Determination of EP Pesticide Residues in Cannabis Oil and Related Products by GC-MS/MS

LAB-MTD-041: Determination of EP Pesticide Residues in Cannabis Flower and Related Products by GC-MS/MS

LAB-MTD-046: Determination of Health Canada Pesticide Residues and Toxins in Cannabis Oil and Related Products 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

Mycotoxin Analysis

LAB-MTD-010: Determination of Pesticide and Mycotoxins in Cannabis 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

Heavy Metal Analysis

LAB-MTD-050: Multi-Element Analysis of Cannabis Dried Flower, Fresh Flower, Extracts, Rolling Papers, and Related Products by ICP-MS

Flavonoid Analysis

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

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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

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

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

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HIGH NORTH ID:
00386276
Date: 2023-09-26
Certificate: 1695744562



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

Client: PINNRZ x Final Bell
3-1100 Bennett Road,
Bowmanville , ON, L1C 0Y7
Name: PINNRZ x Final Bell
6479688119
rlaw@finalbell.com

Product: Pinnrz Purple
Lot: BB00940-PR-1
Matrix: Flower
Sub-matrix: Pre-roll
Sampled: 2023-09-22
Received: 2023-09-22

Certificate of Analysis

Foreign Matter Analysis None Detected

Microbial Analysis	LOD (CFU/g)	RL (CFU/g)	Result (CFU/g)
Salmonella			Absent in 25g
E.coli			Absent in 1g
Total Aerobic Count	12	500,000	< 12
Total Yeast and Mold Count	2	50,000	< 2
Bile-Tolerant Gram-Negative	5	10,000	< 5

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QA Specialist

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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

Moisture Analysis

LAB-MTD-017: Determination of Moisture Content in Cannabis Flower
LAB-MTD-031: Water Activity Meter Setup and Operation
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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

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

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

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

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Authorized by:


Gui Scharlack
QA Specialist

REPORT NO.
C22070-92035

ACCOUNT NUMBER
02677

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664



TO: CRONOS GROWING COMPANY
609 ROAD 3 E
KINGSVILLE, ON N9Y 2E5

ATTN: Diane Lauzon, Mike Kroslak
Phone: 519-733-0300

hereinafter the "Recipient"

CERTIFICATE OF ANALYSIS

PAGE: 1 / 1

LOQ - Limit of Quantification

The results of this report relate to the sample submitted and analyzed.



C22070-92035

Results Authorized By:

Haifeng Song, Ph.D., C.Chem.
Lab Director

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REPORT NO.
C22070-92044

A & L Canada Laboratories Inc.



ACCOUNT NUMBER
02677

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO: CRONOS GROWING COMPANY
609 ROAD 3 E
KINGSVILLE, ON N9Y 2E5

ATTN: Diane Lauzon, Mike Kroslak
Phone: 519-733-0300

hereinafter the "Recipient"

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REPORT NO.
C22070-92072

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CERTIFICATE OF ANALYSIS

PAGE: 1 / 8

CATEGORY: Potency
PO#: 1009-0309
LAB NUMBER: 709382
SAMPLE ID: PJB0000059 LOT0000534A
STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Cannabinoid Profile	RESULT		LOQ		METHOD REFERENCE
	% w/w	mg/g	% w/w	mg/g	
CBC	<LOQ	<LOQ	0.05	0.5	ORG-M-071
CBCA	<LOQ	<LOQ	0.33	3.3	ORG-M-071
CBD	0.44	4.4	0.05	0.5	ORG-M-071
CBDA	6.46	64.6	0.05	0.5	ORG-M-071
CBDV	<LOQ	<LOQ	0.05	0.5	ORG-M-071
CBDVA	<LOQ	<LOQ	0.05	0.5	ORG-M-071
CBG	<LOQ	<LOQ	0.05	0.5	ORG-M-071
CBGA	0.16	1.6	0.05	0.5	ORG-M-071
CBL	<LOQ	<LOQ	0.05	0.5	ORG-M-071
CBN	<LOQ	<LOQ	0.05	0.5	ORG-M-071
CBNA	0.09	0.9	0.05	0.5	ORG-M-071
Delta 8-THC	<LOQ	<LOQ	0.05	0.5	ORG-M-071
THC	0.88	8.8	0.05	0.5	ORG-M-071
THCA	3.95	39.5	0.05	0.5	ORG-M-071
THCV	<LOQ	<LOQ	0.05	0.5	ORG-M-071
THCVA	<LOQ	<LOQ	0.05	0.5	ORG-M-071
Total CBD	6.11	61.1	0.05	0.5	ORG-M-071
Total THC	4.34	43.4	0.05	0.5	ORG-M-071

Terpenes Scan	RESULT		LOQ		METHOD REFERENCE
	% w/w	mg/g	% w/w	mg/g	
#Total Terpenes	1.075	10.75	0.005	0.05	ORG-M-072
alpha-Bisabolol	0.052	0.52	0.005	0.05	ORG-M-072
Alpha-Cedrene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
alpha-Humulene	0.017	0.17	0.005	0.05	ORG-M-072
alpha-Phellandrene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
alpha-Pinene	0.065	0.65	0.005	0.05	ORG-M-072
alpha-Terpinene	<LOQ	<LOQ	0.005	0.05	ORG-M-072

