

CERTIFICATE OF ANALYSIS

PRODUCED: OCT 29, 2019

2019_10_05_COO_FL (FLOWER) // CLIENT: WALNUT LLC

BATCH RESULT: **PASS**

BATCH NO.: 2019_10_05_COO_FL
MATRIX: FLOWER
CATEGORY: INHALABLE
SAMPLE ID: BCL-191025-024
COLLECTED ON: OCT 25, 2019
RECEIVED ON: OCT 25, 2019
BATCH SIZE: 4070 GRAMS
SAMPLE SIZE: 15 GRAMS

THCA 25.24 %

CBGA 1.13 %

TOTAL CANNABINOIDS 28.06 %



MOISTURE

MICROBIAL
PASSMYCOTOXINS
PASSPESTICIDES
PASS

TERPENOIDS



CANNABINOIDS

HEAVY METALS
PASSWATER ACTIVITY
PASSFOREIGN
MATERIALS
PASS

CULTIVATOR

WALNUT LLC
3030 WALNUT STE 160
LONG BEACH, CA 90807

LICENSE

CCL19-0000600

TYPE

MEDICINAL - CULTIVATOR LICENSE

DISTRIBUTOR

WALNUT LLC
3030 WALNUT STE 160
LONG BEACH, CA 90807

LICENSE

C11-0001016-LIC

TYPE

ADULT-USE AND MEDICINAL -
DISTRIBUTOR LICENSE

ALL LQC SAMPLES REQUIRED BY SECTION 5730 OF CALIFORNIA CODE OF REGULATIONS TITLE 16 DIVISION 42
BUREAU OF CANNABIS CONTROL WERE PERFORMED AND MET THE ACCEPTANCE CRITERIA.

RESULTS CERTIFIED BY: RON BROOKS, M.S.

SCIENTIFIC DIRECTOR, BELCOSTA LABS

OCT 29, 2019



BCL-03: CANNABINOID POTENCY BY HPLC-UV

OCT 27, 2019

DRY-WEIGHT AMOUNTS SHOWN



ANALYTE	LABELED AMOUNT	DETECTED	DETECTED	LOD	LOQ	PASS/FAIL
CBC		0.02937 %	0.2937 mg/g	0.025 mg/g	0.1 mg/g	N/A
CBCA		0.59413 %	5.9413 mg/g	0.025 mg/g	0.1 mg/g	N/A
CBD		0.17263 %	1.7263 mg/g	0.025 mg/g	0.1 mg/g	N/A
CBDA		0.08402 %	0.8402 mg/g	0.025 mg/g	0.1 mg/g	N/A
CBDV		ND	ND	0.025 mg/g	0.1 mg/g	N/A
CBDVA		ND	ND	0.025 mg/g	0.1 mg/g	N/A
CBG		0.10542 %	1.0542 mg/g	0.025 mg/g	0.1 mg/g	N/A
CBGA		1.12865 %	11.2865 mg/g	0.025 mg/g	0.1 mg/g	N/A
CBN		ND	ND	0.025 mg/g	0.1 mg/g	N/A
Δ^8 -THC		ND	ND	0.025 mg/g	0.1 mg/g	N/A
Δ^9 -THC		0.61088 %	6.1088 mg/g	0.025 mg/g	0.1 mg/g	N/A
THCA		25.23587 %	252.3587 mg/g	0.025 mg/g	0.1 mg/g	N/A
THCV		ND	ND	0.025 mg/g	0.1 mg/g	N/A
THCVA		0.10118 %	1.0118 mg/g	0.025 mg/g	0.1 mg/g	N/A
TOTAL THC (TOTAL THC = (THCA X 0.877) + THC)		22.74274 %	227.4274 mg/g			N/A
TOTAL CBD (TOTAL CBD = (CBDA X 0.877) + CBD)		0.24632 %	2.4632 mg/g			N/A



BCL-09: TERPENOID TESTING BY HS-GC/FID
OCT 27, 2019

ANALYTE	LABELED AMOUNT	DETECTED	DETECTED	PASS/FAIL
TOTAL TERPENES		3.39419 %	33.9419 mg/g	N/A
β -CARYOPHYLLENE		1.42089 %	14.2089 mg/g	N/A
D-LIMONENE		0.63401 %	6.3401 mg/g	N/A
α -HUMULENE		0.47837 %	4.7837 mg/g	N/A
LINALOOL		0.31812 %	3.1812 mg/g	N/A
β -PINENE		0.27432 %	2.7432 mg/g	N/A
β -MYRCENE		0.1289 %	1.289 mg/g	N/A
α -PINENE		0.07025 %	0.7025 mg/g	N/A
α -BISABOLOL		0.06933 %	0.6933 mg/g	N/A
P-CYMENE		ND	ND	N/A
γ -TERPINENE		ND	ND	N/A
CIS-NEROLIDOL		ND	ND	N/A
β -OCIMENE		ND	ND	N/A
1,8-CINEOLE		ND	ND	N/A
α -TERPINENE		ND	ND	N/A
CAMPHERE		ND	ND	N/A
α -OCIMENE		ND	ND	N/A
TERPINOLENE		ND	ND	N/A



ISOPULEGOL	ND	ND	N/A
GUAJOL	ND	ND	N/A
GERANIOL	ND	ND	N/A
Δ^3 -CARENE	ND	ND	N/A
TRANS-NEROLIDOL	ND	ND	N/A

BCL-02: MOISTURE CONTENT BY GRAVIMETRY

OCT 27, 2019



ANALYTE	ACTION LIMIT	DETECTED	PASS/FAIL
MOISTURE		7 %	N/A

BCL-06: MICROBIOLOGICAL ANALYSIS BY QPCR

OCT 28, 2019



ANALYTE	ACTION LIMIT	DETECTED	PASS/FAIL
ASPERGILLUS FLAVUS	Any amount in 1 gram	ND	PASS
ASPERGILLUS FUMIGATUS	Any amount in 1 gram	ND	PASS
ASPERGILLUS NIGER	Any amount in 1 gram	ND	PASS
ASPERGILLUS TERREUS	Any amount in 1 gram	ND	PASS
ESCHERICHIA COLI	Any amount in 1 gram	ND	PASS
SALMONELLA SPP.	Any amount in 1 gram	ND	PASS



