

CERTIFICATE OF ANALYSIS

Report Status: RELEASED
Report Date: 06/05/2020

Sante Sample ID: 20A444

Page 1 of 2

Company Name: Lama Herbal Solutions Phone Number: 513-557-8355	Contact Name: Laura McCarthy Contact Email: Lamaherbalsolutions@gmail.com Purchase Order Number: NA
Sample Name: 250 mg Cream Sample Lot Number: 9301 A Sample Received: 06/01/2020	Sample/Product Description: Cram In Glass Jar Sample/Product Type: CBD Isolate Sample Matrix: Topical/Cosmetic

ANALYSIS	TEST METHOD	LOQ	SPECIFICATIONS	RESULTS	PASS/NO PASS								
Cannabinoids Screen													
CBD		0.002 w/w%	w/w%: Report Only mg/g: Report Only	1.6301 mg/g 16.301 mg/g	Results Reported Results Reported								
CBDa		0.002 w/w%	w/w%: Report Only mg/g: Report Only	ND ND	N/A								
□9-ТНС		0.002 w/w%	w/w%: NMT 0.3 mg/g: NMT 3	ND ND	PASS PASS								
THCa	UHPLC-DAD	0.002 w/w%	w/w%: Report Only mg/g: Report Only	ND ND	N/A								
CBGa		0.002 w/w%	w/w%: Report Only mg/g: Report Only	ND ND	N/A								
CBG		0.002 w/w%	w/w%: Report Only mg/g: Report Only	ND ND	N/A								
CBN		0.002 w/w%	w/w%: Report Only mg/g: Report Only	ND ND	N/A								

Product Pictures



TESTING FACILITY INFORMATION	SAMPLE INFORMATION
Sante Laboratories, LLC.	Sante Sample ID: 20A444
Hemp Testing Laboratory	Receipt Date: 06/01/2020 / 12:30 PM / S ORTEGA
8201 East Riverside Drive, Suite 650	Receipt Condition: Good
Austin, Texas 78744 USA	Start Date: 06/02/2020

For any questions related to this Certificate of Analysis please contact Customer Service at 512-800-9117 Released and Prepared by Sante Laboratories, LLC. Reported results refer exclusively to items tested.

THIS CERTIFICATED MAY NOT BE REPRODUCED PARTIALLY WITHOUT WRITTEN PERMISSION BY SANTE LABORATORIES, LLC.

DocuSign Envelope ID: 20C8BC23-1314-4546-B071-AEBB2D56F314



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QUALIT	/ SSURANCE
Signature:	Name: _Brian R. Sloat, Ph.DTitle: _Quality Manager_

ADDITIONAL REPORT NOTES

Test method have been validated to meet regulatory standards. Total Potential THC = $(THCa \times 0.877) + (D9THC) + (D8THC)$. Total Potential CBD = $(CBDa \times 0.877) + (CBD)$. Total Cannabinoids is summation of all tested and detectable cannabinoids. Samples are gravimetrically prepared using qualified balances that are calibrated annually by Mettler-Toledo using NIST-traceable weights. Verification of calibration is performed routinely (e.g. weekly) using NIST-traceable to ensure safe and accurate weighting processes between manufacture performed calibration. Individual balances have been assigned minimum weights taking into consideration the balance and environmental conditions to ensure weighting complies with acceptable tolerances. Cannabinoids for hemp flower and trim is analyzed and reported as received unless requested otherwise. Unless otherwise specified, all QC samples performed within specifications established using validated test methods. Reported results refer exclusive to items tested and have been tested by Sante Laboratories, unless specified otherwise. Test analysis was performed by an ISO/IEC 17025:2017 accredited laboratory.

	VERSION HISTORY								
Version	Effective Date	Summary of Changes							
00	06/05/2020	Initial Release							

LEGE ID KEY								
N/A: Not Applicable	LNCR: Laboratory Non-Conformance Report							
ND: Not Detected NMT: No More Than	RP-UHPLC-DAD: Reverse Phase Ultra High-Performance Liquid Chromatography with Diode Array Detector							
NLT: No Less Than	MS/MS: Mass Spectroscopy (Quadrupole)							
LOD: Limit of Detection	PPM: Parts Per Million							
LOQ: Limit of Quantitation	PPB: Parts Per Billion							
LFIR: Laboratory Failure Investigation Report	DLS: Dynamic Light Scattering							
RT: Retention Time	MG: Milligrams							
RRT: Relative Retention Time	G: Grams							
USP: United States Pharmacopeia	MCG: Micrograms							
ID: Identification	NM: Nanometers							
CV: Coefficient of Variation	PDI: Polydispersity Index							
CFU: Colony Forming Units	ML: Milliliters							
LR: Lot Release	ISO: International Organization for Standardization							