LOQ - Limit of Quantification

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CERTIFICATE OF ANALYSIS

PAGE: 2 / 8

CATEGORY: Potency
PO#: 1009-0309

LAB NUMBER: 709382

SAMPLE ID: PJB0000059 LOT0000534A

STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Terpenes Scan	RESULT		LOQ		METHOD REFERENCE
	% w/w	mg/g	% w/w	mg/g	
alpha-Terpeneol	0.014	0.14	0.005	0.05	ORG-M-072
beta-Caryophyllene	0.062	0.62	0.005	0.05	ORG-M-072
beta-Myrcene	0.673	6.73	0.005	0.05	ORG-M-072
beta-Ocimene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
beta-Pinene	0.024	0.24	0.005	0.05	ORG-M-072
Borneol	<LOQ	<LOQ	0.01	0.1	ORG-M-072
Camphene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Camphor	<LOQ	<LOQ	0.015	0.15	ORG-M-072
Caryophyllene oxide	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Cedrol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
cis-Nerolidol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
d-Limonene	0.05	0.5	0.05	0.5	ORG-M-072
delta-3-Carene	<LOQ	<LOQ	0.05	0.5	ORG-M-072
Eucalyptol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Fenchol	0.014	0.14	0.005	0.05	ORG-M-072
Fenchone	<LOQ	<LOQ	0.01	0.1	ORG-M-072
gamma-Terpinene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Geraniol	<LOQ	<LOQ	0.05	0.5	ORG-M-072
Geranyl acetate	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Guaiol	0.056	0.56	0.005	0.05	ORG-M-072
Isoborneol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Isopulegol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Linalool	0.033	0.33	0.005	0.05	ORG-M-072
Menthol	<LOQ	<LOQ	0.05	0.5	ORG-M-072
Nerol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
p-Cymene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Pulegone	<LOQ	<LOQ	0.05	0.5	ORG-M-072
Sabinene	<LOQ	<LOQ	0.005	0.05	ORG-M-072

LOQ - Limit of Quantification

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Haifeng Song, Ph.D., C.Chem.
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PAGE: 3 / 8

CATEGORY: Potency
PO#: 1009-0309
LAB NUMBER: 709382
SAMPLE ID: PJB0000059 LOT0000534A
STRAIN:

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DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
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DATE PRINTED: 2022-03-29

Terpenes Scan	RESULT		LOQ		METHOD REFERENCE
	% w/w	mg/g	% w/w	mg/g	
Sabinene hydrate	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Terpinolene	<LOQ	<LOQ	0.005	0.05	ORG-M-072
trans-Nerolidol	<LOQ	<LOQ	0.005	0.05	ORG-M-072
Valencene	<LOQ	<LOQ	0.005	0.05	ORG-M-072

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CATEGORY: Contamination
PO#: 1009-0309

LAB NUMBER: 709382

SAMPLE ID: PJB0000059 LOT0000534A

STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Regulated Heavy Metals	RESULT	UNIT	LOQ	METHOD REFERENCE
Arsenic (As)	<LOQ	ppm	0.10	USP 233
Cadmium (Cd)	<LOQ	ppm	0.10	USP 233
Lead (Pb)	<LOQ	ppm	0.25	USP 233
Mercury (Hg)	<LOQ	ppm	0.05	USP 233
Aflatoxins	RESULT	UNIT	LOQ	METHOD REFERENCE
Aflatoxin B1	<LOQ	ppb	1	USP 561 (mod)
Aflatoxin B2	<LOQ	ppb	1	USP 561 (mod)
Aflatoxin G1	<LOQ	ppb	1	USP 561 (mod)
Aflatoxin G2	<LOQ	ppb	1	USP 561 (mod)
Total Aflatoxins	<LOQ	ppb	4	USP 561 (mod)
Microbiological Scan	RESULT	UNIT	LOQ	METHOD REFERENCE
Bile-Tolerant Gram Negative Bacteria	<10	CFU/g	10	USP62/EP2.6.13
E. coli	Negative	P-A/g(ml)	1	USP62/EP2.6.13
Pseudomonas aeruginosa	Negative	P-A/g	1	USP62/EP2.6.13
Salmonella spp. for cannabis	Negative	P-A/25.0g	1 CFU	EP2.6.31
Staphylococcus aureus	Negative	P-A/g	1	USP62/EP2.6.13
Total Aerobic Microbial Count	<100	CFU/g	100	USP61/EP2.6.12
Total Yeasts & Moulds	<100	CFU/g	100	USP61/EP2.6.12
Miscellaneous Tests	RESULT	UNIT	LOQ	METHOD REFERENCE
Moisture	10.1	%	0.1	USP 921 (Loss on Drying)
Visual Inspection	RESULT	AMOUNT INSPECTED (g)	METHOD REFERENCE	
Foreign Matter	None Detected	10	USP 561/EP 2.8.2	

LOQ - Limit of Quantification

The results of this report relate to the sample submitted and analyzed.



C22070-92072

Results Authorized By:

Haifeng Song, Ph.D., C.Chem.
Lab Director

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REPORT NO.
C22070-92072

A & L Canada Laboratories Inc.



