Origo Labs
4711 N Lamon Ave.
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(872)-870-0500

Certificate of Analysis

Report Published: 10/18/2021

Client Name: Brave Horse
Address: 246 W 650 North, La Porte, IN 46350
Phone: 312-296-7900
Certificate Number: 2995
License Number: N/A

Sample Description: Brave Horse Oil
Batch ID: None
Sampling Plan: N/A
Sampling Method: SOP_013
Sample ID: 39-2109-32
Sampling Date: 09/29/2021
Sample Type: Oil
Date Received: 09/29/2021
Strain: N/A

Results Summary

Potency	✅ TESTED	
Date Analyzed: 09/29/2021	**Method Used:** SOP_CANN_001	
Pesticides	✅ TESTED	
Date Analyzed: 09/29/2021	**Method Used:** SOP_003	
Mycotoxins	✅ TESTED	
Date Analyzed: 09/29/2021	**Method Used:** SOP_004	
Residual Solvents	✅ TESTED	
Date Analyzed: 10/04/2021	**Method Used:** SOP_017	
Heavy Metals	✅ TESTED	
Date Analyzed: 09/30/2021	**Method Used:** SOP_008	
Foreign Matter	✅ TESTED	
Date Analyzed: 10/08/2021	**Method Used:** SOP_010	
Microbial Impurities	✅ TESTED	
Date Analyzed: 09/29/2021	**Method Used:** SOP_006, SOP_012	

Nicholas Williams, Ph.D. - Lab Director 10/18/2021

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Potency

TESTED

Date Analyzed: 09/29/2021
Instrument: Agilent 1260 Infinity II HPLC

Date Completed: 09/30/2021
Lab Tech: Landen Nickel

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

Cannabinoid	Result (%)	Result (mg/g)	Result (mg/svg)	Result (mg/package)	LOD (%)	LOQ (%)	Relative Abundance
CBDV	ND	ND	ND	ND	0.05	0.1	
CBDA	ND	ND	ND	ND	0.05	0.1	
CBD	12.687	126.870	50.748	3044.880	0.05	0.1	
THCV	ND	ND	ND	ND	0.05	0.1	
THCA	ND	ND	ND	ND	0.05	0.1	
Δ9 THC	ND	ND	ND	ND	0.05	0.1	
Δ8 THC	ND	ND	ND	ND	0.05	0.1	
CBN	ND	ND	ND	ND	0.05	0.1	
CBC	ND	ND	ND	ND	0.05	0.1	
CBGA	ND	ND	ND	ND	0.05	0.1	
CBG	ND	ND	ND	ND	0.05	0.1	
Total THC	**ND**	**ND**	**ND**	**ND**			
Total CBD	**12.687**	**126.870**	**50.748**	**3044.880**			
Total Cannabinoids	**12.687**	**126.870**	**50.748**	**3044.880**			

Total THC = THC + (THCA x 0.877)
Total CBD = CBD + (CBDA x 0.877)
Total Cannabinoids = Sum of all cannabinoids without THC/CBD corrections.
LOD = Limit of Detection; **LOQ** = Limit of Quantitation; **NR** = Not Reported; **ND** = Not Detected.
The reported result is based on a sample weight with the applicable moisture content for that sample.
Relative Abundance represents the percentage of each analyte compared with the total cannabinoid content.

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Pesticides

TESTED

Date Analyzed: 09/29/2021
Instrument: Agilent 1290 Infinity II LC/Ultivo TQMS

Date Completed: 09/30/2021
Lab Tech: Landen Nickel

Pesticide	Result (ppb)	LOD (ppb)	LOQ (ppb)
Acephate	ND	10	50
Acequinocyl	ND	5	10
Acetamiprid	ND	1	5
Aldicarb	ND	5	10
Azoxystrobin	ND	0.5	1
Bifenazate	ND	0.5	1
Bifenthrin	ND	5	5
Boscalid	ND	5	10
Carbaryl	ND	5	5
Carbofuran	ND	0.5	1
Chlorantraniliprole	ND	10	50
Chlorpyrifos	ND	5	5
Chlofentezine	ND	5	10
Coumaphos	ND	5	5
Daminozide	ND	5	50
Diazinon	ND	0.5	1
Dimethomorph I	ND	5	5
Dimethomorph II	ND	1	5
Ethoprophos	ND	1	5
Etofenprox	ND	1	1
Etoxazole	ND	0.5	1
Fenhexamid	ND	5	10
Fenoxycarb	ND	0.5	1
Fenpyroximate	ND	0.5	1
Fipronil	ND	5	5
Flonicamid	ND	1	5