CBD Cream 1oz Airless Pump





SAMPLE ID **149261**

SAMPLE NAME

CBD Cream 1oz Airless Pump

MATRIX Topical

BATCH ID **9301A**

COLLECTED 11/05/2019 11:18

RECEIVED 11/05/2019 11:18

SERVING SIZE

SERVINGS PER PACKAGE

TOTAL CBD

304.2 MG PER SERVING

TOTAL THC ND MG PER SERVING

TOTAL CANNABINOIDS

307.8 MG PER SERVING

Chemical Residue

No Analytes Detected



Chemical Residue GC

No Analytes Detected



Microbial Plating

No Analytes Detected

Heavy Metals

Lead: <LLOQ



Water Activity

aW: 0.9968 aw

Indicates that the hemp product passes some of the strictest testing standards available for cannabis and hemp.





CANNABINOID ANALYSIS

• Total THC,CBD value(s) have been decarboxylated.

TOTAL THC: ND per serving (ND) (ND)

TOTAL CBD: 304.2 mg per serving (10.29 mg/g) (1.029 %) TOTAL CANNABINOIDS: 307.8 mg per serving (10.41 mg/g) (1.041 %)

UNIT OF MEASUREMENT: Milligrams per Gram(mg/g)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
THCa	ND	0.0100	0.0250	CBDv	0.1215 mg/g (0.0122 %)	0.0100	0.0250
D9THC	ND	0.0100	0.0250	CBGa	ND	0.0100	0.0250
D8THC	ND	0.0100	0.0250	CBG	ND	0.0100	0.0250
THCv	ND	0.0100	0.0250	CBN	ND	0.0100	0.0250
CBDa	ND	0.0100	0.0250	CBC	ND	0.0100	0.0250
CBD	10.29 mg/g (1.029 %)	0.0100	0.0250				

ADDITIONAL INFORMATION

 Method:
 SOP-TECH-001
 Sample Prepped
 11/06/2019 14:48
 Sample Approved
 11/07/2019 15:29

 Instrument:
 UPLC-DAD
 Sample Analyzed
 11/06/2019 14:49
 11/06/2019 14:49



CHEMICAL RESIDUE ANALYSIS

UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Abamectin	ND	0.0200	0.0400	0.3000	Acephate	ND	0.0200	0.0400	5.000
Acequinocyl	ND	0.0200	0.0400	4.000	Acetamiprid	ND	0.0200	0.0400	5.000
Aldicarb	ND	0.0200	0.0400	0.0	Azoxystrobin	ND	0.0200	0.0400	40.00
Bifenazate	ND	0.0200	0.0400	5.000	Bifenthrin	ND	0.0200	0.0400	0.5000
Boscalid	ND	0.0200	0.0400	10.00	Carbaryl	ND	0.0200	0.0400	0.5000
Carbofuran	ND	0.0200	0.0400	0.0	Chlorantraniliprole	ND	0.0200	0.0400	40.00
Chlorfenapyr	ND	0.0200	0.0400	0.0	Chlorpyrifos	ND	0.0200	0.0400	0.0
Clofentezine	ND	0.0200	0.0400	0.5000	Coumaphos	ND	0.0200	0.0400	0.0
Cyfluthrin	ND	0.1000	0.2000	1.000	Cypermethrin	ND	0.0400	0.1000	1.000
Daminozide	ND	0.0200	0.0400	0.0	Diazinon	ND	0.0200	0.0400	0.2000
Dichlorvos	ND	0.0200	0.0400	0.0	Dimethoate	ND	0.0200	0.0400	0.0
Dimethomorph	ND	0.0099	0.0198	20.00	Ethoprophos	ND	0.0200	0.0400	0.0
Etofenprox	ND	0.0200	0.0400	0.0	Etoxazole	ND	0.0200	0.0400	1.500
Fenhexamid	ND	0.0200	0.0400	10.00	Fenoxycarb	ND	0.0200	0.0400	0.0
Fenpyroximate	ND	0.0200	0.0400	2.000	Fipronil	ND	0.0200	0.0400	0.0
Flonicamid	ND	0.0200	0.0400	2.000	Fludioxonil	ND	0.0200	0.0400	30.00
Hexythiazox	ND	0.0200	0.0400	2.000	Imazalil	ND	0.0200	0.0400	0.0
Imidacloprid	ND	0.0200	0.0400	3.000	KresoximMethyl	ND	0.0200	0.0400	1.000
Malathion	ND	0.0200	0.0400	5.000	Metalaxyl	ND	0.0200	0.0400	15.00
Methiocarb	ND	0.0200	0.0400	0.0	Methomyl	ND	0.0200	0.0400	0.1000
Mevinphos	ND	0.0200	0.0400	0.0	Myclobutanil	ND	0.0200	0.0400	9.000
Naled	ND	0.0200	0.0400	0.5000	Oxamyl	ND	0.0200	0.0400	0.2000
Paclobutrazol	ND	0.0200	0.0400	0.0	Permethrins	ND	0.0200	0.0400	20.00

