

Certificate of Analysis



Contact: Absorbent Concepts Inc
Client Name

Anandia Sample ID: 2018120312-001
Sample Name: REx V1.0 (Industrial Hemp)

Phone:
Email:

Sample Type: Other

Sample Received: 03-Dec-18

COA generated: 05-Dec-18

The raw data to generate this certificate of analysis (COA) has been reviewed and supports the results reported in this COA.

These results apply to the sample as received at Anandia Labs.

Authorized By:

John Coleman
President

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Potency

Date of Analysis: 04-Dec-18

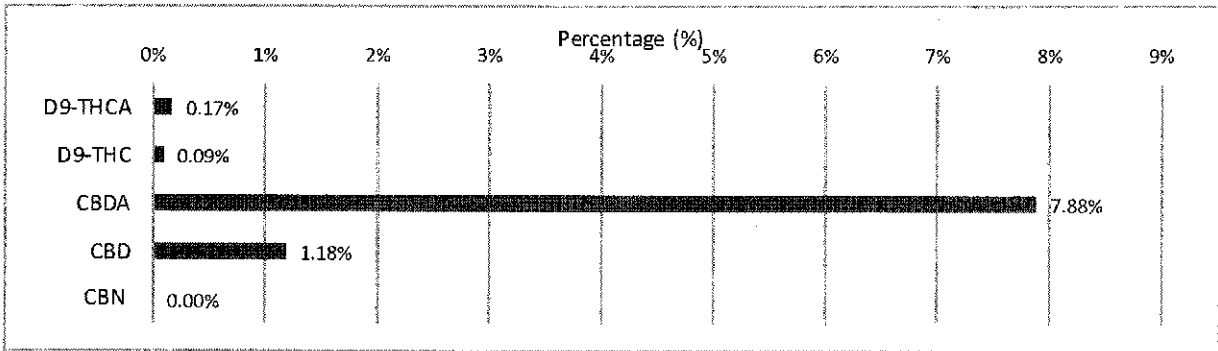
Quantification of THC/A, CBD/A, and CBN by ultra-high-performance liquid chromatography and mass spectrometry detection (UHPLC-MS). LOQ for flower and formulated oils is 0.064% (w/w) and for concentrates is 0.128% (w/w). [STM-4011]

Cannabinoid Summary		wt %
Total THC equivalents	($\Delta 9\text{-THC} + \Delta 9\text{-THCA} \times 0.877$)	0.24%
Total CBD equivalents	($\text{CBD} + \text{CBDA} \times 0.877$)	8.09%

Cannabinoid Profile:		wt %	Std. Curve Passed (Yes/No)	QCs Passed (Yes/No)
$\Delta 9$ -Tetrahydrocannabinolic acid	$\Delta 9\text{-THCA}$	0.17%	Yes	Yes
$\Delta 9$ -Tetrahydrocannabinol	$\Delta 9\text{-THC}$	0.09%	Yes	Yes
Cannabidiolic acid	CBDA	7.88%	Yes	Yes
Cannabidiol	CBD	1.18%	Yes	Yes
Cannabinol	CBN	ND	Yes	Yes

Total Cannabinoid content: 10.01%

(ND = Not Detected, BLQ = Below Limit of Quantification)



*D9 = $\Delta 9$

Notes/Comments

None

Date 22May19 3:50p
Source Cannabis
Type of Sample oil
No. of Samples 1

No. W147457

Comments Arrival temp.: 21.0C
Pd Visa Batch 912

Sample: M1

CANNABINOLS

<u>Compounds</u>	<u>Sample</u>	<u>Lab Blank</u>	<u>S_o</u>	<u>Units</u>	<u>reference recovery(%)</u>
Delta-9 THC	0.385	ND	0.001	%	98.8
Delta-9 THC Acid	2.55	ND	0.001	%	99.7
Delta-8 THC	ND	ND	0.001	%	97.2
Delta-8 THC Acid	ND	ND	0.001		
Cannabichromene (CBC)	0.480	ND	0.001	%	96.2
Cannabichromene-Acid	5.60	ND	0.001	%	98.3
Cannabidiol (CBD)	5.15	ND	0.001	%	98.7
Cannabidiol-Acid	57.0	ND	0.001		98.6
Cannabigerol (CBG)	ND	ND	0.001	%	98.6
Cannabigerol-Acid	1.20	ND	0.001		92.4
Cannabicyclol (CBL)	0.015	ND	0.001	%	99.3
Cannabicyclol-Acid	0.185	ND	0.001	%	98.3
Cannabidivarin (CBDV)	0.120	ND	0.001	%	99.1
Cannabidivarin-Acid	0.375	ND	0.001	%	99.1
Delta-9 THCV	ND	ND	0.001	%	100
Delta-9 THCV Acid	0.050	ND	0.001	%	98.7
Cannabinol (CBN)	ND	ND	0.001	%	93.9
Cannabinolic-Acid (CBNA)	0.040	ND	0.001	%	96.4

Methods: solvent extraction; measured by LC-ESI-MSMS and UPLC-UV.

