

May 06, 2019

GARDEN OF LIFE

4200 Northcorp Parkway
Palm Beach Gardens, FL 33410

Order No. 505530
Sample No. 1024068

SAMPLE INFORMATION

Description NV-105980 Hemp EXT W/ extramel
Lot Number W2790894
Category (Type) Other
Received March 26, 2019

ANALYTICAL RESULTS

Analysis Cannabinoid Profile
Instrument Liquid Chromatography Diode Array Detector (LC-DAD)
Method American Herbal Pharmacopoeia
Analysis Date March 26, 2019 to May 06, 2019

Analyte	mg/g	%	mg/ml	Listed Value (mg/g)	% Difference	Status
Total THC	ND	ND	ND	-	-	-
Total CBD	16.45	1.645	15.3587	-	-	-
Label Claims	n/p					
mg/ml Conversion Factor	0.93366					

Reported by
Anresco, Inc.



Eric Tam
Senior Chemist

May 06, 2019

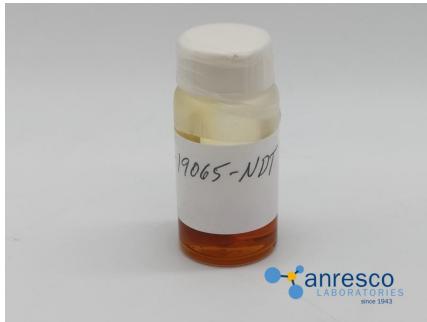
Limit of Quantitation: 1.0 mg/g
 Limit of Detection: 0.4 mg/g
 ND = None Detected
 <LOQ = Below Limit of Quantitation
 <LOD = Below Limit of Detection

ANALYZED BY:

Anresco Laboratories
1375 Van Dyke Avenue,
San Francisco, CA 94124
C8-18-0000020-TEMP

CLIENT:

Garden of Life
4200 Northcorp Parkway
Palm Beach Gardens, FL 33410



SAMPLE INFORMATION

Sample No.: 1023488
Product Name: NDT Whole Plant Hemp CO2 Extract Oil
Matrix: Concentrate
Batch #: PX-19065-NDT

Date Received: 03/18/2019
Date Reported: 04/10/2019

TEST SUMMARY

Cannabinoid Profile:
Microbiological Screen:
Pesticide Residue Screen: ✔ Pass
Mycotoxin Screen: ✔ Pass

Terpenoid Profile:
Residual Solvent Screen: ✔ Pass
Heavy Metal Screen: ✔ Pass
Other Analyses:
Overall: ✔ Pass

CANNABINOID PROFILE

03/21/2019

Method: American Herbal Pharmacopoeia
Instrument: Liquid Chromatography Diode Array Detector (LC-DAD)
Limit of Quantitation: 1.0 mg/g
Limit of Detection: 0.4 mg/g

Analyte	mg/g (dry)	% (dry)	Listed Value (mg/g)	% Difference	Status
88 THC	ND	ND	-	-	-
89 THC	ND	ND	-	-	-
THCV	2.338	0.234	-	-	-
THCVA	ND	ND	-	-	-
THCA	ND	ND	-	-	-
CBD	783.754	78.375	-	-	-
CBDA	1.423	0.142	-	-	-
CBC	2.643	0.264	-	-	-
CBCA	ND	ND	-	-	-
CBDV	3.863	0.386	-	-	-
CBG	ND	ND	-	-	-
CBGA	ND	ND	-	-	-
CBN	ND	ND	-	-	-
Total THC	0	0	-	-	-
Total CBD	785.002	78.500	-	-	-
Total Cannabinoids	794.022	79.402	-	-	-
Total Active Cannabinoids	793.847	79.385	-	-	-

Label Claims: n/p

TERPENOID PROFILE

03/20/2019

Method: American Herbal Pharmacopoeia
Instrument: Gas Chromatography Mass Spectrometry (GC/MS)

