

HHC

 Sample ID:
 Batch:
 Type: In-Process Materials
 Matrix: Concentrate - Distillate
 Unit Mass (g):

 Received: 01/05/2023
 Completed: 01/17/2023

Client


Summary

Test	Date Tested	Status
Cannabinoids	01/17/2023	Tested
Heavy Metals	01/09/2023	Tested
Microbials	01/12/2023	Tested
Mycotoxins	01/10/2023	Tested
Pesticides	01/10/2023	Tested
Residual Solvents	01/17/2023	Tested
Terpenes	01/09/2023	Tested

ND Total Δ9-THC	52.5 % (6aR,9R,10aR)-HHC	95.3 % Total Cannabinoids	Not Tested Moisture Content	Not Tested Foreign Matter	Yes Internal Standard Normalization
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Cannabinoids by HPLC-PDA, LC-MS/MS, and/or GC-MS/MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Result (mg/g)
CBC	0.0095	0.0284	ND	ND
CBCA	0.0181	0.0543	ND	ND
CBCV	0.006	0.018	ND	ND
CBD	0.0081	0.0242	ND	ND
CBDA	0.0043	0.013	ND	ND
CBDV	0.0061	0.0182	ND	ND
CBDVA	0.0021	0.0063	ND	ND
CBG	0.0057	0.0172	ND	ND
CBGA	0.0049	0.0147	ND	ND
CBL	0.0112	0.0335	ND	ND
CBLA	0.0124	0.0371	ND	ND
CBN	0.0056	0.0169	ND	ND
CBNA	0.006	0.0181	ND	ND
CBT	0.018	0.054	ND	ND
Δ8-THC	0.0104	0.0312	0.198	1.98
Δ9-THC	0.0076	0.0227	ND	ND
Δ9-THCA	0.0084	0.0251	ND	ND
Δ9-THCV	0.0069	0.0206	ND	ND
Δ9-THCVA	0.0062	0.0186	ND	ND
(6aR,9R,10aR)-HHC	0.0067	0.02	52.5	525
(6aR,9S,10aR)-HHC	0.0067	0.02	42.6	426
Total Δ9-THC			ND	ND
Total CBD			ND	ND
Total			95.3	953

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; RL = Reporting Limit; Δ = Delta; Total Δ9-THC = Δ9-THCA * 0.877 + Δ9-THC; Total CBD = CBDA * 0.877 + CBD;



 Generated By: Ryan Bellone
 CCO
 Date: 01/17/2023



 Tested By: Scott Caudill
 Senior Scientist
 Date: 01/17/2023

 ISO/IEC 17025:2017 Accredited
 Accreditation #108651


This product or substance has been tested by KCA Laboratories using validated testing methodologies and an ISO/IEC 17025:2017 accredited quality system. Values reported relate only to the product or substance tested. The reported result is based on a sample weight. Unless otherwise stated, results of tests performed on all quality control samples met criteria for acceptance established by KCA Laboratories. KCA Laboratories and its employees do not warrant the accuracy of the results of the tests performed on samples received from other sources. This Certificate of Analysis is not to be used for legal purposes.

