



DEA No. RA0571996
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

Arete Hemp LLC
1887 Whitney Mesa
Henderson, NV 89014

Batch # Lot#: 01191
Batch Date: 2022-09-22
Extracted From: Hemp

Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ARE221019-010001
Order Date: 2022-10-19
Sample # AADP312

Sampling Date: 2022-10-20
Lab Batch Date: 2022-10-20
Completion Date: 2022-10-26

Initial Gross Weight: 61.915 g



Product Image

Potency Tested	Heavy Metals Passed	2-3-Butanedione Passed	Mycotoxins Passed	Pesticides Passed
Residual Solvents Passed	Pathogenic Microbiology Passed	Listeria Monocytogenes Passed	Vitamin E Passed	

Potency 10

Specimen Weight: 50.700 mg

Tested
SOP13.001 (LCUV)

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
THCA-A	10.000	3.20E-5	0.0015	999.5820	99.9582
CBGA	10.000	8.00E-5	0.0015	0.1520	0.0152
CBN	10.000	1.40E-5	0.0015	0.0570	0.0057
CBDA	10.000	1.00E-5	0.0015	0.0530	0.0053
CBG	10.000	2.48E-4	0.0015	0.0290	0.0029
THCV	10.000	7.00E-6	0.0015	0.0260	0.0026
CBC	10.000	1.80E-5	0.0015		<LOQ
CBD	10.000	5.40E-5	0.0015		<LOQ
CBDV	10.000	6.50E-5	0.0015		<LOQ
Delta-9 THC	10.000	1.30E-5	0.0015		<LOQ

Potency Summary

Total Active THC 87.663%	Total Active CBD 0.005%
Total CBG 0.016%	Total CBN 0.006%
Other Cannabinoids 0.003%	Total Cannabinoids 87.693%

Merged Potency from retest AADQ486

Mycotoxins

Specimen Weight: 261.200 mg

Passed
SOP13.007 (LCMS)

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	3.0400E-1	6	20	<LOQ
Aflatoxin B2	7.7000E-2	6	20	<LOQ
Aflatoxin G1	3.0400E-1	6	20	<LOQ

Pathogenic Microbiology SAE (MicroArray)

Passed
SOP13.019 (Micro Array)

Specimen Weight: 1018.830 mg

Analyte	Result (cfu/g)	Analyte	Result (cfu/g)
Aspergillus flavus	Absence in 1g	Aspergillus terreus	Absence in 1g
Aspergillus fumigatus	Absence in 1g	Salmonella	Absence in 1g
Aspergillus niger	Absence in 1g	STEC E. Coli	Absence in 1g

Xueli Gao
Xueli Gao
Ph.D., DABT
Lab Toxicologist

Aixia Sun
Aixia Sun
D.H.Sc., M.Sc., B.Sc., MT (AAB)
Lab Director/Principal Scientist



Definitions and Abbreviations used in this report: Total Active CBD = CBD + (CBD-A * 0.877), *Total CBDV = CBDV + (CBDVA * 0.87), Total Active THC = THCA-A * 0.877 + Delta 9 THC, Total THCV = THCV + (THCVA * 0.87), CBG Total = (CBGA * 0.877) + CBG, CBN Total = (CBNA * 0.877) + CBN, Total CBC = CBC + (CBCA * 0.877), Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, Total Detected Cannabinoids = Delta6a10a-THC + Delta8-THC + Total CBN + CBT + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate, Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram, *Measurement of Uncertainty = +/- 10%

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Sampling Method: MSP 7.3.1
Test Reg State: Florida

