### CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** CBD Tincture - Unflavored

PRODUCT STRENGTH: 450 mg
LOT NUMBER: 20LL041K11

 BEST BY DATE:
 2/27/23

 HEMP EXTRACT LOT NUMBER\*:
 092519.A

### \*Click on the links to view third-party reports\*

Physical Atttributes

Test	Method	Specification	Results
Color	SOP-100	Golden to Amber	PASS
Odor	SOP-100	Characteristic - Olive and hemp, minty	PASS
Appearance	SOP-100	Golden to Amber oil in brown glass bottle with dropper	PASS
Primary Package Eval.	SOP-132	Container clean and free of filth. Container caps tight and shrink baintact	PASS
Secondary Package Eval.	SOP-132	Labeling Compliance Checked, Cartons sturdy and clean. Sufficie cushion material exists. Box taped and secure.	PASS

Review of Third-Party Analysis

Panel	Method	Specification	Results	Pass/Fail
Potency - Total CBD	SOP-111	427.5-562.2 mg CBD LOQ**: 10 PPM† (0.001%)	<u>479.4</u>	PASS
Potency - D9-THC	SOP-111	None Detected LOQ: 10 PPM (0.001%)	<u>ND</u>	PASS
FL Compliant Pesticide Panel	SOP-111	WIP-100008 : Product specification for Tincture, Oregon Action limits apply	ND	PASS
Microbial - Stec E.Coli	SOP-111	Complies with USP 61/62	Below LOD	PASS
Microbial - Salmonella	SOP-111	Complies with USP 61/62	Below LOD	PASS
Microbial - Aspergillus	SOP-111	Complies with USP 61/62	Below LOD	PASS
CA Compliant Heavy Metal Panel	SOP-111	Arsenic (As): ≤1.5 PPM Cadmium (Cd): ≤0.5 PPM Mercury (Hg): ≤1.0 PPM Lead (Pb): ≤0.5 PPM	Below LOQ	PASS

<sup>\*</sup> Level of Quantitation, † Parts Per Million

Quality Certified by:

Darcie Moran

Date

Date

Manager of Quality Assurance



Order #: 47908 Order Name: 450.Mint.041 Batch#: 20LL041K11 Received: 02/03/2022 Completed: 02/04/2022

#### Sample



N/D D9-THC 1.691% Total CBD

490.2 mg Cannabinoids per bottle

479.4 mg CBD per bottle

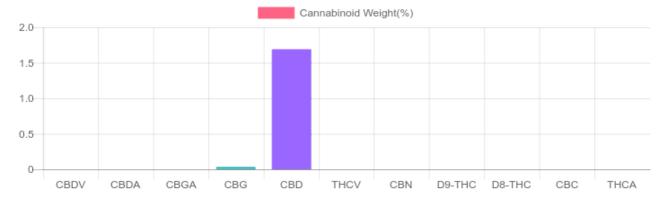
1 bottle = 30 ml per bottle x density (0.945)

x Cannabinoid concentration

#### Cannabinoids Test

SHIMADZU INTEGRATED UPLC-PDA

GSL SOP 400			UPLOADED: 02	2/04/2022 11:37:32
Cannabinoids	LOQ	weight(%)	mg/g	mg/bottle
D9-THC	10 PPM	N/D	N/D	N/D
THCA	10 PPM	N/D	N/D	N/D
CBD	10 PPM	1.691%	16.911	479.4
CBDA	20 PPM	N/D	N/D	N/D
CBDV	20 PPM	N/D	N/D	N/D
CBC	10 PPM	N/D	N/D	N/D
CBN	10 PPM	N/D	N/D	N/D
CBG	10 PPM	0.038%	0.380	10.8
CBGA	20 PPM	N/D	N/D	N/D
D8-THC	10 PPM	N/D	N/D	N/D
THCV	10 PPM	N/D	N/D	N/D
TOTAL D9-THC		N/D	N/D	N/D
TOTAL CBD*		1.691%	16.911	479.4
TOTAL CANNABINOIDS		1.729%	17.291	490.2



Reporting Limit 10 ppm \*Total CBD = CBD + CBDA x 0.877

N/D - Not Detected, B/LOQ - Below Limit of Quantification

Dr. Andrew Hall, Ph.D., Chief Scientific Officer

Ben Witten, MS, MT., Lab Director

**Green Scientific Labs** in fo@greenscient if iclabs.com1-833 TEST CBD















0BM63

0.00 ppm

0.00 ppm <10ppb

phosmet

prallethrin

pyridaben

spiroxamine

thiacloprid

tebuconazole

thiamethoxam

propiconazole

piperonyl butoxide

LOQ

<10ppb

https://portal.a2la.org/scopepdf/4961-01.pdf

#### Sample Handling

test ID sample date 2/18/22 9:48 AM labID **0BM63** order 6598 weiaht

source

Methods	method	equipment
weights	MSP-7.3.1.3	AUX120.1
potency	MSP-7.5.1.5	LC-2030
terpenes	MSP-7.5.1.7	QP2020/HS20
pesticides	MSP-7.5.1.8	LC-8060
mycotoxins	MSP-7.5.1.8	LC-8060
microbial	MSP-7.5.1.9	Hardy Diag
solvents	MSP-7.5.1.6	QP2020/HS20
metals	MSP-7.5.1.10	ICPMS2030

