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TEST REPORT

REPORT NO.: 20-06-17045

*Att. Mr. Michael Lynch
HU Botanicals Limited
Aghadreena
Stradone
Co.Cavan.*

<i>Date of Sample:</i>	<i>16-June-2020</i>	<i>Test Report Number:</i>	<i>20-02-17045</i>
<i>Date of Receipt:</i>	<i>17-June-2020</i>	<i>Sample Type:</i>	<i>CBD Hemp Oil Sample.</i>
<i>Date of Report:</i>	<i>23-June-2020</i>	<i>Sample Reference:</i>	<i>Ref. As Dated.</i>
<i>Laboratory Ref. Number:</i>	<i>20-19245</i>	<i>Sample Presentation:</i>	<i>5mls Dispensing Bottle.</i>
		<i>Weight of sample :</i>	<i>4mls Sample</i>

Abbreviations :

% Vol : *percentage volume.*

% wt: *percentage weight.*

mg/L : *milligrams per litre (ppm).*

ppm : *parts per million or mg per litre.*

mg/g: *milligrams per gram.*

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REPORT NO.: 20-06-17045

Cannabinoid Profile Analysis

Parameter	Method of Analysis	CAS Number	Units	Reported Levels
Cannabidiol CBD.	HPLC-PDA	13956-29-1	mg/ml.	42.300
Cannabidiol acid CBD-A	HPLC-PDA	1244-58-2	mg/ml.	2.900
Cannabidivarin CBDV	HPLC-PDA	24274-48-4	mg/ml.	Not Detected
Cannabidivarinic acid CBVD-A	HPLC-PDA	31932-13-5	mg/ml.	Not Detected
Cannabigerol CBG.	HPLC-PDA	25654-31-3	mg/ml.	0.235
Cannabigerolic acid CBG-A	HPLC-PDA	25555-57-1	mg/ml.	0.090
Cannabichromene CBC.	HPLC-PDA	23978-85-0	mg/ml.	Not Detected
Cannabichromenic acid CBC-A	HPLC-PDA	185505-15-1	mg/ml.	1.775
Delta-8-Tetrahydrocannabinol THC.	HPLC-PDA	5957-75-5	mg/ml.	Not Detected
Delta-9-Tetrahydrocannabinol THC.	HPLC-PDA	1972-08-03	mg/ml.	Not Detected
Delta-9-Tetrahydrocannabinolic acid THC-A.	HPLC-PDA	20675-51-8	mg/ml.	Not Detected
Tetrahydrocannabivarin THCV	HPLC-PDA	31262-37-0	mg/ml.	Not Detected
Tetrahydrocannabivarin acid THCV-A	HPLC-PDA	39986-26-0	mg/ml.	Not Detected
Cannabinol CBN	HPLC-PDA	521-35-7	mg/ml.	Not Detected
Cannabinolic acid CBN-A	HPLC-PDA	2808-39-1	mg/ml.	Not Detected
Cannabicyclol CBL	HPLC-PDA	21366-63-2	mg/ml.	Not Detected

Comment:

Result of Delta-9-Tetrahydrocannabinol (THC) and Delta-9-Tetrahydrocannabinolic acid (THC-A) of less than 0.005mg/ml. is based on Limit of Detection (LOD) for the Instrumentation used in this method. This is the smallest concentration of analyte that can be reported and is based on analysis of a minimum of 7 spiked samples and 7 method blank samples.

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Microbiological Analysis

Parameter	Method of Analysis	Method Reference	Units	Reported Levels
Staph. aureus	Pour Plate Count	APHA 9222	CFU/g.	3
Salmonella spp.	Pour Plate Count	APHA 9222	CFU/25g.	< 1
Listeria spp.	Pour Plate Count	APHA 9222	CFU/25g.	< 1
Bacillus cereus	Pour Plate Count	APHA 9222	CFU/g.	< 1
Clostridia spp.	Pour Plate Count	APHA 9222	CFU/g.	< 1
Enterobacteriaceae	Pour Plate Count	APHA 9222	CFU/g.	< 1
Esch. Coli	Pour Plate Count	APHA 9222	CFU/g.	< 1
Yeasts/Molds	Pour Plate Count	APHA 9222	CFU/g.	8

Pesticide Residues Analysis

Parameter	Method of Analysis	Method Reference	Units	Reported Levels
Organochlorine	UHPLC-MS	APHA 6630	µg/gram.	< 0.002
Organophosphorus	UHPLC-MS	APHA 6630	µg/gram.	< 0.002
Organonitrogen	UHPLC-MS	APHA 6630	µg/gram.	< 0.050
Carbamate Pesticides	UHPLC-MS	APHA 6630	µg/gram.	< 0.030
Pyrethroid Residues	UHPLC-MS	APHA 6630	µg/gram.	< 0.001
Organotin	UHPLC-MS	APHA 6630	µg/gram.	< 0.002

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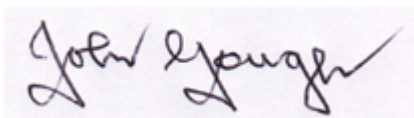
Heavy Metals Analysis

Parameter	Method of Analysis	Method Reference	Units	Reported Levels
Mercury as Hg.	Cold Vapour AAS	EC 1881	µg/gram.	< 0.002
Chromium as Cr.	ICP-OES	EC 1881	µg/gram.	< 0.002
Arsenic as As.	ICP-OES	EC 1881	µg/gram.	< 0.0005
Cadmium as Cd.	ICP-OES	EC 1881	µg/gram.	< 0.003
Nickel as Ni.	ICP-OES	EC 1881	µg/gram.	< 0.002
Lead as Pb.	ICP-OES	EC 1881	µg/gram.	< 0.002

Aflatoxins/Ochratoxins Analysis

Parameter	Method of Analysis	Method Reference	Units	Reported Levels
Ochratoxin	HPLC-PDA	EC 401	µg/gram.	< 0.01
Aflatoxins Scan	HPLC-PDA	EC 401	µg/gram.	< 0.01
B1	HPLC-PDA	EC 401	µg/gram.	< 0.002
B2	HPLC-PDA	EC 401	µg/gram.	< 0.05
G1	HPLC-PDA	EC 401	µg/gram.	< 0.001
G2	HPLC-PDA	EC 401	µg/gram.	< 0.005

J.W. GOUGH



____ Technical Signatory.

Dated : 23rd. June 2020