Order # ARE221019-010001
Order Date: 2022-10-19
Sample # AADP312

Sampling Date: 2022-10-20
Lab Batch Date: 2022-10-20
Completion Date: 2022-10-26

Initial Gross Weight: 61.915 g



Pesticides FL V4

Specimen Weight: 261.200 mg

Dilution Factor: 5.740

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	2.8800E-1	28.23	300	<LOQ	Fludioxonil	1.7400E+0	48	3000	<LOQ
Acephate	2.3000E-2	30	3000	<LOQ	Hexythiazox	4.9000E-2	30	2000	<LOQ
Acequinocyl	9.5640E+0	48	2000	<LOQ	Imazalil	2.4800E-1	30	100	<LOQ
Acetamiprid	5.2000E-2	30	3000	<LOQ	Imidacloprid	9.4000E-2	30	3000	<LOQ
Aldicarb	2.6000E-2	30	100	<LOQ	Kesoxim Methyl	4.2000E-2	30	1000	<LOQ
Azoxystrobin	8.1000E-2	10	3000	<LOQ	Malathion	8.2000E-2	30	2000	<LOQ
Bifenazate	1.4150E+0	30	3000	<LOQ	Metaxyl	8.1000E-2	10	3000	<LOQ
Bifenthrin	4.3000E-2	30	500	<LOQ	Methiocarb	3.2000E-2	30	100	<LOQ
Boscalid	5.5000E-2	10	3000	<LOQ	Methomyl	2.2000E-2	30	100	<LOQ
Captan	6.1200E+0	30	3000	<LOQ	methyl-Parathion	1.7100E+0	10	100	<LOQ
Carbaryl	2.2000E-2	10	500	<LOQ	Mevinphos	2.1500E+0	10	100	<LOQ
Carbofuran	3.4000E-2	10	100	<LOQ	Myclobutanil	1.0290E+0	30	3000	<LOQ
Chlorantraniliprole	3.3000E-2	10	3000	<LOQ	Naled	9.5000E-2	30	500	<LOQ
Chloridane	1.0000E+1	10	100	<LOQ	Oxamyl	2.5000E-2	30	500	<LOQ
Chlorfenapyr	3.4000E-2	30	100	<LOQ	Paclobutrazol	6.5000E-2	30	100	<LOQ
Chlomequat Chloride	1.0800E-1	10	3000	<LOQ	Pentachloronitrobenzene	1.3200E+0	10	200	<LOQ
Chlorpyrifos	3.5000E-2	30	100	<LOQ	Permethrin	3.4300E-1	30	1000	<LOQ
Clofentezine	1.1900E-1	30	500	<LOQ	Phosmet	8.2000E-2	30	200	<LOQ
Coumaphos	3.7700E+0	48	100	<LOQ	Piperonylbutoxide	2.9000E-2	30	3000	<LOQ
Cyfluthrin	3.1100E+0	30	1000	<LOQ	Prallethrin	7.9800E-1	30	400	<LOQ
Cypermethrin	1.4490E+0	30	1000	<LOQ	Propiconazole	7.0000E-2	30	1000	<LOQ
Daminozide	8.8500E-1	30	100	<LOQ	Propoxur	4.6000E-2	30	100	<LOQ
Diazinon	4.4000E-2	30	200	<LOQ	Pyrethrins	2.3593E+1	30	1000	<LOQ
Dichlorvos	2.1820E+0	30	100	<LOQ	Pyridaben	3.2000E-2	30	3000	<LOQ
Dimethoate	2.1000E-2	30	100	<LOQ	Spinetoram	8.0000E-2	10	3000	<LOQ
Dimethomorph	5.8300E+0	48	3000	<LOQ	Spinosad	8.8000E-2	30	3000	<LOQ
Ethoprophos	3.6000E-1	30	100	<LOQ	Spiromesifen	2.6100E-1	30	3000	<LOQ
Etofenprox	1.1600E-1	30	100	<LOQ	Spirotetramat	8.9000E-2	30	3000	<LOQ
Etoxazole	9.5000E-2	30	1500	<LOQ	Spiroxamine	1.3100E-1	30	100	<LOQ
Fenhexamid	5.1000E-1	10	3000	<LOQ	Tebuconazole	6.7000E-2	30	1000	<LOQ
Fenoxycarb	1.0700E-1	30	100	<LOQ	Thiacloprid	6.4000E-2	30	100	<LOQ
Fenpyroximate	1.3800E-1	30	2000	<LOQ	Thiamethoxam	5.0000E-2	30	1000	<LOQ
Fipronil	1.0700E-1	30	100	<LOQ	Trifloxystrobin	3.7000E-2	30	3000	<LOQ
Fonicamid	5.1700E-1	30	2000	<LOQ					

Passed
SOP13.007
(LCMS/GCMS)



2,3-butanedione(Diacetyl)

Specimen Weight: 311.900 mg

Dilution Factor: 1.000

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
2,3-Butanedione	.024	0.024	<LOQ

Passed
SOP13.039
(GCMS)



Listeria Monocytogenes

Specimen Weight: 979.900 mg

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g

Passed
SOP13.032
(qPCR)



Vitamin E (Tocopheryl Acetate)

Specimen Weight: 261.200 mg

Dilution Factor: 5.740

Analyte	LOD (ppb)	Result (ppb)
Tocophery acetate (vitamin E acetate)	.705	<LOQ

Passed
SOP13.007 (LC-MS)

Xueli Gao
Lab Toxicologist
Ph.D., DABT

Aixia Sun
Lab Director/Principal Scientist
D.H.Sc., M.Sc., B.Sc., MT (AAB)



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Residual Solvents - FL (CBD)

Specimen Weight: 311.900 mg

Passed
SOP13.039 (GCMS)

Dilution Factor: 1.000

Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethene	0.0094	0.16	8	<LOQ	Heptane	0.0013	1.39	5000	<LOQ
1,2-Dichloroethane	0.0003	0.04	5	<LOQ	Hexane	0.068	1.17	290	<LOQ
Acetone	0.015	2.08	5000	<LOQ	Isopropyl alcohol	0.0048	1.39	500	<LOQ
Acetonitrile	0.06	1.17	410	<LOQ	Methanol	0.0005	0.69	3000	<LOQ
Benzene	0.0002	0.02	2	<LOQ	Methylene chloride	0.0029	2.43	600	<LOQ
Butanes	0.4167	2.5	2000	<LOQ	Pentane	0.037	2.08	5000	290.833
Chloroform	0.0001	0.04	60	<LOQ	Propane	0.031	5.83	2100	<LOQ
Ethanol	0.0021	2.78	5000	<LOQ	Toluene	0.0009	2.92	890	<LOQ
Ethyl Acetate	0.0012	1.11	5000	<LOQ	Total Xylenes	0.0001	2.92	2170	<LOQ
Ethyl Ether	0.0049	1.39	5000	<LOQ	Trichloroethylene	0.0014	0.49	80	<LOQ
Ethylene Oxide	0.0038	0.1	5	<LOQ					

Heavy Metals

Specimen Weight: 247.680 mg

Passed
SOP13.048 (ICP-MS)

Dilution Factor: 201

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	4.83	100	1500	<LOQ	Lead (Pb)	11.76	100	500	<LOQ
Cadmium (Cd)	.64	100	500	<LOQ	Mercury (Hg)	.58	100	3000	<LOQ

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Xueli Gao Lab Toxicologist
Ph.D., DABT

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Aixia Sun Lab Director/Principal Scientist
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