Pesticide	Result (ppb)	LOD (ppb)	LOQ (ppb)
Fludioxonil	ND	5	5
Hexythiazox	ND	5	5
Imazalil	ND	5	5
Imidacloprid	ND	1	5
Kresoxim Methyl	ND	5	5
Metalaxyl	ND	0.5	1
Methiocarb	ND	5	5
Mevinphos	ND	5	10
Oxamyl I	ND	1	5
Paclobutrazol	ND	5	5
Permethrin	ND	5	10
Phosmet	ND	5	5
Piperonyl-butoxide	ND	0.5	1
Prallethrin	ND	5	10
Propiconazole	ND	5	10
Pyridaben	ND	0.5	1
Spinetoram J	ND	0.5	1
Spinetoram L	ND	5	10
Spinosyn A	ND	5	5
Spinosyn D	ND	5	10
Spiromesifen	ND	0.5	1
Spirotetramat	ND	5	5
Spiroxamine	ND	0.5	1
Tebuconazole	ND	5	5
Thiacloprid	ND	0.5	1
Thiamethoxym	ND	1	5
Trifloxystrobin	ND	0.5	1

Mycotoxins

TESTED

Date Analyzed: 09/29/2021
Instrument: Agilent 1290 Infinity II LC/Ultivo TQMS

Date Completed: 09/30/2021
Lab Tech: Landen Nickel

Mycotoxins	Result (ppb)	LOD (ppb)	LOQ (ppb)
Aflatoxin B1	ND	5	10
Aflatoxin B2	ND	5	10
Aflatoxin G1	ND	5	10
Aflatoxin G2	ND	5	10
Ochratoxin A	ND	10	10

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Residual Solvents

TESTED

Date Analyzed: 10/04/2021
Instrument: Agilent 6890/5973 GCMS

Date Completed: 10/05/2021
Lab Tech: Landen Nickel

Residual Solvent	Result (ppm)	LOD (ppm)	LOQ (ppm)
Propane	ND	24.5098	588.235
Butane	ND	24.5098	588.235
Methanol	ND	24.5098	1764.71
Ethylene Oxide	ND	9.80392	9.80392
Pentane	ND	24.5098	1372.55
Ethanol	ND	24.5098	1372.55
Ethyl Ether	ND	24.5098	1372.55
Acetone	ND	24.5098	1372.55
Isopropyl Alcohol	ND	24.5098	1372.55
Petroleum Ether	ND	24.5098	170.588
Methylene Chloride	ND	352.941	352.941
Hexane	ND	24.5098	170.588
Ethyl Acetate	ND	24.5098	1372.55
Heptane	ND	24.5098	2745.1
Trichloroethene	ND	47.0588	47.0588
Toluene	ND	24.5098	523.529
Total Xylenes	ND	24.5098	1276.47

Heavy Metals

TESTED

Date Analyzed: 09/30/2021
Instrument: Agilent 7800 ICP-MS

Date Completed: 10/05/2021
Lab Tech: Christine Stouffer

Heavy Metals	Result (ppb)	LOD (ppb)	LOQ (ppb)
Lead	ND	0.701	83.5
Arsenic	ND	2.254	83.5
Cadmium	ND	1.125	83.5
Mercury	ND	4.108	8.35
Chromium	ND	6.146	83.5

Foreign Matter

TESTED

Date Analyzed: 10/08/2021
Instrument: Euromex bScope Series Microscope

Date Completed: 10/08/2021
Lab Tech: Landen Nickel

Foreign Materials	Result (perc. w/w)
Cinders	ND
Dirt	ND
Insect Fragments	ND
Mold	ND
Other	ND

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Microbial Impurities (Quantitative)

TESTED

Date Analyzed: 09/29/2021
Instrument: 3M Petrifilm

Date Completed: 10/04/2021
Lab Tech: Christine Stouffer

Microbials (Quantitative)	Result (CFU/g)
Total Coliform Count	ND
Total BTGN Count	ND
Total Aerobic Content Count	ND
Total Yeast and Mold Count	ND

TNTC = Too numerous to count.

Microbial Impurities (Qualitative)

TESTED

Date Analyzed: 09/29/2021
Instrument: 3M Petrifilm

Date Completed: 10/04/2021
Lab Tech: Christine Stouffer

Microbials (Qualitative)	Result
STEC	Not Detected
Salmonella Spp.	Not Detected

TNTC = Too numerous to count.

