

Certificate of Analysis Cover Page

Twin Arbor Analytical

3990 Ruth Way Suite D
Paso Robles, CA 93446
(805) 369-2123



PREPARED FOR:

Cannabiva Medical
297 Kingsbury Grade, Suite 1183
Stateline, NV 89449

Report Date
Sample ID
Batch / Lot

4/5/2022
CBD Broad Spectrum Distillate
BRD-43550

Results

Analysis

Cannabinoids

CBD (%) **81.5 %**
Total THC **PASS**

Pesticides and Mycotoxins

Result **PASS**

Residual Solvents

Result **PASS**

Heavy Metals

Result **PASS**

Microbial

Result **PASS**

Terpenes

Page NT

Forrest Richmond
Laboratory Manager

NT = Not Tested

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297 Kingsbury Grade, Suite 1183
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Report Date

4/5/2022

Sample ID

CBD Broad Spectrum Distillate

Batch / Lot

BRD-43550

Internal Sample ID

220317-200-1

Lab Batch ID

220322-2

Date of Analysis

3/22/2022

Analysis: Cannabinoids

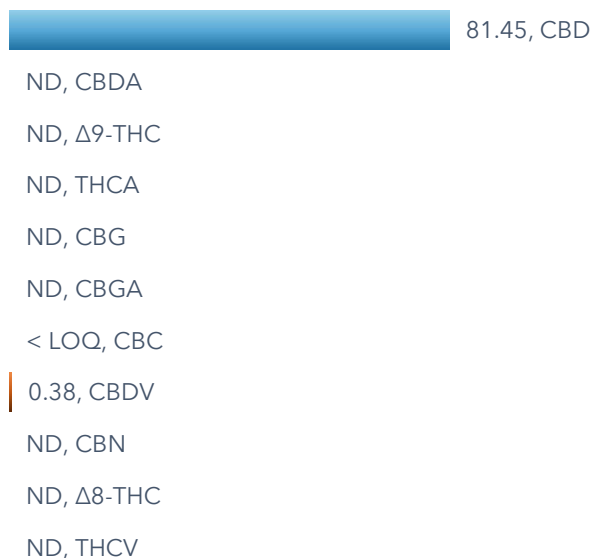
Instrumentation: HPLC/DAD

Instrument ID: HPLC 1

Method: TM0002 (Twin Arbor Analytical Proprietary)

| | LOD / LOQ (mg/g) | mg/g | % by weight |
|----------------------------------|---------------------|--------------|----------------|
| CBD | 1.15 / 3.44 | 814.5 | 81.45 |
| CBDA | 1.07 / 3.2 | ND | ND |
| Total CBD * | | 814.5 | 81.45 |
| Δ9-THC | 1.07 / 3.2 | ND | ND |
| THCA | 1.07 / 3.2 | ND | ND |
| Total THC * | | N/A | N/A |
| CBG | 1.07 / 3.2 | ND | ND |
| CBGA | 1.07 / 3.2 | ND | ND |
| Total CBG * | | N/A | N/A |
| CBC | 1.07 / 3.2 | < LOQ | < LOQ |
| CBDV | 1.07 / 3.2 | 3.8 | 0.38 |
| CBN | 1.07 / 3.2 | ND | ND |
| Δ8-THC | 1.07 / 3.2 | ND | ND |
| THCV | 1.07 / 3.2 | ND | ND |
| Total Tested Cannabinoids | | 818.3 | 81.83 |

% by weight



Moisture Content: **NT**

ND = Not Detected

NT = Not Tested

* Totals account for decarboxylation of the acid and equal $XXX + (XXXA * 0.877)$
For example: Total THC = Δ9-THC + (THCA * 0.877)

Forrest Richmond
Laboratory Manager

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Report Date

4/5/2022

Sample ID

CBD Broad Spectrum Distillate

Batch / Lot

BRD-43550

Internal Sample ID

220317-200-1

Lab Batch ID

220323-1

Date of Analysis

3/25/2022

Analysis: Pesticides and Mycotoxins

Instrumentation: LC-Mass Spectrometer

Intrument ID: LCMS 1

Method: TM0004 (Twin Arbor Analytical Proprietary)

| Mycotoxins | Pass / Fail | Results (µg/g) | Action Limit (µg/g) | LOD / LOQ (µg/g) |
|--------------|-------------|----------------|---------------------|------------------|
| Aflatoxin B1 | Pass | ND | 0.02 | 0.000 / 0.001 |
| Aflatoxin B2 | Pass | ND | 0.02 | 0.001 / 0.004 |
| Aflatoxin G1 | Pass | ND | 0.02 | 0.000 / 0.001 |
| Aflatoxin G2 | Pass | ND | 0.02 | 0.001 / 0.004 |
| Ochratoxin A | Pass | ND | 0.02 | 0.004 / 0.013 |