ACCOUNT NUMBER
02677

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO: CRONOS GROWING COMPANY
609 ROAD 3 E
KINGSVILLE, ON N9Y 2E5

ATTN: Diane Lauzon, Mike Krosiak
Phone: 519-733-0300

hereinafter the "Recipient"

CERTIFICATE OF ANALYSIS

PAGE: 5 / 8

CATEGORY: Pesticides
PO#: 1009-0309
LAB NUMBER: 709382
SAMPLE ID: PJB0000059 LOT0000534A
STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Pesticide Scan	RESULT	UNIT	LOQ	HEALTH CANADA REPORTING LIMIT	METHOD REFERENCE
Abamectin	<LOQ	ppm	0.02	0.1	ORG-M-051
Acephate	<LOQ	ppm	0.02	0.02	ORG-M-051
Acequinocyl	<LOQ	ppm	0.02	0.03	ORG-M-051
Acetamiprid	<LOQ	ppm	0.01	0.1	ORG-M-051
Aldicarb	<LOQ	ppm	0.02	1	ORG-M-051
Allethrin	<LOQ	ppm	0.05	0.2	ORG-M-051
Azadirachtin	<LOQ	ppm	0.1	1	ORG-M-051
Azoxystrobin	<LOQ	ppm	0.01	0.02	ORG-M-051
Benzovindiflupyr	<LOQ	ppm	0.02	0.02	ORG-M-051
Bifenazate	<LOQ	ppm	0.01	0.02	ORG-M-051
Bifenthrin	<LOQ	ppm	0.02	1	ORG-M-051
Boscalid	<LOQ	ppm	0.02	0.02	ORG-M-051
Buprofezin	<LOQ	ppm	0.01	0.02	ORG-M-051
Carbaryl	<LOQ	ppm	0.05	0.05	ORG-M-051
Carbofuran	<LOQ	ppm	0.02	0.02	ORG-M-051
Chlorantraniliprole	<LOQ	ppm	0.01	0.02	ORG-M-051
Chlorphenapyr	<LOQ	ppm	0.02	0.05	ORG-M-051
Chlorpyrifos	<LOQ	ppm	0.02	0.04	ORG-M-051
Clofentezine	<LOQ	ppm	0.02	0.02	ORG-M-051
Clothianidin	<LOQ	ppm	0.05	0.05	ORG-M-051
Coumaphos	<LOQ	ppm	0.02	0.02	ORG-M-051
Cyantraniliprole	<LOQ	ppm	0.02	0.02	ORG-M-051
Cyfluthrin	<LOQ	ppm	0.05	0.2	ORG-M-051
Cypermethrin	<LOQ	ppm	0.05	0.3	ORG-M-051
Cyprodinil	<LOQ	ppm	0.02	0.25	ORG-M-051
Daminozide	<LOQ	ppm	0.05	0.1	ORG-M-051
Deltamethrin	<LOQ	ppm	0.05	0.5	ORG-M-051

LOQ - Limit of Quantification

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C22070-92072

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Phone: 519-733-0300

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CERTIFICATE OF ANALYSIS

PAGE: 6 / 8

CATEGORY: Pesticides
PO#: 1009-0309
LAB NUMBER: 709382
SAMPLE ID: PJB0000059 LOT0000534A
STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Pesticide Scan	RESULT	UNIT	LOQ	HEALTH CANADA REPORTING LIMIT	METHOD REFERENCE
Diazinon	<LOQ	ppm	0.02	0.02	ORG-M-051
Dichlorvos	<LOQ	ppm	0.1	0.1	ORG-M-051
Dimethoate	<LOQ	ppm	0.01	0.02	ORG-M-051
Dimethomorph	<LOQ	ppm	0.02	0.05	ORG-M-051
Dinotefuran	<LOQ	ppm	0.1	0.1	ORG-M-051
Dodemorph	<LOQ	ppm	0.01	0.05	ORG-M-051
Endosulfan sulfate	<LOQ	ppm	0.02	0.05	ORG-M-051
Endosulfan-alpha	<LOQ	ppm	0.02	0.2	ORG-M-051
Endosulfan-beta	<LOQ	ppm	0.05	0.05	ORG-M-051
Ethoprophos	<LOQ	ppm	0.02	0.02	ORG-M-051
Etofenprox	<LOQ	ppm	0.02	0.05	ORG-M-051
Etoxazole	<LOQ	ppm	0.02	0.02	ORG-M-051
Etridiazole	<LOQ	ppm	0.02	0.03	ORG-M-051
Fenoxycarb	<LOQ	ppm	0.02	0.02	ORG-M-051
Fenpyroximate	<LOQ	ppm	0.02	0.02	ORG-M-051
Fensulfothion	<LOQ	ppm	0.02	0.02	ORG-M-051
Fenthion	<LOQ	ppm	0.02	0.02	ORG-M-051
Fenvalerate	<LOQ	ppm	0.1	0.1	ORG-M-051
Fipronil	<LOQ	ppm	0.02	0.06	ORG-M-051
Flonicamid	<LOQ	ppm	0.05	0.05	ORG-M-051
Fludioxonil	<LOQ	ppm	0.02	0.02	ORG-M-051
Fluopyram	<LOQ	ppm	0.01	0.02	ORG-M-051
Hexythiazox	<LOQ	ppm	0.01	0.01	ORG-M-051
Imazalil	<LOQ	ppm	0.05	0.05	ORG-M-051
Imidacloprid	<LOQ	ppm	0.02	0.02	ORG-M-051
Iprodione	<LOQ	ppm	0.5	1	ORG-M-051
Kinoprene	<LOQ	ppm	0.5	0.5	ORG-M-051

LOQ - Limit of Quantification

The results of this report relate to the sample submitted and analyzed.