Pharma. Intern 1.14 & based on USP monograph 29

S_o = standard deviation at zero analyte concentration; method detection limit is generally considered to be 3x S_o value

ND = none detected n/a = not applicable

ug/g = micrograms per gram (ppm), ug/Kg = micrograms per kilogram (ppb)

% = percent (10mg/g = 1.0 %)

9-THC = delta 9-tetrahydrocannabinol, 8-THC = delta 8-tetrahydrocannabinol

Material will be held for up to 3 weeks unless alternative arrangements have been made. Sample holding time may vary and is dependant upon MBL licence restrictions.

R. Bilodeau
Analytical Chemist

H. Hartmann
Sr. Analytical Chemist




Terpene Profile

Compound Name	mg/g	% of Total	Standard Recovery (%)
a-Pinene	0.00	0.00	102
Camphene	0.00	0.00	102
Sabinene	0.00	0.00	102
B-Pinene	0.00	0.00	89.7
Myrcene	0.00	0.00	97.9
a-Phellandrene	0.00	0.00	92.0
3-Carene	0.00	0.00	102
Cymene	0.00	0.00	109
D-Limonene	0.00	0.00	102
Eucalyptol	0.00	0.00	94.0
Ocimene	0.00	0.00	92.0
Sabinene hydrate	0.00	0.00	89.5
Fenchone	0.00	0.00	89.8
Terpinolene	0.00	0.00	102
Linalol	0.00	0.00	103
Fenchol	0.00	0.00	95.3
Camphor	0.00	0.00	99.3
Isopulegol	0.00	0.00	110
Isoborneol	0.17	49.54	89.7
Menthofuran	0.00	0.00	102
Borneol	0.00	0.00	91.7
Menthol	0.00	0.00	92.3
a-Terpineol	0.00	0.00	103
Nerol	0.00	0.00	102
Geraniol	0.00	0.00	105
Nerol acetate	0.00	0.00	95.3
Dihydrojasmone	0.00	0.00	96.0
Cedrene	0.00	0.00	102
Caryophyllene	0.00	0.00	92.0
Humulene	0.00	0.00	105
Valencene	0.00	0.00	102
Caryophyllene oxide	0.00	0.00	102
Guaiol	0.00	0.00	99.7
a-Bisabolol	0.17	50.46	92.0
Total	0.34		

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R. Bilodeau
 Analytical Chemist


 H. Hartmann
 Sr. Analytical Chemist

Date 22May19 3:50p
Source Cannabis
Type of Sample oil
No. of Samples 1

No. W147457 pg2

Comments Arrival temp.: 21.0C
Pd Visa Batch 912

Sample: M1

Solvent Residue

<u>Solvent</u>	<u>Class</u>	<u>Sample</u>	<u>S_o</u>	<u>Units</u>	<u>Acceptance Criteria</u>	<u>Reference Recovery</u>
Benzene	I	ND	0.05	ug/g	2 ppm	102 %
Acetonitrile	II	ND	3.00	ug/g	410 ppm	103 %
Hexane	II	ND	3.00	ug/g	290 ppm	94.1 %
Methanol	II	ND	3.00	ug/g	3000 ppm	104 %
Toluene	II	ND	3.00	ug/g	890 ppm	92.1 %
T. Xylenes	II	ND	3.00	ug/g	2170 ppm	93.2 %
Acetone	III	ND	3.00	ug/g	5000 ppm	101 %
Butane	III	ND	3.00	ug/g	5000 ppm	107 %
Ethanol	III	ND	3.00	ug/g	5000 ppm	93.6 %
Ethyl Acetate	III	ND	3.00	ug/g	5000 ppm	107 %
Ethyl Ether	III	ND	3.00	ug/g	5000 ppm	95.2 %
Heptane	III	ND	3.00	ug/g	5000 ppm	102 %
Isopropanol	III	ND	3.00	ug/g	5000 ppm	96.5 %
Pentanes	III	ND	3.00	ug/g	5000 ppm	107 %

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Ref: Drugs and Health Products, Q3C: Impurities: Guideline for Residual Solvents Health Canada, 1999-12-30

Ref: US Pharmacopeia National Formulary USP 38 NF 33 2015.

ICH Guidelines for Residual Solvents Harmonized 3.3.3 May 2013 v.3

Class I to be avoided

Class II to be limited

Class III limit by GMP-low toxicity potential

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