estimated estimated estimated estimated Potency **Terpenes** 

potency not tested

terpenes not tested / not required

Solvents	MT li	mit 0B	M63	LOQ	Pesticides (MT)	MT limit	0BM63	LOQ	Pesticides (other)
					abamectin		0.00 ppm	<10ppb	acephate
					acequinocyl		0.00 ppm	<10ppb	acetamiprid
					bifenazate		0.00 ppm	<10ppb	aldicarb
					bifenthrin		0.00 ppm	<10ppb	azoxystrobin
90	lvents				chlormequat cl.		0.00 ppm	<10ppb	boscalid
					cyfluthrin		0.00 ppm	<80ppb	carbaryl
no	t tested /	not req	uirec	1	diaminozide		0.00 ppm	<10ppb	carbofuran
					etoxazole		0.00 ppm	<10ppb	chloantraniliprole
					fenoxycarb		0.00 ppm	<10ppb	chlorpyrifos
					imazalil		0.00 ppm	<10ppb	clofentezine
					imidacloprid		0.00 ppm	<10ppb	cypermethrin
					myclobutanil		0.00 ppm	<10ppb	diazinon
					paclobutrazol		0.00 ppm	<10ppb	dichlorvos
					pyrethrins		0.00 ppm	<10ppb	dimethoate
					spinosad		0.00 ppm	<10ppb	etofenprox
					spiromesifen		0.00 ppm	<10ppb	fenpyroximate
Toxic Metal	0	0.71400			spirotetramat		0.00 ppm	<10ppb	fipronil
TOXIC IVIELAI	S MT limit	0BM63	LOC	2	trifloxystrobin		0.00 ppm	<10ppb	flonicamid
arsenic	2 ppm	0.0 ppm	<10p	pb					fludioxonil
cadmium	0.8 ppm	0.0 ppm	<10p	pb	Microbial		001400		hexythiazox
lead	1.2 ppm	0.0 ppm	<10p	pb	Microbiai	MT limit	0BM63	LOQ	kresoxym-methyl
mercury	0.4 ppm	0.0 ppm		pb	E. coli	10 CFU	0 CFU	<10 CFU/g	malathion
		• •			Salmonella sp.	10 CFU	0 CFU	<10 CFU/g	metalaxyl
Comments					molds	10000 CFU	0 CFU	<10k CFU/g	methiocarb
					Aflatoxin B1,B2,G1,G2	20 ppb	0 ppb	<20 ppb	methomyl
					Ochratoxin A	20 ppb	0 ppb	<20 ppb	oxamyl
								• •	permethrins
									nhoemet

All testing was completed onsite at 6073 US93N, Olney MT .. Potency (cannabinoid concentration) is calcuated from the equation: [cannabioid] = [cannabinoid]\_{HPLC} x volume\_dilution/Mdry. Terpene concentration is calcuated from the equation: [terpene] = (terpene mass)\_{GCMS} / mdry. ... Decarboxyted cannabinoid concentration is calculated from the equation  $XXX_{total} = 0.877 \times XXXA + XXX$  •••• Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; this is combined with error from weighing and dilution using the propagation of error formula  $s_0^2$  =  $\sum (\partial f/\partial i)^2 s_i^2$  where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration)  $\pm t_{CL90} \times s_g$ . Sampling error is not

Certified by:

Kyle Larson, MSc (Biology) Deputy Director 6073 US93N, Olney MT 59927 406-881-2019 rdb@stwlabs.com

Printed 3/4/2022 3:40 PM



Order #: 37180 Order Name: BSO2.092519.A Batch#: BSO2.092519.A Received: 09/27/2021 Completed: 10/01/2021