Terpene	mg/g	%	Listed Value	% Difference	Status
α-Pinene	0.018	0.0018	-	-	-
Isopulegol	0	ND	-	-	-
Camphene	0	<LOQ	-	-	-
Menthol	0	ND	-	-	-
β-Myrcene	0.242	0.0242	-	-	-
(-)-Borneol	0.037	0.0037	-	-	-
β-Pinene	0.026	0.0026	-	-	-
Terpineol	0.227	0.0227	-	-	-
δ-3-Carene	0	ND	-	-	-
Citronellol	0	ND	-	-	-
Limonene	0.189	0.0189	-	-	-
Geraniol	0	ND	-	-	-
α-Terpinene	0.059	0.0059	-	-	-
β-Caryophyllene	1.884	0.1884	-	-	-
trans-beta-Ocimene	0	<LOQ	-	-	-
α-Humulene	0.238	0.0238	-	-	-
cis-beta-Ocimene	0	ND	-	-	-
cis-Nerolidol	0	ND	-	-	-
p-Cymene	0.038	0.0038	-	-	-

Terpene	mg/g	%	Listed Value	% Difference	Status
trans-Nerolidol	0.032	0.0032	-	-	-
Eucalyptol	0.447	0.0447	-	-	-
Guaiol	5.81	0.5810	-	-	-
γ-Terpinene	0.048	0.0048	-	-	-
Caryophyllene Oxide	0.277	0.0277	-	-	-
Terpinolene	0.015	0.0015	-	-	-
α-Bisabolol	16.288	1.6288	-	-	-
Linalool	0.033	0.0033	-	-	-
Eudesmol	5.664	0.5664	-	-	-
Total Terpenes	31.572	3.1572	-	-	-

MICROBIOLOGICAL SCREEN

03/22/2019

Analysis	Method	Findings	Limit	Status
SPC	FDA BAM	<100	NA	-
Yeast	FDA BAM	<10	NA	-
Mold	FDA BAM	<10	NA	-
Coliforms	FDA BAM - ECC Agar	<10	NA	-
E. coli	FDA BAM - ECC Agar	<10	NA	-

Comments: Salmonella AOAC 2013.01 - Negative/1g
 Staph AOAC 2003.07 - <10 cfu/g

PESTICIDE RESIDUE SCREEN

✓ Pass

03/22/2019

Method: MF 21P030

Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Abamectin	0.04/0.10	ND	0.1	Pass
Acephate	0.04/0.10	ND	0.1	Pass
Acequinocyl	0.04/0.10	ND	0.1	Pass
Acetamiprid	0.04/0.10	ND	0.1	Pass
Aldicarb	0.04/0.10	ND	0.0	Pass
Azoxystrobin	0.04/0.10	ND	0.1	Pass
Bifenazate	0.04/0.10	ND	0.1	Pass
Bifenthrin	0.20/0.50	ND	3.0	Pass
Boscalid	0.04/0.10	ND	0.1	Pass
Captan	0.25/0.70	ND	0.7	Pass
Carbaryl	0.20/0.50	ND	0.5	Pass
Carbofuran	0.04/0.10	ND	0.0	Pass
Chlorantraniliprole	0.04/0.10	ND	10.0	Pass
Chlordane	0.04/0.10	ND	0.0	Pass
Chlorfenapyr	0.04/0.10	ND	0.0	Pass
Chlorpyrifos	0.04/0.10	ND	0.0	Pass
Clofentezine	0.04/0.10	ND	0.1	Pass
Coumaphos	0.04/0.10	ND	0.0	Pass
Cyfluthrin	0.70/2.00	ND	2.0	Pass
Cypermethrin	0.35/1.00	ND	1.0	Pass
Daminozide	0.04/0.10	ND	0.0	Pass
DDVP (Dichlorovous)	0.04/0.10	ND	0.0	Pass
Diazinon	0.04/0.10	ND	0.1	Pass
Dimethoate	0.04/0.10	ND	0.0	Pass
Dimethomorph	0.04/0.10	ND	2.0	Pass
Ethoprop(hos)	0.04/0.10	ND	0.0	Pass
Etofenprox	0.04/0.10	ND	0.0	Pass
Etoxazole	0.04/0.10	ND	0.1	Pass
Fenhexamid	0.04/0.10	ND	0.1	Pass
Fenoxycarb	0.04/0.10	ND	0.0	Pass
Fenpyroximate	0.04/0.10	ND	0.1	Pass
Fipronil	0.04/0.10	ND	0.0	Pass
Fonicamid	0.04/0.10	ND	0.1	Pass
Fludioxanil	0.04/0.10	ND	0.1	Pass
Hexythiazox	0.04/0.10	ND	0.1	Pass
Imazalil	0.04/0.10	ND	0.0	Pass
Imidacloprid	0.04/0.10	ND	5.0	Pass
Kresoxim Methyl	0.04/0.10	ND	0.1	Pass
Malathion	0.20/0.50	ND	0.5	Pass
Metalaxyl	0.04/0.10	ND	2.0	Pass
Methiocarb	0.04/0.10	ND	0.0	Pass
Methomyl	0.04/1.00	ND	1.0	Pass
Methyl parathion	0.04/0.10	ND	0.0	Pass
Mevinphos	0.04/0.10	ND	0.0	Pass
Myclobutanil	0.04/0.10	ND	0.1	Pass
Naled	0.50/1.50	ND	0.1	Pass
Oxamyl	0.20/0.50	ND	0.5	Pass
Pacllobutrazol	0.04/0.10	ND	0.0	Pass
Pentachloronitrobenzene	0.04/0.10	ND	0.1	Pass
Permethrins	0.20/0.50	ND	0.5	Pass

