



Product Development (R&D)

Report Published: 06/15/2022

Client Name: Brave Horse

Address: 246 W 650 North La Porte, IN
46350

Phone: (312) 296-7900

Certificate Number: 4846

License Number: N/A

Sample Description: Bo's OatBites

Batch ID: None

Sample ID: 19-2205-36 **Sampling Method:** SOP-SMPL-002

Sample Type: Horse Treats **Sampling Date:** 05/12/2022



Results Summary

Potency

 **TESTED**

Date Analyzed: 05/13/2022

Method Used:
SOP_CANN_001

Potency
 **TESTED**
Date Analyzed: 05/13/2022
Instrument: Agilent 1260 HPLC

Date Completed: 05/13/2022
Lab Tech: Landen Nickel

Moisture Content (%): 0
Unit Size (g): 2.9

Cannabinoid	Result (%)	Result (mg/g)	Result (mg/unit)	Result (mg/package)	LOD (%)	LOQ (%)	Relative Abundance
CBDVA	ND	ND	ND	ND	0.0050	0.0100	
CBDV	ND	ND	ND	ND	0.0050	0.0100	
CBDA	ND	ND	ND	ND	0.0050	0.0100	
CBD	2.166	21.658	62.807	62.807	0.0050	0.0100	<div style="width: 100%; height: 10px; background-color: green;"></div>
THCVA	ND	ND	ND	ND	0.0050	0.0100	
THCV	ND	ND	ND	ND	0.0050	0.0100	
THCA	ND	ND	ND	ND	0.0050	0.0100	
Δ9 THC	0.012	0.124	0.359	0.359	0.0050	0.0100	<div style="width: 10%; height: 10px; background-color: green;"></div>
Δ8 THC	ND	ND	ND	ND	0.0050	0.0100	
CBN	ND	ND	ND	ND	0.0050	0.0100	
CBCA	ND	ND	ND	ND	0.0050	0.0100	
CBC	ND	ND	ND	ND	0.0050	0.0100	
CBGA	ND	ND	ND	ND	0.0050	0.0100	
CBG	ND	ND	ND	ND	0.0050	0.0100	
Total THC	0.012	0.124	0.359	0.359			
Total CBD	2.166	21.658	62.807	62.807			
Total Cannabinoids	2.178	21.781	63.166	63.166			

Total THC % = (THC% + (THCA% x 0.877)) / (1 - (THCA% + CBDA% + CBGA%) x 0.123)

Total CBD % = (CBD% + (CBDA% x 0.877)) / (1 - (THCA% + CBDA% + CBGA%) x 0.123)

Total Cannabinoids = Sum of all cannabinoids without THC/CBD corrections.

LOD = Limit of Detection; **LOQ** = Limit of Quantitation; **ND** = Not Detected.

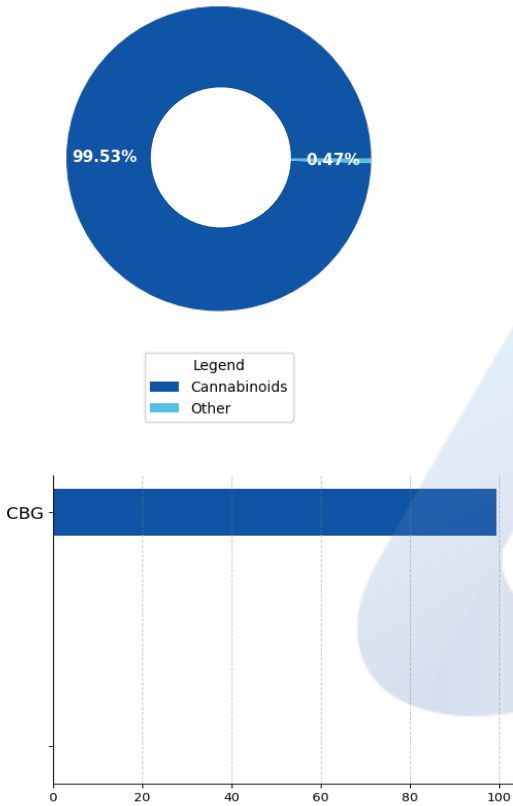
The reported result for each analyte includes a moisture content correction equal to: Base% / (1 - Moisture%)

Relative Abundance represents the percentage of each analyte compared with the total cannabinoid content.