C22070-92072

Results Authorized By:

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Lab Director

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Phone: 519-733-0300

hereinafter the "Recipient"

CERTIFICATE OF ANALYSIS

PAGE: 7 / 8

CATEGORY: Pesticides
PO#: 1009-0309
LAB NUMBER: 709382
SAMPLE ID: PJB0000059 LOT0000534A
STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Pesticide Scan	RESULT	UNIT	LOQ	HEALTH CANADA REPORTING LIMIT	METHOD REFERENCE
Kresoxim-methyl	<LOQ	ppm	0.02	0.02	ORG-M-051
Malathion	<LOQ	ppm	0.02	0.02	ORG-M-051
Metalaxyl	<LOQ	ppm	0.02	0.02	ORG-M-051
Methiocarb	<LOQ	ppm	0.02	0.02	ORG-M-051
Methomyl	<LOQ	ppm	0.05	0.05	ORG-M-051
Methoprene	<LOQ	ppm	0.1	2	ORG-M-051
Mevinphos	<LOQ	ppm	0.05	0.05	ORG-M-051
MGK-264	<LOQ	ppm	0.02	0.05	ORG-M-051
Myclobutanil	<LOQ	ppm	0.02	0.02	ORG-M-051
Naled	<LOQ	ppm	0.05	0.1	ORG-M-051
Novaluron	<LOQ	ppm	0.02	0.05	ORG-M-051
Oxamyl	<LOQ	ppm	0.1	3	ORG-M-051
Paclobutrazol	<LOQ	ppm	0.02	0.02	ORG-M-051
Parathion-methyl	<LOQ	ppm	0.02	0.05	ORG-M-051
Permethrin	<LOQ	ppm	0.05	0.5	ORG-M-051
Phenothrin	<LOQ	ppm	0.05	0.05	ORG-M-051
Phosmet	<LOQ	ppm	0.02	0.02	ORG-M-051
Piperonyl Butoxide	<LOQ	ppm	0.02	0.2	ORG-M-051
Pirimicarb	<LOQ	ppm	0.02	0.02	ORG-M-051
Prallethrin	<LOQ	ppm	0.05	0.05	ORG-M-051
Propiconazole	<LOQ	ppm	0.02	0.1	ORG-M-051
Propoxur	<LOQ	ppm	0.01	0.02	ORG-M-051
Pyraclostrobin	<LOQ	ppm	0.01	0.02	ORG-M-051
Pyrethrins	<LOQ	ppm	0.05	0.05	ORG-M-051
Pyridaben	<LOQ	ppm	0.02	0.05	ORG-M-051
Quintozene	<LOQ	ppm	0.02	0.02	ORG-M-051
Resmethrin	<LOQ	ppm	0.05	0.1	ORG-M-051

LOQ - Limit of Quantification

The results of this report relate to the sample submitted and analyzed.



C22070-92072

Results Authorized By:

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Lab Director

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C22070-92072

ACCOUNT NUMBER
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A & L Canada Laboratories Inc.

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664



TO: CRONOS GROWING COMPANY
609 ROAD 3 E
KINGSVILLE, ON N9Y 2E5

ATTN: Diane Lauzon, Mike Krosiak
Phone: 519-733-0300

hereinafter the "Recipient"

CERTIFICATE OF ANALYSIS

PAGE: 8 / 8

CATEGORY: Pesticides
PO#: 1009-0309
LAB NUMBER: 709382
SAMPLE ID: PJB0000059 LOT0000534A
STRAIN:

SAMPLE MATRIX: Dried Cannabis
DATE SAMPLED: 2022-03-09
DATE RECEIVED: 2022-03-11
DATE REPORTED: 2022-03-18
DATE PRINTED: 2022-03-29

Pesticide Scan	RESULT	UNIT	LOQ	HEALTH CANADA REPORTING LIMIT	METHOD REFERENCE
Spinetoram	<LOQ	ppm	0.02	0.02	ORG-M-051
Spinosad	<LOQ	ppm	0.02	0.1	ORG-M-051
Spirodiclofen	<LOQ	ppm	0.05	0.25	ORG-M-051
Spiromesifen	<LOQ	ppm	0.1	3	ORG-M-051
Spirotetramat	<LOQ	ppm	0.02	0.02	ORG-M-051
Spiroxamine	<LOQ	ppm	0.02	0.1	ORG-M-051
Tebuconazole	<LOQ	ppm	0.02	0.05	ORG-M-051
Tebufenozide	<LOQ	ppm	0.02	0.02	ORG-M-051
Teflubenzuron	<LOQ	ppm	0.05	0.05	ORG-M-051
Tetrachlorvinphos	<LOQ	ppm	0.02	0.02	ORG-M-051
Tetramethrin	<LOQ	ppm	0.1	0.1	ORG-M-051
Thiacloprid	<LOQ	ppm	0.01	0.02	ORG-M-051
Thiamethoxam	<LOQ	ppm	0.02	0.02	ORG-M-051
Thiophanate-methyl	<LOQ	ppm	0.05	0.05	ORG-M-051
Trifloxystrobin	<LOQ	ppm	0.01	0.02	ORG-M-051

LOQ - Limit of Quantification

The results of this report relate to the sample submitted and analyzed.



C22070-92072

Results Authorized By:

Haifeng Song, Ph.D., C.Chem.
Lab Director

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REPORT NO.
C22074-92050

A & L Canada Laboratories Inc.



ACCOUNT NUMBER
02677

2136 Jetstream Road, London, ON, N5V 3P5 Tel: (519) 457-2575 Fax: (519) 457-2664

TO: CRONOS GROWING COMPANY
609 ROAD 3 E
KINGSVILLE, ON N9Y 2E5

ATTN: Diane Lauzon, Mike Kroslak
Phone: 519-733-0300

hereinafter the "Recipient"

CERTIFICATE OF ANALYSIS

PAGE: 1 / 1

LOQ - Limit of Quantification

The results of this report relate to the sample submitted and analyzed.