#### Sample



N/D D9-THC **76.48%**Total CBD

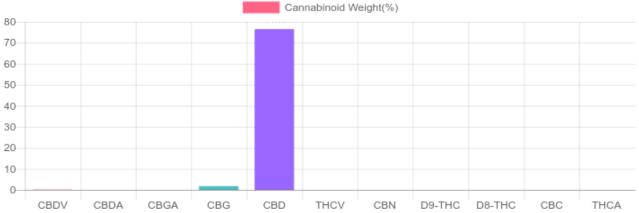
#### **Cannabinoids Test**

CEL COD 400

SHIMADZU INTEGRATED UPLC-PDA

GSL SOP 400	PREPARED: 09/27/202	1 22:34:39 UPLOADEL	<b>):</b> 09/30/2021 12:49:03
Cannabinoids	LOQ	weight(%)	mg/g
D9-THC	10 PPM	N/D	N/D
THCA	10 PPM	N/D	N/D
CBD	10 PPM	76.48%	764.84
CBDA	20 PPM	N/D	N/D
CBDV	20 PPM	0.11%	1.10
CBC	10 PPM	N/D	N/D
CBN	10 PPM	N/D	N/D
CBG	10 PPM	1.79%	17.90
CBGA	20 PPM	N/D	N/D
D8-THC	10 PPM	N/D	N/D
THCV	10 PPM	N/D	N/D
TOTAL D9-THC		N/D	N/D
TOTAL CBD*		76.48%	764.84
TOTAL CANNABINOIDS		78.38%	783.84

DDEDADED: 00/27/2024 22:24:20



Reporting Limit 100 ppm

\*Total CBD = CBD + CBDA x 0.877

N/D - Not Detected, B/LOQ - Below Limit of Quantification



4001 SW 47th Avenue Suite 208 Davie, FL 33314 1-833-TEST-CBD info@greenscientificlabs.com









LIDI OADED: 00/20/2024 12:40:02



Order #: 37180

Order Name: BSO2.092519.A Batch#: BSO2.092519.A Received: 09/27/2021 Completed: 10/01/2021

**TERPENES: TOTAL (0.027%)** 

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

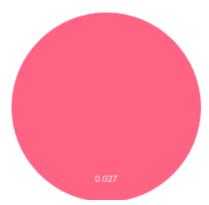
Terpene Results (%) LOQ (%) LOD (%)

GERANIOL 0.027% 0.0067% 0.0063%

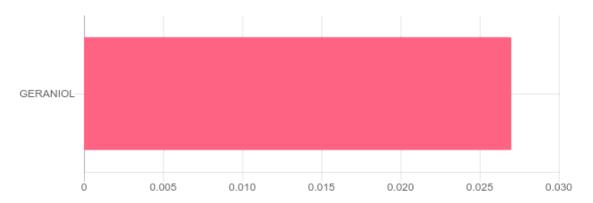
GSL SOP 404

Prepared: 09/27/2021 22:57:12 Uploaded: 09/30/2021 17:51:50

#### **Terpenes Breakdown**



#### **Top Terpenes Results:**



#### Tested for but not present:

ALPHA-PINENE, CAMPHENE, BETA-MYRCENE, BETA-PINENE, 3-CARENE, ALPHA-TERPINENE, TRANS-BETA-OCIMENE, LIMONENE, P-CYMENE, CIS-BETA-OCIMENE, EUCALYPTOL, GAMMA-TERPINENE, TERPINOLENE, LINALOOL, ISOPULEGOL, CARYOPHYLLENE, HUMULENE, CIS-NEROLIDOL, TRANS-NEROLIDOL, GUAIOL, CARYOPHYLLENE OXIDE, ALPHA-BISABOLOL



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Order #: 37180 Order Name: BSO2.092519.A Batch#: BSO2.092519.A Received: 09/27/2021 Completed: 10/01/2021