--- END OF REPORT ---

CBG Isolate

Batch ID:	10261_CBG	Received:	07/12/2022	Analysis:	18 Cannabinoid Potency
Sample Type:	Isolate	Analyzed:	07/13/2022	Method:	2021.18P.01
		Test ID:	4368	Equipment:	UHPLC

CANNABINOID PROFILE
TOTAL CANNABINOID CONTENT


Cannabinoid	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
Cannabidiol (CBD)	4.29e-05	1.30e-04	ND	ND
Cannabigerol (CBG)	4.11e-05	1.25e-04	99.53 ± 2.7	995.27
Δ9-Tetrahydrocannabinol (Δ9-THC)	7.72e-05	2.34e-04	ND	ND
Cannabicitran (CBT)	3.95e-05	1.20e-04	ND	ND
Cannabichromene (CBC)	6.99e-05	2.12e-04	ND	ND
Cannabinol (CBN)	3.93e-05	1.19e-04	ND	ND
Cannabicyclol (CBL)	4.58e-05	1.39e-04	ND	ND
Cannabicyclol acid (CBLA)	4.00e-05	1.21e-04	ND	ND
Tetrahydrocannabivarin (THCV)	4.04e-05	1.23e-04	ND	ND
Δ8-Tetrahydrocannabinol (Δ8-THC)	4.73e-05	1.43e-04	ND	ND
Cannabinolic (CBNA)	4.70e-05	1.42e-04	ND	ND
Tetrahydrocannabivarin Acid (THCVA)	3.66e-05	1.11e-04	ND	ND
Cannabigerolic acid (CBGA)	3.98e-05	1.21e-04	ND	ND
Cannabidiolic acid (CBDA)	4.15e-05	1.26e-04	ND	ND
Cannabidivarin (CBDV)	3.97e-05	1.20e-04	ND	ND
Tetrahydrocannabinolic Acid (THCA)	3.86e-05	1.17e-04	ND	ND
Cannabichromenic acid (CBCA)	3.99e-05	1.21e-04	ND	ND
Cannabidivarinic Acid (CBDVA)	3.99e-05	1.21e-04	ND	ND
Total Cannabinoid**			99.53	995.27
Total Potential THC*			ND	ND
Total Potential CBD*			ND	ND
Total Potential CBG*			99.53 ± 2.7	995.27

* Total Potential THC/CBD/CBG is calculated using the following formulas to consider the loss of a carboxyl group during decarboxylation step.

* Total THC = THC + (THCa *(0.877)) and Total CBD = CBD + (CBDA *(0.877)) and Total CBG = CBG + (CBGa*(0.877))

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

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

REMARKS

Passed visual inspection for particulates, mold, mildew, and other foreign substances.

FINAL AUTHORIZATION


 Alex Bujanow, Microbiologist
 07/13/2022 03:54 PM

ANALYZED BY/DATE


 Logan Cline, Director of Analytical Development
 07/13/2022 04:01 PM

AUTHORIZED BY/DATE


 John Reser, Quality Analyst
 07/13/2022 04:03 PM

RELEASED BY/DATE

Laboratory results are based on the sample submitted to Minova Laboratories in the condition it was received. Minova Laboratories warrants that all analyses performed are in accordance with ISO/IEC 17025:2017. All data is generated using NIST traceable reference material and all reports are produced with the highest regard for scientific integrity. Reports can only be reproduced with the written consent of Minova Laboratories.