C22074-92050

Results Authorized By:

Haifeng Song, Ph.D., C.Chem.
Lab Director

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HIGH NORTH ID:
00206464
Date: 2022-07-14
Certificate: 1657826286



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

Client: Seven Leaf
603 Island Road,
Akwasasne, ON, K6H 5R7
Name: M Maresca
3152612210
m.maresca@sevenleaf.ca
Strain: Strawberry Diesel
Lot: P21067
Matrix: Flower
Sub-matrix: Dried Flower
Sampled: 2022-07-08
Received: 2022-07-12

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			16.297	162.966
Total CBD [(CBDA x 0.877) + CBD]			0.053	0.53
THCA-A	0.0090	0.03	18.03	180.302
CBGA	0.0041	0.03	0.646	6.463
D9-THC	0.0093	0.03	0.484	4.841
CBG	0.0094	0.03	0.077	0.773
CBDA	0.0100	0.03	0.06	0.604
D8-THC	0.0137	0.03	ND	ND
CBC	0.0060	0.03	ND	ND
THCV	0.0093	0.03	ND	ND
CBN	0.0067	0.03	ND	ND
CBD	0.0069	0.03	ND	ND
CBDV	0.0090	0.03	ND	ND
Total of all quantified cannabinoids:			19.298	192.983

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Trans-Caryophyllene	0.0002	0.005	0.358
Farnesene*	0.0009	0.005	0.162
(R)-(+)-Limonene	0.0001	0.005	0.144
Alpha-Humulene	0.0010	0.005	0.141
Beta-Myrcene	0.0003	0.005	0.106
Linalool	0.0003	0.005	0.065
alpha-Bisabolol	0.0003	0.005	0.047
Caryophyllene oxide	0.0008	0.005	0.03
Terpineol*	0.0001	0.005	0.025
(R)-Endo-(+)-Fenchyl	0.0003	0.005	0.024
Beta-Pinene	0.0002	0.005	0.023

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

Authorized by:

Will Zhang, Quality Assurance Specialist

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Alpha-Pinene	0.0003	0.005	0.018
trans-Nerolidol	0.0004	0.005	0.013
Camphene	0.0002	0.005	0.006
Terpinolene	0.0003	0.005	BLQ
Fenchone*	0.0003	0.005	BLQ
Phytol*	0.0013	0.010	ND
(+)-Cedrol	0.0010	0.005	ND
Guaiol	0.0003	0.005	ND
cis-Nerolidol	0.0003	0.005	ND
Valencene	0.0002	0.005	ND
Eugenol	0.0004	0.010	ND
Geranyl acetate	0.0002	0.005	ND
Alpha-Cedrene	0.0002	0.005	ND
Pulegone	0.0002	0.005	ND
Nerol	0.0002	0.005	ND
Geraniol	0.0007	0.005	ND
Citronellol	0.0003	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
Sabinene Hydrate	0.0001	0.005	ND
Ocimene*	0.0004	0.005	ND
Gamma-Terpinene	0.0003	0.005	ND
p-Cymene	0.0003	0.005	ND
Eucalyptol	0.0007	0.005	ND
Alpha-Terpinene	0.0003	0.005	ND
(1S)-3-Carene	0.0007	0.005	ND
Alpha-Phellandrene	0.0002	0.005	ND
Sabinene	0.0013	0.005	ND
Total of all quantified terpenes:			1.162

Moisture Analysis 11.33%

Foreign Matter Analysis None Detected

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

Authorized by:



Will Zhang, Quality Assurance Specialist

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	9	PASS
Bile-Tolerant Gram-Negative		1,000	ND	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	0.05	0.2	0.2	ND	PASS
Cadmium	0.01	0.05	0.3	ND	PASS
Lead	0.02	0.5	0.5	ND	PASS
Mercury	0.01	0.05	0.1	ND	PASS

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

Authorized by:



Will Zhang, Quality Assurance Specialist

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

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

Authorized by:



Will Zhang, Quality Assurance Specialist

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

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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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%), Concentrates (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%)

Method LAB-MTD-039: Determination of 5 Cannabinoids in Cannabis Edibles; Liquid Edibles (LOQ 0.0002%) and Solid Edibles (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

Method LAB-MTD-040: Determination of EP Pesticide Residue in Cannabis Oil by GCMSMS

Method LAB-MTD-041: Determination of EP Pesticide Residues in Cannabis Flower and Related Products by GCMSMS

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

Information is accurate unless otherwise stated. The results of this report are reflective only to material and product analyzed as received. This report shall not be reproduced, without written approval from High North Laboratories. Test Results are confidential unless explicitly waived otherwise.

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Details of Testing

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)

Method MIC-MTD-006: Determination of Viruses in Cannabis via qPCR and ELISA

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_w)

Foreign Matter Analysis

Visual/Magnified Inspection for Foreign Matter

Method LAB-MTD-022

Total Ash Analysis

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

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HIGH NORTH ID:
00185448
Date: 2022-05-26
Certificate: 1653602026



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

Client: WILL Cannabis Group
31 Hansen Road South,
Brampton, ON, L6W 3H7
Name: Enrico Mandarino
4164005190
enrico.mandarino@mjardin.com
Strain: Dosi-D
Lot: DD10WI22E241M
Matrix: Flower
Sub-matrix: Dried Flower
Sampled: 2022-05-24
Received: 2022-05-24

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			23.580	235.803
Total CBD [(CBDA x 0.877) + CBD]			0.055	0.546
THCA-A	0.0090	0.03	26.094	260.944
CBGA	0.0041	0.03	1.168	11.684
D9-THC	0.0093	0.03	0.696	6.955
CBG	0.0094	0.03	0.114	1.143
CBDA	0.0100	0.03	0.062	0.623
D8-THC	0.0137	0.03	ND	ND
CBC	0.0060	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:			28.135	281.349