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Phosmet	0.04/0.10	ND	0.1	Pass
Piperonyl Butoxide	0.04/0.10	ND	3.0	Pass
Prallethrin	0.50/1.50	ND	0.1	Pass
Propiconazole	0.04/0.10	ND	0.1	Pass
Propoxur	0.04/0.10	ND	0.0	Pass
Pyrethrins	0.20/0.50	ND	0.5	Pass
Pyridaben	0.04/0.10	ND	0.1	Pass
Spinetoram	0.04/0.10	ND	0.1	Pass
Spinosad	0.04/0.10	ND	0.1	Pass
Spiromesifen	0.04/0.10	ND	0.1	Pass
Spirotetramat	0.04/0.10	ND	0.1	Pass
Spiroxamine	0.04/0.10	ND	0.0	Pass
Tebuconazole	0.04/0.10	ND	0.1	Pass
Thiacloprid	0.04/0.10	ND	0.0	Pass
Thiamethoxam	0.35/1.00	ND	5.0	Pass
Trifloxystrobin	0.04/0.10	ND	0.1	Pass
Acetochlor	0.04-0.20 / 0.1-0.5	ND	-	-
Alachlor	0.04-0.20 / 0.1-0.5	ND	-	-
Aldicarb Sulfone	0.04-0.20 / 0.1-0.5	ND	-	-
Aldicarb sulfoxide*	0.04-0.20 / 0.1-0.5	ND	-	-
Aldrin*	0.04-0.20 / 0.1-0.5	ND	-	-
Atrazine	0.04-0.20 / 0.1-0.5	ND	-	-
Benfluralin	0.04-0.20 / 0.1-0.5	ND	-	-
BHC alpha	0.04-0.20 / 0.1-0.5	ND	-	-
BHC beta	0.04-0.20 / 0.1-0.5	ND	-	-
Bitertanol	0.04-0.20 / 0.1-0.5	ND	-	-
Buprofezin	0.04-0.20 / 0.1-0.5	ND	-	-
Carbendazim (MBC)	0.04-0.20 / 0.1-0.5	ND	-	-
Carfentrazone ethyl	0.04-0.20 / 0.1-0.5	ND	-	-
Chlorobenzilate	0.04-0.20 / 0.1-0.5	ND	-	-
Chlorotoluron	0.04-0.20 / 0.1-0.5	ND	-	-
Chlorpropham	0.04-0.20 / 0.1-0.5	ND	-	-
Chlorpyrifos methyl	0.04-0.20 / 0.1-0.5	ND	-	-
Chlorthiophos	0.04-0.20 / 0.1-0.5	ND	-	-
Clethodim	0.04-0.20 / 0.1-0.5	ND	-	-
Clomazone	0.04-0.20 / 0.1-0.5	ND	-	-
Clothianidin	0.04-0.20 / 0.1-0.5	ND	-	-
Cyazofamid*	0.04-0.20 / 0.1-0.5	ND	-	-
Cymoxanil*	0.04-0.20 / 0.1-0.5	ND	-	-