BCL-11: MYCOTOXIN TESTING BY LC-MS/MS

OCT 29, 2019

ANALYTE	ACTION LIMIT	DETECTED	LOD	LOQ	PASS/FAIL
AFLATOXIN B1	20 µg/kg	ND	15 µg/kg	20 µg/kg	PASS
AFLATOXIN B2	20 µg/kg	ND	15 µg/kg	20 µg/kg	PASS
AFLATOXIN G1	20 µg/kg	ND	15 µg/kg	20 µg/kg	PASS
AFLATOXIN G2	20 µg/kg	ND	15 µg/kg	20 µg/kg	PASS
AFLATOXINS	20 µg/kg	ND	15 µg/kg	20 µg/kg	PASS
OCHRATOXIN A	20 µg/kg	ND	15 µg/kg	20 µg/kg	PASS

BCL-13: PESTICIDE TESTING BY GC/MS

OCT 29, 2019

ANALYTE	ACTION LIMIT	DETECTED	LOD	LOQ	PASS/FAIL	ANALYTE	ACTION LIMIT	DETECTED	LOD	LOQ	PASS/FAIL
CAPTAN	0.7 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	CYPERMETHRIN	1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
CHLORDANE	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	DICHLORVOS	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
CHLORFENAPYR	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	METHYL PARATHION	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
CHLORPYRIFOS	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	PENTACHLORONI-TROBENZENE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
CYFLUTHRIN	2 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS						



BCL-05: RESIDUAL PESTICIDE ANALYSIS BY LC-MS/MS ESI

OCT 29, 2019

ANALYTE	ACTION LIMIT	DETECTED	LOD	LOQ	PASS/FAIL	ANALYTE	ACTION LIMIT	DETECTED	LOD	LOQ	PASS/FAIL
ABAMECTIN	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	IMIDACLOPRID	5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
ACEPHATE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	KRESOXIM-METHYL	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
ACEQUINOCYL	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	MALATHION	0.5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
ACETAMIPRID	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	METALAXYL	2 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
ALDICARB	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	METHIOCARB	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
AZOXYSTROBIN	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	METHOMYL	1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
BIFENAZATE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	MEVINPHOS	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
BIFENTHRIN	3 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	MYCLOBUTANIL	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
BOSCALID	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	NALED	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
CARBARYL	0.5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	OXAMYL	0.5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
CARBOFURAN	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	PACLOBUTRAZOL	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
CHLORANTRANIL-IPROLE	10 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	PERMETHRIN	0.5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
CLOFENTEZINE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	PHOSMET	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
COUMAPHOS	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	PIPERONYLBUTO-XIDE	3 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
DAMINOZIDE	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	PRALLETHRIN	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
DIAZINON	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	PROPICONAZOLE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
DIMETHOATE	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS	PROPOXUR	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
DIMETHOMORPH	2 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS	PYRETHRINS	0.5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS



ETHOPROPHOS	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
ETOFENPROX	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
ETOXAZOLE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
FENHEXAMID	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
FENOXYCARB	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
FENPYROXIMATE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
FIPRONIL	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
FLONICAMID	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
FLUDIOXONIL	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
HEXYTHIAZOX	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
IMAZALIL	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS

PYRIDABEN	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
SPINETORAM	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
SPINOSAD	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
SPIROMESIFEN	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
SPIROTETRAMAT	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
SPIROXAMINE	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
TEBUCONAZOLE	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
THIACLOPRID	Any amount	ND	0.03 µg/g	0.05 µg/g	PASS
THIAMETHOXAM	5 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS
TRIFLOXYSTROB-IN	0.1 µg/g	ND	0.03 µg/g	0.05 µg/g	PASS

BCL-10: HEAVY METAL TESTING BY ICP-MS

OCT 27, 2019

ANALYTE	ACTION LIMIT	DETECTED	LOD	LOQ	PASS/FAIL
ARSENIC	0.2 µg/g	< LOQ	0.004 µg/g	0.02 µg/g	PASS
CADMIUM	0.2 µg/g	ND	0.004 µg/g	0.02 µg/g	PASS
LEAD	0.5 µg/g	0.022 µg/g	0.004 µg/g	0.02 µg/g	PASS
MERCURY	0.1 µg/g	ND	0.001 µg/g	0.004 µg/g	PASS



BCL-12: WATER ACTIVITY BY HUMIDITY EQUILIBRIUM

OCT 27, 2019



ANALYTE	ACTION LIMIT	DETECTED	PASS/FAIL
WATER ACTIVITY	0.65 Aw	0.47 Aw	PASS

BCL-07: FOREIGN MATERIAL TESTING BY MICROSCOPY

OCT 25, 2019



ANALYTE	ACTION LIMIT	DETECTED	PASS/FAIL
CINDERS	25 %	ND	PASS
DIRT	25 %	ND	PASS
IMBEDDED FOREIGN MATERIAL	25 %	ND	PASS
INSECT FRAGMENTS	1 Unit	ND	PASS
MAMMAL EXCREMENT	1 Unit	ND	PASS
MOLD	25 %	ND	PASS
RODENT HAIR	1 Unit	ND	PASS
SAND	25 %	ND	PASS
SOIL	25 %	ND	PASS