Certificate of Analysis

Report Published: 05/20/2022

Client Name: Brave Horse

Address: 246 W 650 North La Porte, IN
46350

Phone: (312) 296-7900

Certificate Number: 4849

License Number: N/A

Sample Description: CBD Oil/Isolate

Batch ID: None

Sample ID: 19-2205-39

Sampling Method: SOP-SMPL-002

Sample Type: Oil

Sampling Date: 05/12/2022



Results Summary

Potency

✓ TESTED

Date Analyzed: 05/13/2022

Method Used:
SOP_CANN_001

Pesticides

✓ PASS

Date Analyzed: 05/17/2022

Method Used:
SOP_PEST_001

Mycotoxins

✓ PASS

Date Analyzed: 05/17/2022

Method Used:
SOP_MYCO_001

Heavy Metals

✓ PASS

Date Analyzed: 05/17/2022

Method Used:
SOP_HM_001

Residual Solvents

✓ PASS

Date Analyzed: 05/19/2022

Method Used:
SOP_RS_001

Microbial Impurities

✓ PASS

Date Analyzed: 05/12/2022

Method Used:
SOP_MICRO_001


Potency

 **TESTED**

Date Analyzed: 05/13/2022
Instrument: Agilent 1260 HPLC

Date Completed: 05/13/2022
Lab Tech: Landen Nickel

Moisture Content (%): 0
Unit Size (g): 0.4

Cannabinoid	Result (%)	Result (mg/g)	Result (mg/unit)	Result (mg/package)	LOD (%)	LOQ (%)	Relative Abundance
CBDVA	ND	ND	ND	ND	0.0500	0.1000	
CBDV	ND	ND	ND	ND	0.0500	0.1000	
CBDA	ND	ND	ND	ND	0.0500	0.1000	
CBD	9.819	98.194	39.278	5891.670	0.0500	0.1000	
THCVA	ND	ND	ND	ND	0.0500	0.1000	
THCV	ND	ND	ND	ND	0.0500	0.1000	
THCA	ND	ND	ND	ND	0.0500	0.1000	
Δ9 THC	ND	ND	ND	ND	0.0500	0.1000	
Δ8 THC	ND	ND	ND	ND	0.0500	0.1000	
CBN	ND	ND	ND	ND	0.0500	0.1000	
CBCA	ND	ND	ND	ND	0.0500	0.1000	
CBC	ND	ND	ND	ND	0.0500	0.1000	
CBGA	ND	ND	ND	ND	0.0500	0.1000	
CBG	ND	ND	ND	ND	0.0500	0.1000	
Total THC	ND	ND	ND	ND			
Total CBD	9.819	98.194	39.278	5891.670			
Total Cannabinoids	9.819	98.194	39.278	5891.670			

Total THC % = (THC% + (THCA% x 0.877)) / (1 - (THCA% + CBDA% + CBGA%) x 0.123)

Total CBD % = (CBD% + (CBDA% x 0.877)) / (1 - (THCA% + CBDA% + CBGA%) x 0.123)

Total Cannabinoids = Sum of all cannabinoids without THC/CBD corrections.

LOD = Limit of Detection; **LOQ** = Limit of Quantitation; **ND** = Not Detected.

The reported result for each analyte includes a moisture content correction equal to: Base% / (1 - Moisture%)

Relative Abundance represents the percentage of each analyte compared with the total cannabinoid content.