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Beta-Myrcene	0.0003	0.005	1.268
Trans-Caryophyllene	0.0002	0.005	0.316
(R)-(+)-Limonene	0.0001	0.005	0.274
Farnesene*	0.0009	0.005	0.244
alpha-Bisabolol	0.0003	0.005	0.113
Alpha-Humulene	0.0010	0.005	0.109
Linalool	0.0003	0.005	0.092
Guaiol	0.0003	0.005	0.056
Terpineol*	0.0001	0.005	0.036
Beta-Pinene	0.0002	0.005	0.036
(R)-Endo-(+)-Fenchyl	0.0003	0.005	0.024

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%
Caryophyllene oxide	0.0008	0.005	0.021
Alpha-Pinene	0.0003	0.005	0.021
Camphene	0.0002	0.005	0.006
Terpinolene	0.0003	0.005	BLQ
Fenchone*	0.0003	0.005	BLQ
Phytol*	0.0013	0.010	ND
(+)-Cedrol	0.0010	0.005	ND
trans-Nerolidol	0.0004	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
Pulegone	0.0002	0.005	ND
Geranyl acetate	0.0002	0.005	ND
Nerol	0.0002	0.005	ND
Geraniol	0.0007	0.005	ND
Citronellol	0.0003	0.005	ND
Camphor + Borneol*	0.0003	0.010	ND
Hexahydrothymol	0.0005	0.005	ND
Isoborneol	0.0002	0.005	ND
Isopulegol	0.0004	0.005	ND
Gamma-Terpinene	0.0003	0.005	ND
Sabinene Hydrate	0.0001	0.005	ND
Eucalyptol	0.0007	0.005	ND
Ocimene*	0.0004	0.005	ND
p-Cymene	0.0003	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:			2.616

Moisture Analysis 10.99%

Foreign Matter Analysis None Detected

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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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	ND	PASS
Bile-Tolerant Gram-Negative		1,000	ND	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	0.05	0.2	0.2	ND	PASS
Cadmium	0.01	0.05	0.3	ND	PASS
Lead	0.02	0.5	0.5	ND	PASS
Mercury	0.01	0.05	0.1	ND	PASS

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Authorized by:



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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

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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
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Methomyl	0.0093	0.05	0.05	ND	PASS
Methoprene	0.4544	2	2	ND	PASS
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Thiacloprid	0.0014	0.02	0.02	ND	PASS
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Method LAB-MTD-028: Tablets

Determination of Butane and Propane Residual Solvents in Cannabis Oil

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

Information is accurate unless otherwise stated. The results of this report are reflective only to material and product analyzed as received. This report shall not be reproduced, without written approval from High North Laboratories. Test Results are confidential unless explicitly waived otherwise.

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

Authorized by:



Will Zhang, Quality Assurance Specialist

Details of Testing

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)

Method MIC-MTD-006: Determination of Viruses in Cannabis via qPCR and ELISA

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_w)

Foreign Matter Analysis

Visual/Magnified Inspection for Foreign Matter

Method LAB-MTD-022

Total Ash Analysis

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

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Authorized by:



Will Zhang, Quality Assurance Specialist

CERTIFICATE OF ANALYSIS

Client information

MJardin WILL Cannabis
hansen road south
Brampton, Canada, L6W3H7

COA information

COA number **230418_54575_PAR15025**
COA Date **18-Apr-2023**
Analysis Request ID **PAR15025**

Sample information

Sample Name **Dosi-D**
Sample ID **MJ0073**
Laboratory ID **PAT46466**

Sample Receiving Date **13-Apr-2023**
Receiving Temperature **20°C**

Results information

Analysis Date	Test	Method Ref.	Results	Units
17-Apr-2023	Moisture	PAT-AM-023(USP <731>)	11.88	%

Authorized by: Laboratory Manager

Signature:



Details of testing

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Sample information

Sample Name	Dosi-D	Sample Receiving Date	13-Apr-2023
Sample ID	MJ0073	Receiving Temperature	20°C
Laboratory ID	PAT46466	Analysis Date	17-Apr-2023
Method Ref.	PAT-AM-019		

Cannabinoids Profile

Compounds	Results (%w/w)	Results (mg/g)	LOQ(%)
CBC	0.047	0.470	0.010
CBD	<0.010	<0.100	0.010
CBDA	0.070	0.700	0.010
CBDV	0.022	0.220	0.010
CBG	0.131	1.310	0.010
CBGA	0.925	9.250	0.010
CBN	0.077	0.770	0.010
D8-THC	<0.010	<0.100	0.010
D9-THC	4.210	42.100	0.010
THCA-A	24.628	246.280	0.010
THCV	0.052	0.520	0.010
Total THC	25.809	258.088	
Total CBD	0.061	0.614	

25.809%
Total THC

0.061%
Total CBD

Total THC = THC + (THCA*0.877), Total CBD = CBD + (CBDA*0.877)

Total THC/CBD is calculated using the formulas to take into account the loss of carboxyl group during decarboxylation step.