Nicholas Williams, Ph.D. - Lab Director 10/18/2021

EXTRACT LABS
ANALYTICAL SERVICES

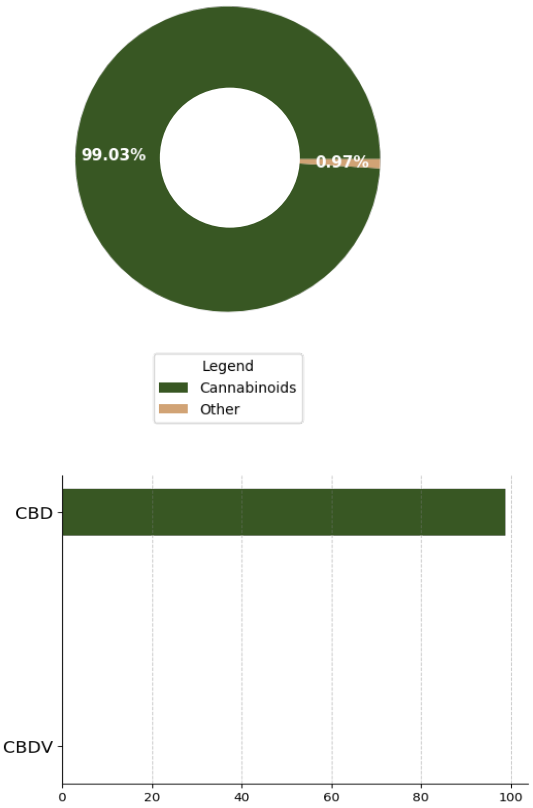
CERTIFICATE OF ANALYSIS

prepared for: Brave Horse LLC
246 W. 650 North
La Porte, IN 46350

Batch ID:	I0148_CBD	**Received:**	10/26/2021	**Analysis:**	18 Cannabinoid Potency
Sample Type:	Isolate	**Analyzed:**	08/27/2021	**Method:**	2021.18P.01
		Test ID:	1741	**Equipment:**	UHPLC

CANNABINOID PROFILE

TOTAL CANNABINOID CONTENT



Cannabinoid	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
Cannabidiol (CBD)	4.29e-05	1.30e-04	98.86 ± 0.00	988.60
Cannabigerol (CBG)	4.11e-05	1.25e-04	ND	ND
Δ9-Tetrahydrocannabinol (Δ9-THC)	7.72e-05	2.34e-04	ND	ND
Cannabacitran (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
Cannabicyclolic 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	0.17 ± 0.00	1.72
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**			99.03	990.32
Total Potential THC*			ND	ND
Total Potential CBD*			98.86 ± 0.00	988.60
Total Potential CBG*			ND	ND

** 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

Brian McCoy, Analytical Chemist 08/27/2021 11:37 AM	Logan Cline, Analytical Development Chemist 08/27/2021 11:56 AM	Madi Smith, Quality Analyst 08/27/2021 12:02 PM
ANALYZED BY/DATE	**AUTHORIZED BY/DATE**	**RELEASED BY/DATE**

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CERT #6019.01

EXTRACT LABS
ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

prepared for: Brave Horse LLC
246 W. 650 North
La Porte, IN 46350

Batch ID:	I0148_CBD	**Received:**	10/26/2021	**Analysis:**	Residual Solvents
Sample Type:	Isolate	**Analyzed:**	08/27/2021	**Method:**	2021.RS.01
		Test ID:	1742	**Equipment:**	GCMS

RESIDUAL SOLVENTS

SOLVENT	REPORTABLE RANGE	RESULT (ppm)
Acetone	100 - 1000	*ND
Acetonitrile	100 - 1000	*ND
Benzene	0.2 - 4	*ND
Butanes	100 - 1000	*ND
Ethanol	100 - 1000	*ND
Ethyl Acetate	100 - 1000	*ND
Heptane	100 - 1000	*ND
Hexanes	6 - 120	*ND
Isopropyl Alcohol	100 - 1000	*ND
Methanol	100 - 1000	*ND
Pentanes	100 - 1000	*ND
Propane	100 - 1000	*ND
Toluene	18 - 360	*ND
Xylenes	43 - 860	*ND

**ND = Below Reportable Range*

REMARKS

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

FINAL AUTHORIZATION

Brian McCoy, Analytical Chemist 08/27/2021 09:03 AM	Logan Cline, Analytical Development Chemist 08/27/2021 09:15 AM	Madi Smith, Quality Analyst 08/27/2021 09:36 AM
ANALYZED BY/DATE	**AUTHORIZED BY/DATE**	**RELEASED BY/DATE**

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