Pesticides

 **PASS**

Date Analyzed: 05/17/2022
Instrument: Agilent Ultivo LC-MS/MS

Date Completed: 05/19/2022
Lab Tech: Landen Nickel

Pesticide	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status	Pesticide	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status
Acephate	ND	10.0000	50.0000	50	Pass	Fludioxonil	ND	5.0000	5.0000	10	Pass
Acetamiprid	ND	1.0000	5.0000	10	Pass	Hexythiazox	ND	5.0000	5.0000	20	Pass
Aldicarb	ND	5.0000	10.0000	20	Pass	Imidacloprid	ND	1.0000	5.0000	20	Pass
Bifenazate	ND	0.5000	1.0000	20	Pass	Kresoxim Methyl	ND	5.0000	5.0000	10	Pass
Bifenthrin	ND	5.0000	5.0000	50	Pass	Metalaxyl	ND	0.5000	1.0000	20	Pass
Carbaryl	ND	5.0000	5.0000	20	Pass	Oxamyl I	ND	1.0000	5.0000	50	Pass
Carbofuran	ND	0.5000	1.0000	100	Pass	Permethrin	ND	5.0000	10.0000	50	Pass
Chlorantraniliprole	ND	10.0000	20.0000	20	Pass	Phosmet	ND	5.0000	5.0000	40	Pass
Chloromequat Chloride	ND	20.0000	40.0000	40	Pass	Piperonyl-butoxide	ND	0.5000	1.0000	100	Pass
Chlorpyrifos	ND	5.0000	5.0000	10	Pass	Prallethrin	ND	5.0000	10.0000	1000	Pass
Chlofentezine	ND	5.0000	10.0000	10	Pass	Pyridaben	ND	0.5000	1.0000	10	Pass
Coumaphos	ND	5.0000	5.0000	150	Pass	Spinetoram J	ND	0.5000	1.0000	40	Pass
Diazinon	ND	0.5000	1.0000	50	Pass	Spinetoram L	ND	5.0000	10.0000	40	Pass
Dimethomorph I	ND	5.0000	5.0000	50	Pass	Spinosyn A	ND	5.0000	5.0000	10	Pass
Dimethomorph II	ND	1.0000	5.0000	50	Pass	Spinosyn D	ND	5.0000	10.0000	10	Pass
Ethoprophos	ND	1.0000	5.0000	20	Pass	Spiromesifen	ND	0.5000	1.0000	10	Pass
Etofenprox	ND	1.0000	1.0000	10	Pass	Spirotetramat	ND	5.0000	5.0000	10	Pass
Etoxazole	ND	0.5000	1.0000	10	Pass	Spiroxamine	ND	0.5000	1.0000	50	Pass
Fenhexamid	ND	5.0000	10.0000	20	Pass	Tebuconazole	ND	5.0000	5.0000	50	Pass
Fenpyroximate	ND	0.5000	1.0000	15	Pass	Thiacloprid	ND	0.5000	1.0000	20	Pass
Fipronil	ND	5.0000	5.0000	10	Pass	Thiamethoxam	ND	1.0000	5.0000	20	Pass
Fonicamid	ND	1.0000	5.0000	30	Pass	Trifloxystrobin	ND	0.5000	1.0000	10	Pass

Mycotoxins

 **PASS**

Date Analyzed: 05/17/2022
Instrument: Agilent Ultivo LC-MS/MS

Date Completed: 05/19/2022
Lab Tech: Landen Nickel

Mycotoxins	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status
Aflatoxin B1	ND	5.0000	10.0000	20	Pass
Aflatoxin B2	ND	5.0000	10.0000	20	Pass
Aflatoxin G1	ND	5.0000	10.0000	20	Pass
Aflatoxin G2	ND	5.0000	10.0000	20	Pass
Ochratoxin A	ND	10.0000	10.0000	20	Pass

Heavy Metals

 **PASS**

Date Analyzed: 05/17/2022
Instrument: Agilent 7800 ICP-MS

Date Completed: 05/19/2022
Lab Tech: Malcolm Manning

Heavy Metals	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status
Lead	ND	0.7010	83.5000	1000	Pass
Arsenic	ND	2.2540	83.5000	1500	Pass
Cadmium	ND	1.1250	83.5000	500	Pass
Mercury	ND	4.1080	8.3500	3000	Pass
Chromium	ND	6.1460	83.5000	2000	Pass

Residual Solvents

 **PASS**

Date Analyzed: 05/19/2022
Instrument: GC-MS

Date Completed: 05/19/2022
Lab Tech: Landen Nickel

Residual Solvent	Result (ppm)	LOD (ppm)	LOQ (ppm)	Limit (ppm)	Status
Propane	ND	25.0000	450.0000	5000	Pass
Butane	ND	25.0000	450.0000	5000	Pass
Methanol	ND	25.0000	1350.0000	3000	Pass
Ethylene Oxide	ND	7.5000	7.5000	50	Pass
Pentane	ND	25.0000	1050.0000	5000	Pass
Ethanol	ND	25.0000	1050.0000	5000	Pass
Ethyl Ether	ND	25.0000	1050.0000	5000	Pass
Acetone	ND	25.0000	1050.0000	5000	Pass
Petroleum Ether	ND	25.0000	131.0000	400	Pass
Isopropyl Alcohol	ND	25.0000	1050.0000	5000	Pass
Methylene Chloride	ND	270.0000	270.0000	600	Pass
Hexane	ND	25.0000	131.0000	290	Pass
Ethyl Acetate	ND	25.0000	1050.0000	5000	Pass
Heptane	ND	25.0000	1050.0000	5000	Pass
Trichloroethene	ND	36.0000	36.0000	80	Pass
Toluene	ND	25.0000	400.0000	890	Pass
Total Xylenes	ND	25.0000	977.0000	2070	Pass