| Category I | Pass / Fail | Results (µg/g) | Action Limit (µg/g) | LOD / LOQ (µg/g) |
|-------------------|-------------|----------------|---------------------|------------------|
| Aldicarb | Pass | ND | ND | 0.033 / 0.100 |
| Carbofuran | Pass | ND | ND | 0.033 / 0.100 |
| Chlordane | Pass | ND | ND | 0.100 / 0.300 |
| Chlorfenapyr | Pass | ND | ND | 0.033 / 0.100 |
| Chlorpyrifos | Pass | ND | ND | 0.033 / 0.100 |
| Coumaphos | Pass | ND | ND | 0.033 / 0.100 |
| Daminozide | Pass | ND | ND | 0.033 / 0.100 |
| DDVP (Dichlorvos) | Pass | ND | ND | 0.033 / 0.100 |
| Dimethoate | Pass | ND | ND | 0.033 / 0.100 |
| Ethoprop(hos) | Pass | ND | ND | 0.033 / 0.100 |
| Etofenprox | Pass | ND | ND | 0.033 / 0.100 |
| Fenoxycarb | Pass | ND | ND | 0.033 / 0.100 |
| Fipronil | Pass | ND | ND | 0.033 / 0.100 |
| Imazalil | Pass | ND | ND | 0.033 / 0.100 |
| Methiocarb | Pass | ND | ND | 0.033 / 0.100 |
| Methyl parathion | Pass | ND | ND | 0.033 / 0.100 |
| Mevinphos | Pass | ND | ND | 0.017 / 0.050 |
| Paclobutrazol | Pass | ND | ND | 0.033 / 0.100 |
| Propoxur | Pass | ND | ND | 0.033 / 0.100 |
| Spiroxamine | Pass | ND | ND | 0.033 / 0.100 |
| Thiacloprid | Pass | ND | ND | 0.033 / 0.100 |

Continued on page 3

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Analysis: Pesticides and Mycotoxins (continued)

Instrumentation: LC-Mass Spectrometer

Instrument ID: LCMS 1

Method: TM0004 (Twin Arbor Analytical Proprietary)

| Category II | Pass / Fail | Results (µg/g) | Action Limit (µg/g) | LOD / LOQ (µg/g) |
|-------------------------|-------------|----------------|---------------------|------------------|
| Abamectin | Pass | ND | 0.10 | 0.017 / 0.050 |
| Acephate | Pass | ND | 0.10 | 0.017 / 0.050 |
| Acequinocyl | Pass | ND | 0.10 | 0.017 / 0.050 |
| Acetamiprid | Pass | ND | 0.10 | 0.017 / 0.050 |
| Azoxystrobin | Pass | ND | 0.10 | 0.017 / 0.050 |
| Bifenazate | Pass | ND | 0.10 | 0.017 / 0.050 |
| Bifenthrin | Pass | ND | 3.00 | 0.017 / 0.050 |
| Boscalid | Pass | ND | 0.10 | 0.017 / 0.050 |
| Captan | Pass | ND | 0.70 | 0.033 / 0.100 |
| Carbaryl | Pass | ND | 0.50 | 0.017 / 0.050 |
| Chlorantraniliprole | Pass | ND | 10.00 | 0.017 / 0.050 |
| Clofentezine | Pass | ND | 0.10 | 0.017 / 0.050 |
| Cyfluthrin | Pass | ND | 2.00 | 0.033 / 0.100 |
| Cypermethrin | Pass | ND | 1.00 | 0.017 / 0.050 |
| Diazinon | Pass | ND | 0.10 | 0.017 / 0.050 |
| Dimethomorph | Pass | ND | 2.00 | 0.017 / 0.050 |
| Etoxazole | Pass | ND | 0.10 | 0.017 / 0.050 |
| Fenhexamid | Pass | ND | 0.10 | 0.017 / 0.050 |
| Fenpyroximate | Pass | ND | 0.10 | 0.017 / 0.050 |
| Fonicamid | Pass | ND | 0.10 | 0.017 / 0.050 |
| Fludioxonil | Pass | ND | 0.10 | 0.017 / 0.050 |
| Hexythiazox | Pass | ND | 0.10 | 0.017 / 0.050 |
| Imidacloprid | Pass | ND | 5.00 | 0.017 / 0.050 |
| Kresoxim-methyl | Pass | ND | 0.10 | 0.017 / 0.050 |
| Malathion | Pass | ND | 0.50 | 0.017 / 0.050 |
| Metalaxyl | Pass | ND | 2.00 | 0.017 / 0.050 |
| Methomyl | Pass | ND | 1.00 | 0.017 / 0.050 |
| Myclobutanil | Pass | ND | 0.10 | 0.017 / 0.050 |
| Naled | Pass | ND | 0.10 | 0.017 / 0.050 |
| Oxamyl | Pass | ND | 0.50 | 0.017 / 0.050 |
| Pentachloronitrobenzene | Pass | ND | 0.10 | 0.017 / 0.050 |
| Permethrin | Pass | ND | 0.50 | 0.017 / 0.050 |
| Phosmet | Pass | ND | 0.10 | 0.017 / 0.050 |
| Piperonylbutoxide | Pass | ND | 3.00 | 0.017 / 0.050 |
| Prallethrin | Pass | ND | 0.10 | 0.017 / 0.050 |
| Propiconazole | Pass | ND | 0.10 | 0.017 / 0.050 |
| Pyrethrins | Pass | ND | 0.50 | 0.017 / 0.050 |
| Pyridaben | Pass | ND | 0.10 | 0.017 / 0.050 |
| Spinetoram | Pass | ND | 0.10 | 0.017 / 0.050 |
| Spinosad | Pass | ND | 0.10 | 0.017 / 0.050 |
| Spiromesifen | Pass | ND | 0.10 | 0.017 / 0.050 |
| Spirotetramat | Pass | ND | 0.10 | 0.017 / 0.050 |
| Tebuconazole | Pass | ND | 0.10 | 0.017 / 0.050 |
| Thiamethoxam | Pass | ND | 5.00 | 0.017 / 0.050 |
| Trifloxystrobin | Pass | ND | 0.10 | 0.017 / 0.050 |