#### **PESTICIDE ANALYSIS:**

GSL SOP 401 PREPARED: 09/27/2021 22:39:46 UPLOADED: 09/30/2021 20:39:11

LCMS-MS - Shimadzu LCMS-8060

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)	Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ABAMECTIN B1A	0.100	N/D	0.005	0.001	IMAZALIL	0.100	N/D	0.005	0.001
ACEPHATE	0.100	N/D	0.001	0.001	IMIDACLOPRID	5.000	N/D	0.005	0.001
ACEQUINOCYL	0.100	N/D	0.001	0.001	KRESOXIM-METHYL	0.100	N/D	0.010	0.005
ACETAMIPRID	0.100	N/D	0.005	0.001	MALATHION	0.500	N/D	0.005	0.001
ALDICARB	0.100	N/D	0.005	0.001	METALAXYL	2.000	N/D	0.001	0.001
AZOXYSTROBIN	0.100	N/D	0.001	0.001	METHIOCARB	0.100	N/D	0.005	0.001
BIFENAZATE	0.100	N/D	0.005	0.001	METHOMYL	1.000	N/D	0.001	0.001
BIFENTHRIN	3.000	N/D	0.005	0.001	MEVINPHOS	0.100	N/D	0.001	0.001
BOSCALID	0.100	N/D	0.005	0.001	MYCLOBUTANIL	0.100	N/D	0.005	0.001
CARBARYL	0.500	N/D	0.003	0.001	NALED	0.100	N/D	0.005	0.001
CARBOFURAN	0.100	N/D	0.001	0.001	OXAMYL	0.500	N/D	0.001	0.001
CHLORANTRANILIPROLE	10.000	N/D	0.005	0.005	PACLOBUTRAZOL	0.100	N/D	0.005	0.001
CHLORPYRIFOS	0.100	N/D	0.001	0.001	PERMETHRINS	0.500	N/D	0.005	0.001
CLOFENTEZINE	0.100	N/D	0.001	0.001	PHOSMET	0.100	N/D	0.005	0.001
DAMINOZIDE	0.100	N/D	0.005	0.001	PIPERONYL	3.000	N/D	0.001	0.001
DIAZANON	0.100	N/D	0.001	0.001	BUTOXIDE	3.000	IN/D	0.001	0.001
DICHLORVOS	0.100	N/D	0.005	0.001	PRALLETHRIN	0.100	N/D	0.005	0.005
DIMETHOATE	0.100	N/D	0.001	0.001	PROPICONAZOLE	0.100	N/D	0.010	0.005
DIMETHOMORPH	2.000	N/D	0.005	0.001	PROPOXUR	0.100	N/D	0.001	0.001
ETHOPROPHOS	0.100	N/D	0.001	0.001	PYRETHRINS	0.500	N/D	0.005	0.005
ETOFENPROX	0.100	N/D	0.001	0.001	(PYRETHRIN I)	0.500	IN/D	0.005	0.005
ETOXAZOLE	0.100	N/D	0.010	0.005	PYRIDABEN	0.100	N/D	0.005	0.001
FENHEXAMID	0.100	N/D	0.005	0.001	SPINETORAM	0.100	N/D	0.001	0.001
FENOXYCARB	0.100	N/D	0.005	0.001	SPINOSAD	0.100	N/D	0.001	0.001
FENPYROXIMATE	0.100	N/D	0.001	0.001	SPIROMESIFEN	0.100	N/D	0.005	0.001
FIPRONIL	0.100	N/D	0.003	0.001	SPIROTETRAMAT	0.100	N/D	0.001	0.001
FLONICAMID	0.100	N/D	0.025	0.010	SPIROXAMINE	0.100	N/D	0.001	0.001
FLUDIOXONIL	0.100	N/D	0.003	0.001	TEBUCONAZOLE	0.100	N/D	0.005	0.001
HEXYTHIAZOX	0.100	N/D	0.005	0.001	THIACLOPRID	0.100	N/D	0.001	0.001
					THIAMETHOXAM	5.000	N/D	0.001	0.001
					TRIFLOXYSTROBIN	0.100	N/D	0.001	0.001

N/D = Not Detected, A/LOQ = Above LOQ Level, B/LOQ = Below LOQ Level, B/LOD = Below LOD Level



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Order #: 37180 Order Name: BSO2.092519.A Batch#: BSO2.092519.A Received: 09/27/2021 Completed: 10/01/2021

#### **RESIDUAL SOLVENTS:**

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

GSL SOP 405

Prepared: 09/27/2021 22:31:38 Uploaded: 09/30/2021 18:55:54

Residual Solvent	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ACETONE	5,000	N/D	140	20
ACETONITRILE	410	N/D	25	1
BENZENE	1	N/D	1	0.5
BUTANE	5,000	N/D	50	10
CHLOROFORM	1	N/D	1	0.5
DICHLOROETHANE	1	N/D	1	0.5
DICHLOROMETHANE	1	N/D	1	0.5
ETHANOL	5,000	N/D	140	20
ETHYL ACETATE	5,000	N/D	140	20
THYL ETHER	5,000	N/D	140	20
SOPROPYL ALCOHOL	5,000	N/D	140	20
METHANOL	3,000	N/D	100	20
N-HEPTANE	5,000	N/D	140	20
N-HEXANE	290	N/D	18	10
PENTANE	5,000	B/LOQ	140	20
PROPANE	5,000	N/D	20	1
TOLUENE	890	N/D	53	1
RICHLOROETHENE	1	N/D	0	0
YLENES	2,170	N/D	130	20









Accreditation #103104







Order #: 37180 Order Name: BSO2.092519.A Batch#: BSO2.092519.A Received: 09/27/2021 Completed: 10/01/2021

#### **Heavy Metals Analysis:**

ICP-MS - Shimadzu ICPMS-2030

GSL SOP 403

Uploaded: 09/30/2021 21:50:39

Metal	Action Level (ppb)	Result (ppb)
ARSENIC (AS)	200	B/LOQ
CADMIUM (CD)	200	B/LOQ
MERCURY (HG)	100	B/LOQ
LEAD (PB)	500	B/LOQ

Lower Limit of Quantitation (LOQ) is 75 ppb