Cyprodinil*	0.04-0.20 / 0.1-0.5	ND	-	-
Cyromazine	0.04-0.20 / 0.1-0.5	ND	-	-
DCPA (Dacthal)	0.04-0.20 / 0.1-0.5	ND	-	-
Diallate	0.04-0.20 / 0.1-0.5	ND	-	-
Dieldrin	0.04-0.20 / 0.1-0.5	ND	-	-
Diflubenzuron	0.04-0.20 / 0.1-0.5	ND	-	-
Dimethachlor	0.04-0.20 / 0.1-0.5	ND	-	-
Diniconazole	0.04-0.20 / 0.1-0.5	ND	-	-
Dinotefuran	0.04-0.20 / 0.1-0.5	ND	-	-
Diphenamid	0.04-0.20 / 0.1-0.5	ND	-	-
Diphenylamine (DPA)	0.04-0.20 / 0.1-0.5	ND	-	-
Diuron	0.04-0.20 / 0.1-0.5	ND	-	-
Esfenvalerate	0.04-0.20 / 0.1-0.5	ND	-	-
Ethalfuralin	0.04-0.20 / 0.1-0.5	ND	-	-
Ethylan	0.04-0.20 / 0.1-0.5	ND	-	-
Etridazole*	0.04-0.20 / 0.1-0.5	<LOQ	-	-
Fenarimol	0.04-0.20 / 0.1-0.5	ND	-	-
Fenbuconazole	0.04-0.20 / 0.1-0.5	ND	-	-
Fenpropimorph	0.04-0.20 / 0.1-0.5	ND	-	-
Fenthion	0.04-0.20 / 0.1-0.5	ND	-	-
Fenvalerate	0.04-0.20 / 0.1-0.5	ND	-	-
Fluazifop-P-butyl	0.04-0.20 / 0.1-0.5	ND	-	-
Flubendiamide	0.04-0.20 / 0.1-0.5	ND	-	-
Fluchloralin	0.04-0.20 / 0.1-0.5	ND	-	-
Flucythrinate	0.04-0.20 / 0.1-0.5	ND	-	-
Fluoxastrobin	0.04-0.20 / 0.1-0.5	ND	-	-
Flusilazole	0.04-0.20 / 0.1-0.5	ND	-	-
Flutolanil	0.04-0.20 / 0.1-0.5	ND	-	-
Flutriafol	0.04-0.20 / 0.1-0.5	ND	-	-
Fonofos*	0.04-0.20 / 0.1-0.5	ND	-	-
Formetanate Hydrochloride	0.04-0.20 / 0.1-0.5	ND	-	-
Heptachlor	0.04-0.20 / 0.1-0.5	ND	-	-
Hexachlorobenzene	0.04-0.20 / 0.1-0.5	ND	-	-
Hexaconazole	0.04-0.20 / 0.1-0.5	ND	-	-
Hexazinone	0.04-0.20 / 0.1-0.5	ND	-	-
3-Hydroxycarbofuran	0.04-0.20 / 0.1-0.5	ND	-	-
Indoxacarb*	0.04-0.20 / 0.1-0.5	ND	-	-
Isazophos	0.04-0.20 / 0.1-0.5	ND	-	-
Isopropalin	0.04-0.20 / 0.1-0.5	ND	-	-