LOD = Limit of Detection

LOQ = Limit of Quantification

ND = Not Detected

NT = Not Tested



Forrest Richmond
Laboratory Manager

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297 Kingsbury Grade, Suite 1183
Stateline, NV 89449

Report Date

4/5/2022

Sample ID

CBD Broad Spectrum Distillate

Batch / Lot

BRD-43550

Internal Sample ID

220317-200-1

Lab Batch ID

220325-1

Date of Analysis

3/28/2022

Analysis: Residual Solvents

Instrumentation: GC-MS

Instrument ID: GCMS1

Method: TM0006 (Twin Arbor Analytical Proprietary)

| | Pass / Fail | Results (µg/g) | Action Limit (µg/g) | LOQ (µg/g) |
|---|-------------|----------------|---------------------|------------|
| 1,2-Dichloroethane | PASS | < LOQ | 1.0 | 0.41 |
| Benzene | PASS | < LOQ | 1.0 | 0.42 |
| Chloroform | PASS | < LOQ | 1.0 | 0.41 |
| Ethylene oxide | PASS | < LOQ | 1.0 | 0.42 |
| Methylene chloride | PASS | < LOQ | 1.0 | 0.4 |
| Trichloroethylene | PASS | < LOQ | 1.0 | 0.43 |
| Acetone | PASS | < LOQ | 5000 | 59.2 |
| Acetonitrile | PASS | < LOQ | 410 | 60.92 |
| Butane | PASS | < LOQ | 5000 | 39.64 |
| Ethanol | PASS | < LOQ | 5000 | 59.54 |
| Ethyl acetate | PASS | < LOQ | 5000 | 59.96 |
| Ethyl ether | PASS | < LOQ | 5000 | 59.1 |
| Heptane | PASS | < LOQ | 5000 | 59.24 |
| Hexane | PASS | < LOQ | 290 | 59.28 |
| Isopropyl alcohol | PASS | < LOQ | 5000 | 59.3 |
| Methanol | PASS | < LOQ | 3000 | 59.3 |
| Pentane | PASS | < LOQ | 5000 | 59.56 |
| Propane | PASS | < LOQ | 5000 | 40 |
| Toluene | PASS | < LOQ | 890 | 59.3 |
| Total xylenes (ortho-, meta-, para-) | PASS | < LOQ | 2170 | 59.2 |



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Laboratory Manager

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Stateline, NV 89449

Report Date

4/5/2022

Sample ID

CBD Broad Spectrum Distillate

Batch / Lot

BRD-43550

Internal Sample ID

220317-200-1

Lab Batch ID

220328-2

Date of Analysis

3/28/2022

Analysis: Heavy Metals

Instrumentation: ICP-MS

Intrument ID: ICPMS1

Method: TM0005 (Twin Arbor Analytical Proprietary)

| | Pass / Fail | Results ($\mu\text{g/g}$) | Action Limit ($\mu\text{g/g}$) | LOQ ($\mu\text{g/g}$) |
|---------|-------------|--------------------------------|-------------------------------------|----------------------------|
| Arsenic | PASS | < LOQ | 0.2 | 0.013 |
| Cadmium | PASS | < LOQ | 0.2 | 0.013 |
| Lead | PASS | < LOQ | 0.5 | 0.013 |
| Mercury | PASS | < LOQ | 0.1 | 0.013 |



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LOQ = Limit of Quantification

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297 Kingsbury Grade, Suite 1183
Stateline, NV 89449

Report Date 4/5/2022
Sample ID CBD Broad Spectrum Distillate
Batch / Lot BRD-43550
Internal Sample ID 220317-200-1
Lab Batch ID 220323-1 STEC
Lab Batch ID 220323-2 Salmonella
Date of Analysis 3/23/2022

Analysis: Microbial Impurities

Instrumentation: qPCR Instrument ID: qPCR2 Method: AOAC-RI 091301 (STEC) AOAC 081201 (Salmonella)

| | Action Limit | Pass / Fail |
|----------------------------------|--------------|-------------|
| STEC (Shiga-toxicogenic E. coli) | ND | PASS |
| Salmonella sp. | ND | PASS |
| Pathogenic Aspergillus | ND | NT |

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