Authorized by: Laboratory Manager

Signature:



Details of testing

1. LOQ- Limit of quantification
2. % w/w: percent (weight of analyte/ weight of product)
3. Results only apply to the items tested and to the sample(s) as received.
4. This report may not be distributed or reproduced except in full



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Sample information

Sample Name	Dosi-D	Sample Receiving Date	13-Apr-2023
Sample ID	MJ0073	Receiving Temperature	20°C
Laboratory ID	PAT46466	Analysis Date	18-Apr-2023
Method Ref.	PAT-AM-022		

Terpenes Profile

Compounds	Results (%w/w)	Results (mg/g)	LOQ(%)
Beta-Myrcene	0.465	4.650	0.001
beta-Caryophyllene	0.236	2.360	0.001
d-Limonene	0.208	2.080	0.001
Linalool	0.140	1.400	0.001
alpha-Humulene	0.089	0.890	0.001
(-)-alpha-Bisabolol	0.053	0.530	0.001
(-)-Guaiol	0.053	0.530	0.001
alpha-Terpineol	0.036	0.360	0.001
1R-endo-Fenchyl-Alcohol	0.035	0.350	0.001
trans-beta-Farnesene	0.030	0.300	0.001
Valencene	0.026	0.260	0.001
Beta-Pinene	0.024	0.240	0.001
Alpha-Pinene	0.020	0.200	0.001
Terpinen-4-ol	0.007	0.070	0.001
Terpinolene	0.006	0.060	0.001
Camphene	0.005	0.050	0.001
Squalene	0.005	0.050	0.001
Farnesol 1	0.004	0.040	0.001
1,8-Cineole (Eucalyptol)	0.003	0.030	0.001
Cedrol	0.003	0.030	0.001
Phytane	0.002	0.020	0.001
(-)-Isopulegol	<0.001	<0.010	0.001
alpha-Cedrene	<0.001	<0.010	0.001
Alpha-Terpinene	<0.001	<0.010	0.001
Borneol	<0.001	<0.010	0.001
Carvacrol	<0.001	<0.010	0.001
cis-beta-Ocimene	<0.001	<0.010	0.001
cis-Nerolidol	<0.001	<0.010	0.001
Citronellol	<0.001	<0.010	0.001
Delta-3-Carene	0.001	0.010	0.001
Farnesol 2	<0.001	<0.010	0.001
gamma-Terpinene	<0.001	<0.010	0.001
Geraniol	<0.001	<0.010	0.001
Isoborneol	<0.001	<0.010	0.001
Menthol	<0.001	<0.010	0.001
m-Isopropyltoluene	<0.001	<0.010	0.001
Nerol	<0.001	<0.010	0.001
o-Isopropyltoluene	<0.001	<0.010	0.001
p-Isopropyltoluene (p-Cymene)	<0.001	<0.010	0.001
Sabinene	<0.001	<0.010	0.001

Compounds	Results (%w/w)	Results (mg/g)	LOQ(%)
Sabinene hydrate	<0.001	<0.010	0.001
Thymol	<0.001	<0.010	0.001
trans-beta-ocimene	<0.001	<0.010	0.001
trans-Nerolidol	<0.001	<0.010	0.001
Total Terpenes	1.451	14.510	

Authorized by: Laboratory Manager

Signature:



Details of testing

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2. % w/w: percent (weight of analyte/ weight of product)
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CERTIFICATE OF ANALYSIS

Client information

MJardin WILL Cannabis
hansen road south
Brampton, Canada, L6W3H7

COA information

COA number **230418_54600_PAR15025**
COA Date **18-Apr-2023**
Analysis Request ID **PAR15025**

Sample information

Sample Name **Dosi-D**
Sample ID **MJ0073**
Laboratory ID **PAT46466**

Sample Receiving Date **13-Apr-2023**
Receiving Temperature **20°C**

Results information

Analysis Date	Test	Method Ref.	Results	Units	Specifications (EP 5.1.8. Microbiology)
18-Apr-2023	Yeast and Mold Count	PAT-AM-002	<100	CFU/g	<50000
18-Apr-2023	Bile-Tolerant Gram Negative Bacteria	PAT-AM-002	<100	CFU/g	<1000
18-Apr-2023	Escherichia coli	PAT-AM-003	Negative	/10g	Negative
18-Apr-2023	Salmonella spp.	PAT-AM-004	Negative	/25g	Negative
18-Apr-2023	Aerobic Microbial Count	PAT-AM-002	<100	CFU/g	<100000

Authorized by: Laboratory Manager

Signature:



Details of testing

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CERTIFICATE OF ANALYSIS

Client information

MJardin WILL Cannabis
hansen road south
Brampton, Canada, L6W3H7

COA information

COA number **230419_54653_PAR15025**
COA Date **19-Apr-2023**
Analysis Request ID **PAR15025**

Sample information

Sample Name **Dosi-D**
Sample ID **MJ0073**
Laboratory ID **PAT46466**
Method Ref. **PAT-AM-024**

Sample Receiving Date **13-Apr-2023**
Receiving Temperature **20°C**
Analysis Date **18-Apr-2023**

Results Information

Aflatoxins	Results	Unit	LOQ
Aflatoxin B1	<0.002	ppm	0.002
Aflatoxin B2	<0.002	ppm	0.002
Aflatoxin G1	<0.002	ppm	0.002
Aflatoxin G2	<0.002	ppm	0.002
Total Aflatoxins (B1,B2,G1,G2)	<0.002	ppm	0.002

Authorized by: Laboratory Manager

Signature:



Details of testing

1. LOQ- Limit of quantification
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Sample information

Sample Name	Dosi-D	Sample Receiving Date	13-Apr-2023
Sample ID	MJ0073	Receiving Temperature	20°C
Laboratory ID	PAT46466	Analysis Date	18-Apr-2023
Method Ref.	PAT-AM-020 (USP 233 Modified)		