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Isoproturon	0.04-0.20 / 0.1-0.5	ND	-	-
Lindane	0.04-0.20 / 0.1-0.5	ND	-	-
Linuron*	0.04-0.20 / 0.1-0.5	ND	-	-
Mandipropamid	0.04-0.20 / 0.1-0.5	ND	-	-
Methamidophos	0.04-0.20 / 0.1-0.5	ND	-	-
Methoxychlor*	0.04-0.20 / 0.1-0.5	ND	-	-
4-4'-Methoxychlor olefin	0.04-0.20 / 0.1-0.5	ND	-	-
Methoxyfenozide	0.04-0.20 / 0.1-0.5	ND	-	-
Metolachlor	0.04-0.20 / 0.1-0.5	ND	-	-
MGK 264*	0.04-0.20 / 0.1-0.5	ND	-	-
Mirex*	0.04-0.20 / 0.1-0.5	ND	-	-
Novaluron	0.04-0.20 / 0.1-0.5	ND	-	-
5-OH Thiabendazole*	0.04-0.20 / 0.1-0.5	ND	-	-
Omethoate*	0.04-0.20 / 0.1-0.5	ND	-	-
Oxadiazon	0.04-0.20 / 0.1-0.5	ND	-	-
Oxyflourfen	0.04-0.20 / 0.1-0.5	ND	-	-
Parathion	0.04-0.20 / 0.1-0.5	ND	-	-
Pebulate*	0.04-0.20 / 0.1-0.5	ND	-	-
Penconazole	0.04-0.20 / 0.1-0.5	ND	-	-
Pendimethalin	0.04-0.20 / 0.1-0.5	ND	-	-
Pentachloroaniline	0.04-0.20 / 0.1-0.5	ND	-	-
Pentachloroanisole	0.04-0.20 / 0.1-0.5	ND	-	-
Pentachlorobenzene	0.04-0.20 / 0.1-0.5	ND	-	-
Pentachlorobenzonitrile	0.04-0.20 / 0.1-0.5	ND	-	-
2-Phenylphenol	0.04-0.20 / 0.1-0.5	ND	-	-
Pirimicarb	0.04-0.20 / 0.1-0.5	ND	-	-
Pirimiphos-ethyl	0.04-0.20 / 0.1-0.5	ND	-	-
Pirimiphos methyl	0.04-0.20 / 0.1-0.5	ND	-	-
Pretilachlor	0.04-0.20 / 0.1-0.5	ND	-	-
Prochloraz*	0.04-0.20 / 0.1-0.5	ND	-	-
Procymidone	0.04-0.20 / 0.1-0.5	ND	-	-
Propamocarb	0.04-0.20 / 0.1-0.5	ND	-	-
Propargite	0.04-0.20 / 0.1-0.5	ND	-	-
Propisochlor	0.04-0.20 / 0.1-0.5	ND	-	-
Propyzamide	0.04-0.20 / 0.1-0.5	ND	-	-
Prothiofos	0.04-0.20 / 0.1-0.5	ND	-	-
Pymetrozine	0.04-0.20 / 0.1-0.5	ND	-	-
Pyraclostrobin	0.04-0.20 / 0.1-0.5	ND	-	-
Pyrimethanil	0.04-0.20 / 0.1-0.5	ND	-	-
Pyriproxyfen	0.04-0.20 / 0.1-0.5	ND	-	-
Quinalphos	0.04-0.20 / 0.1-0.5	ND	-	-
Quintozene	0.04-0.20 / 0.1-0.5	ND	-	-
Sulfentrazone	0.04-0.20 / 0.1-0.5	ND	-	-
Sulfotep	0.04-0.20 / 0.1-0.5	ND	-	-
Tau-Fluvalinate	0.04-0.20 / 0.1-0.5	ND	-	-
Tebufenozide	0.04-0.20 / 0.1-0.5	ND	-	-
Tecnazene	0.04-0.20 / 0.1-0.5	ND	-	-
Tefluthrin	0.04-0.20 / 0.1-0.5	ND	-	-
Terbutylazine	0.04-0.20 / 0.1-0.5	ND	-	-
Tetrachloroaniline	0.04-0.20 / 0.1-0.5	ND	-	-
Tetradifon	0.04-0.20 / 0.1-0.5	ND	-	-
Thiobencarb	0.04-0.20 / 0.1-0.5	ND	-	-
Tolclofos-methyl	0.04-0.20 / 0.1-0.5	ND	-	-
Transfluthrin	0.04-0.20 / 0.1-0.5	ND	-	-
Triadimefon	0.04-0.20 / 0.1-0.5	ND	-	-
Triallate	0.04-0.20 / 0.1-0.5	ND	-	-
Trichlorfon	0.04-0.20 / 0.1-0.5	ND	-	-
Tricyclazole	0.04-0.20 / 0.1-0.5	ND	-	-
Triflumizole	0.04-0.20 / 0.1-0.5	ND	-	-
Trifluralin	0.04-0.20 / 0.1-0.5	ND	-	-
Vamidothion	0.04-0.20 / 0.1-0.5	ND	-	-
Vinclozolin	0.04-0.20 / 0.1-0.5	ND	-	-