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Phosmet	ND	0.0200	0.0400	0.2000	PiperonylButoxide	ND	0.0200	0.0400	8.000
Prallethrin	ND	0.0200	0.0400	0.4000	Propiconazole	ND	0.0200	0.0400	20.00
Propoxur	ND	0.0200	0.0400	0.0	Pyrethrins	ND	0.0178	0.0356	1.000
Pyridaben	ND	0.0200	0.0400	3.000	Spinetoram	ND	0.0200	0.0400	3.000
Spinosad	ND	0.0200	0.0400	3.000	Spiromesifen	ND	0.0200	0.0400	12.00
Spirotetramat	ND	0.0200	0.0400	13.00	Spiroxamine	ND	0.0200	0.0400	0.0
Tebuconazole	ND	0.0200	0.0400	2.000	Thiacloprid	ND	0.0200	0.0400	0.0
Thiamethoxam	ND	0.0200	0.0400	4.500	Trifloxystrobin	ND	0.0200	0.0400	30.00

ADDITIONAL INFORMATION

Method: SOP-TECH-002 Sample Prepped 11/06/2019 12:40 Sample Approved 11/07/2019 13:51 Instrument: LC-MS/MS Sample Analyzed 11/06/2019 12:41



CHEMICAL RESIDUE GC ANALYSIS

UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Captan	ND	0.1000	0.2000	5.000	Chlordane	ND	0.0400	0.1000	0.0
MethylParathion	ND	0.0400	0.1000	0.0	PCNB	ND	0.0200	0.0400	0.2000

ADDITIONAL INFORMATION

SOP-TECH-010 11/06/2019 12:40 Method: 11/07/2019 18:04 Sample Prepped Sample Approved Instrument: GC-MS/MS Sample Analyzed 11/06/2019 12:41



UNIT OF MEASUREMENT: Colony Forming Unit(CFU)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
Coliform	ND	0.0	10.00	E.coli	ND	0.0	10.00
Mold	ND	0.0	10.00	Yeast	ND	0.0	10.00
APC	ND	0.0	10.00				

Sample Analyzed

ADDITIONAL INFORMATION

Sample Prepped 11/06/2019 06:45 SOP-TECH-005, SOP-TECH-006 11/08/2019 13:52 Method: Sample Approved 11/07/2019 07:40

PetriFilm/Incubator Instrument:





HEAVY METALS ANALYSIS

UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Arsenic	ND	0.0200	0.0500	1.500	Cadmium	ND	0.0050	0.0500	0.5000
Lead	<ll00< th=""><th>0.0100</th><th>0.0500</th><th>0.5000</th><th>Mercury</th><th>ND</th><th>0.0030</th><th>0.0500</th><th>3.000</th></ll00<>	0.0100	0.0500	0.5000	Mercury	ND	0.0030	0.0500	3.000

ADDITIONAL INFORMATION

 Method:
 SOP-TECH-013
 Sample Prepped
 11/06/2019 06:46
 Sample Approved
 11/06/2019 18:08

 Instrument:
 ICP-MS
 Sample Analyzed
 11/06/2019 12:26
 11/06/2019 12:26

WATER ACTIVITY ANALYSIS

UNIT OF MEASUREMENT: Water Activity Units(aw)

ANALYTE RESULT LOD LLOQ ACTION LEVEL ANALYTE RESULT LOD LLOQ ACTION LEVEL

AW 0.9968 aw 0.0 0.0 0.8501

ADDITIONAL INFORMATION

 Method:
 SOP-TECH-018
 Sample Prepped
 11/06/2019 14:44
 Sample Approved
 11/06/2019 15:40

 Instrument:
 Water Activity Meter
 Sample Analyzed
 11/06/2019 14:45
 Sample Approved
 11/06/2019 15:40

This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented, or abstracted in any manner. Any violation of these conditions renders the report and its results void.

All LQC samples required by state regulations were performed and met the acceptance criteria.

DATA REVIEWED AND APPROVED BY

Swetha Kaul, PhD

Chief Scientific Officer

Date

11/22/2019