Results Information

Heavy Metals	Results	Unit	LOQ	Specification
Arsenic	<0.025	ppm	0.025	< 0.2ppm
Cadmium	<0.020	ppm	0.02	< 0.3ppm
Lead	<0.010	ppm	0.01	< 0.5ppm
Mercury	0.009	ppm	0.005	< 0.1ppm

Authorized by: Laboratory Manager

Signature:



Details of testing

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Sample information

Sample Name	Dosi-D	Sample Receiving Date	13-Apr-2023
Sample ID	MJ0073	Receiving Temperature	20°C
Laboratory ID	PAT46466	Analysis Date	19-Apr-2023
Method Ref.	PAT-AM-026(USP <561>)		

Results Information

Foreign Material	Results	Unit	LOQ
Foreign elements	0	/g	N/A
Foreign organs	0	/g	N/A
Other Foreign elements	0	/g	N/A
Total Foreign matter	0	/g	N/A

Authorized by: Laboratory Manager

Signature: 

Details of testing

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Sample information

Sample Name	Dosi-D	Sample Receiving Date	13-Apr-2023
Sample ID	MJ0073	Receiving Temperature	20°C
Laboratory ID	PAT46466	Analysis Date	18-Apr-2023
Method Ref.	PAT-AM-024		

Pesticides Dried Cannabis Results Information

Compound Detected	Results (ppm)	RDL
No Compounds Detected		

Compounds Not Detected	Results (ppm)	RDL
Abamectin	ND	0.02
Acephate	ND	0.02
Acequinocyl	ND	0.02
Acetamiprid	ND	0.02
Aldicarb	ND	0.02
Allethrin	ND	0.02
Azadirachtin	ND	0.02
Azoxystrobin	ND	0.01
Benzovindiflupyr	ND	0.01
Bifenazate	ND	0.02
Bifenthrin	ND	0.02
Boscalid	ND	0.01
Buprofezin	ND	0.01
Carbaryl	ND	0.02
Carbofuran	ND	0.01
Chlorantraniliprole	ND	0.01
Chlorphenapyr	ND	0.05
Chlorpyrifos	ND	0.01
Clofentezine	ND	0.01
Clothianidin	ND	0.02
Coumaphos	ND	0.01
Cyantraniliprole	ND	0.01
Cyfluthrin	ND	0.1
Cypermethrin	ND	0.02
Cyprodinil	ND	0.02
Daminozide	ND	0.05
Deltamethrin	ND	0.02
Diazinon	ND	0.01
Dichlorvos	ND	0.02
Dimethoate	ND	0.01
Dimethomorph	ND	0.02
Dinotefuran	ND	0.02
Dodemorph	ND	0.02
Endosulfan sulfate	ND	0.02
Endosulfan-alpha	ND	0.1
Endosulfan-beta	ND	0.01
Ethoprophos	ND	0.01
Etofenprox	ND	0.01

Compounds Not Detected	Results (ppm)	RDL
Etoazole	ND	0.01
Etridiazole	ND	0.01
Fenoxycarb	ND	0.01
Fenpyroximate	ND	0.02
Fensulfothion	ND	0.01
Fenthion	ND	0.01
Fenvalerate	ND	0.05
Fipronil	ND	0.01
Flonicamid	ND	0.02
Fludioxonil	ND	0.01
Fluopyram	ND	0.01
Hexythiazox	ND	0.01
Imazalil	ND	0.01
Imidacloprid	ND	0.01
Iprodione	ND	0.5
Kinoprene	ND	0.05
Kresoxim-methyl	ND	0.01
Malathion	ND	0.01
Metalaxyl	ND	0.01
Methiocarb	ND	0.01
Methomyl	ND	0.02
Methoprene	ND	0.5
Mevinphos	ND	0.02
MGK-264	ND	0.02
Myclobutanil	ND	0.01
Naled	ND	0.02
Novaluron	ND	0.02
Oxamyl	ND	0.02
Paclobutrazol	ND	0.01
Parathion-methyl	ND	0.02
Permethrin	ND	0.1
Phenothrin	ND	0.02
Phosmet	ND	0.01
Piperonyl butoxide	ND	0.02
Pirimicarb	ND	0.01
Prallethrin	ND	0.02
Propiconazole	ND	0.01
Propoxur	ND	0.01
Pyraclostrobin	ND	0.01
Pyrethrins	ND	0.025
Pyridaben	ND	0.02
Quintozene	ND	0.01
Resmethrin	ND	0.02
Spinetoram	ND	0.01
Spinosad	ND	0.01
Spirodiclofen	ND	0.02
Spiromesifen	ND	0.02
Spirotetramat	ND	0.02
Spiroxamine	ND	0.01
Tebuconazole	ND	0.01
Tebuconazole	ND	0.01
Tebufenozide	ND	0.01

Compounds Not Detected	Results (ppm)	RDL
Teflubenzuron	ND	0.02
Tetrachlorvinphos	ND	0.01
Tetramethrin	ND	0.02
Thiacloprid	ND	0.01
Thiamethoxam	ND	0.01
Thiophanate-methyl	ND	0.02
Trifloxystrobin	ND	0.01

Authorized by: Laboratory Manager

Signature: 

Details of testing

1. ppm (w/w): parts per million by weight, MRL: Maximum residue limits, RDL: Reporting detection limits
2. The compounds are ND (not detected) at or above the RDL
3. Health Canada and/or United States MRL are taken from Health Canada & Global MRL Database (where applicable) on the date of COA preparation
4. Results only apply to the items tested and to the sample(s) as received.
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