RESIDUAL SOLVENT SCREEN ✔ Pass

03/21/2019

Method: USP OVI<467>

Instrument: Gas Chromatography Mass Spectrometry (GC/MS)

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
1,2-Dichloroethane	0.40/1.00	ND	1.0	Pass
Acetone	17/75	<LOQ	5000	Pass
Acetonitrile	1/6	ND	410	Pass
Benzene	0.40/1.00	ND	1.0	Pass
n-Butane	200/600	ND	5000	Pass
Chloroform	0.40/1.00	ND	1.0	Pass
Ethanol	22/100	ND	5000	Pass
Ethyl Acetate	9/40	ND	5000	Pass
Ethyl Ether	11/50	ND	5000	Pass
Ethylene Oxide	0.40/1.00	ND	1.0	Pass
n-Heptane	11/50	ND	5000	Pass
n-Hexane	1/5	ND	290	Pass
Isopropyl Alcohol	11/50	ND	5000	Pass
Methanol	6/25	ND	3000	Pass
Methylene Chloride	0.40/1.00	ND	1.0	Pass
n-Pentane	17/75	ND	5000	Pass
Propane	125/250	ND	5000	Pass
Toluene	3/15	ND	890	Pass
Total Xylenes	1/3	ND	2170	Pass
Trichloroethylene	0.40/1.00	ND	1.0	Pass

HEAVY METAL SCREEN ✔ Pass

03/22/2019

Method: MF 24E020

Instrument: ICP-MS

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Arsenic	0.02/0.05	ND	0.2	Pass
Cadmium	0.02/0.05	ND	0.2	Pass
Mercury	0.02/0.05	ND	0.1	Pass
Lead	0.02/0.05	ND	0.5	Pass

MYCOTOXIN SCREEN ✔ Pass

03/29/2019

Method: MF 21P030

Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD / LOQ (µg/kg)	Findings (µg/kg)	Limit (µg/kg)	Status
Total Aflatoxins	10/20	ND	20	Pass
Ochratoxin A	10/20	ND	20	Pass

OTHER ANALYSES

Analyte	Method	Instrument	Findings	Date Completed	Limit	Status
Moisture	AOAC 930.04	Vacuum or Forced Air Oven	1.64 %	03/21/2019	-	-

(-) = Not Tested, ND = None Detected, <LOQ = Below Limit of Quantitation, LOD = Limit of Detection

All LQC samples were performed and met the prescribed acceptance criteria in 16 CCR section 5730, pursuant to 16 CCR section 5726(e)(13)

Reported by


 Vu Lam
 Lab Co Director

April 10, 2019



Scan to verify



This report cannot be used for ODA, OHA or OLCC compliance requirements.

Customer: Klersun LLC

Product identity: PX-19065-NDT
Client/Metric ID: .
Sample Date:
Laboratory ID: 19-002873-0001
Relinquished by: Received By Mail
Temp: 19.9 °C
Weight Received: 4.5 g

Sample Results

Individual Analyses								
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Glyphosate	< LOQ		mg/kg	0.0500	1902492	03/25/19	QuPPE-method, EURL-SR	



This report cannot be used for ODA, OHA or OLCC compliance requirements.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Units of Measure

g = Gram

mg/kg = Milligram per kilogram

% wt = $\mu\text{g/g}$ divided by 10,000

Approved Signatory

Derrick Tanner
General Manager