Microbial Impurities (Quantitative)

 **PASS**

Date Analyzed: 05/12/2022
Instrument: 3M Petrifilm

Date Completed: 05/19/2022
Lab Tech: Malcolm Manning

Microbials (Quantitative)	Result (CFU/g)	Limit (CFU/g)	Status
Total Coliform Count	ND	100	Pass
Total BTGN Count	ND	100	Pass
Total Aerobic Content Count	ND	10000	Pass
Total Yeast and Mold Count	ND	1000	Pass

TNTC = Too numerous to count.

Microbial Impurities (Qualitative)

 **PASS**

Date Analyzed: 05/12/2022
Instrument: 3M Petrifilm

Date Completed: 05/19/2022
Lab Tech: Malcolm Manning

Microbials (Qualitative)	Result	Limit	Status
STEC	Not Detected	Detected	Pass
Salmonella Spp.	Not Detected	Detected	Pass

TNTC = Too numerous to count.

--- END OF REPORT ---



Product Development (R&D)

Report Published: 05/16/2022

Client Name: Brave Horse

Address: 246 W 650 North La Porte, IN
46350

Phone: (312) 296-7900

Certificate Number: 4847

License Number: N/A

Sample Description: Claire's CBD Dog Cookies

Batch ID: None

Sample ID: 19-2205-37

Sampling Method: SOP-SMPL-002

Sample Type: Dog Treats

Sampling Date: 05/12/2022



Results Summary

Potency

 **TESTED**

Date Analyzed: 05/13/2022

Method Used:
SOP_CANN_001

Potency

 **TESTED**

Date Analyzed: 05/13/2022
Instrument: Agilent 1260 HPLC

Date Completed: 05/13/2022
Lab Tech: Landen Nickel

Moisture Content (%): 0
Unit Size (g): 5.5

Cannabinoid	Result (%)	Result (mg/g)	Result (mg/unit)	Result (mg/package)	LOD (%)	LOQ (%)	Relative Abundance
CBDVA	ND	ND	ND	ND	0.0050	0.0100	
CBDV	ND	ND	ND	ND	0.0050	0.0100	
CBDA	ND	ND	ND	ND	0.0050	0.0100	
CBD	0.320	3.197	17.583	17.583	0.0050	0.0100	<div style="width: 100%; height: 10px; background-color: green;"></div>
THCVA	ND	ND	ND	ND	0.0050	0.0100	
THCV	ND	ND	ND	ND	0.0050	0.0100	
THCA	ND	ND	ND	ND	0.0050	0.0100	
Δ9 THC	ND	ND	ND	ND	0.0050	0.0100	
Δ8 THC	ND	ND	ND	ND	0.0050	0.0100	
CBN	ND	ND	ND	ND	0.0050	0.0100	
CBCA	ND	ND	ND	ND	0.0050	0.0100	
CBC	ND	ND	ND	ND	0.0050	0.0100	
CBGA	0.011	0.112	0.615	0.615	0.0050	0.0100	<div style="width: 5%; height: 10px; background-color: green;"></div>
CBG	ND	ND	ND	ND	0.0050	0.0100	
Total THC	ND	ND	ND	ND			
Total CBD	0.320	3.197	17.583	17.583			
Total Cannabinoids	0.331	3.309	18.197	18.197			

Total THC % = (THC% + (THCA% x 0.877)) / (1 - (THCA% + CBDA% + CBGA%) x 0.123)

Total CBD % = (CBD% + (CBDA% x 0.877)) / (1 - (THCA% + CBDA% + CBGA%) x 0.123)

Total Cannabinoids = Sum of all cannabinoids without THC/CBD corrections.

LOD = Limit of Detection; **LOQ** = Limit of Quantitation; **ND** = Not Detected.

The reported result for each analyte includes a moisture content correction equal to: Base% / (1 - Moisture%)

Relative Abundance represents the percentage of each analyte compared with the total cannabinoid content.

--- END OF REPORT ---