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Terpenes by GC-MS

Analyte	LOD (%)	LOQ (%)	Result (%)	Analyte	LOD (%)	LOQ (%)	Result (%)
α -Bisabolol	0.00100	0.00500	ND	Limonene	0.001	0.005	ND
(+)-Borneol	0.00100	0.00500	ND	Linalool	0.001	0.005	ND
Camphene	0.00100	0.00500	ND	β -myrcene	0.001	0.005	ND
Camphor	0.00100	0.00500	ND	Nerol	0.001	0.005	ND
3-Carene	0.00100	0.00500	ND	cis-Nerolidol	0.001	0.005	ND
β -Caryophyllene	0.00100	0.00500	ND	trans-Nerolidol	0.001	0.005	ND
Caryophyllene Oxide	0.00100	0.00500	ND	Ocimene	0.001	0.005	ND
α -Cedrene	0.00100	0.00500	ND	α -Phellandrene	0.001	0.005	ND
Cedrol	0.00100	0.00500	ND	α -Pinene	0.001	0.005	ND
Eucalyptol	0.00100	0.00500	ND	β -Pinene	0.001	0.005	ND
Fenchone	0.00100	0.00500	ND	Pulegone	0.001	0.005	ND
Fenchyl Alcohol	0.00100	0.00500	ND	Sabinene	0.001	0.005	ND
Geraniol	0.00100	0.00500	ND	Sabinene Hydrate	0.001	0.005	ND
Geranyl Acetate	0.00100	0.00500	ND	α -Terpinene	0.001	0.005	ND
Guaiol	0.00100	0.00500	ND	γ -Terpinene	0.001	0.005	ND
Hexadhydrothymol	0.00100	0.00500	ND	α -Terpineol	0.001	0.005	ND
α -Humulene	0.00100	0.00500	ND	γ -Terpineol	0.001	0.005	ND
Isoborneol	0.00100	0.00500	ND	Terpinolene	0.001	0.005	ND
Isopulegol	0.00100	0.00500	ND	Total Terpenes (%)			0.000

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 CCO
 Date: 01/17/2023



 Tested By: Alex Morris
 Quality Assurance Manager
 Date: 01/09/2023


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Heavy Metals by ICP-MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Arsenic	2	20	ND
Cadmium	1	20	ND
Lead	2	20	ND
Mercury	12	50	ND

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 CCO
 Date: 01/17/2023



Tested By: Kelsey Rogers
 Scientist
 Date: 01/09/2023



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Pesticides by LC-MS/MS and GC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
Acephate	30	100	ND	Hexythiazox	30	100	ND
Acequinocyl	30	100	ND	Imazalil	30	100	ND
Acetamiprid	30	100	ND	Imidacloprid	30	100	ND
Aldicarb	30	100	ND	Kresoxim methyl	30	100	ND
Azoxystrobin	30	100	ND	Malathion	30	100	ND
Bifenazate	30	100	ND	Metalaxyl	30	100	ND
Bifenthrin	30	100	ND	Methiocarb	30	100	ND
Boscalid	30	100	ND	Methomyl	30	100	ND
Carbaryl	30	100	ND	Mevinphos	30	100	ND
Carbofuran	30	100	ND	Myclobutanil	30	100	ND
Chloranthraniliprole	30	100	ND	Naled	30	100	ND
Chlorfenapyr	30	100	ND	Oxamyl	30	100	ND
Chlorpyrifos	30	100	ND	Paclobutrazol	30	100	ND
Clofentezine	30	100	ND	Permethrin	30	100	ND
Coumaphos	30	100	ND	Phosmet	30	100	ND
Daminozide	30	100	ND	Piperonyl Butoxide	30	100	ND
Diazinon	30	100	ND	Prallethrin	30	100	ND
Dichlorvos	30	100	ND	Propiconazole	30	100	ND
Dimethoate	30	100	ND	Propoxur	30	100	ND
Dimethomorph	30	100	ND	Pyrethrins	30	100	ND
Ethoprophos	30	100	ND	Pyridaben	30	100	ND
Etofenprox	30	100	ND	Spinetoram	30	100	ND
Etoxazole	30	100	ND	Spinosad	30	100	ND
Fenhexamid	30	100	ND	Spiromesifen	30	100	ND
Fenoxycarb	30	100	ND	Spirotetramat	30	100	ND
Fenpyroximate	30	100	ND	Spiroxamine	30	100	ND
Fipronil	30	100	ND	Tebuconazole	30	100	ND
Flonicamid	30	100	ND	Thiacloprid	30	100	ND
Fludioxonil	30	100	ND	Thiamethoxam	30	100	ND
				Trifloxystrobin	30	100	ND

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 Generated By: Ryan Bellone
 CCO

Date: 01/17/2023



Tested By: Madeline Mitchell

Date: 01/10/2023



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Mycotoxins by LC-MS/MS

Analyte	LOD (ppb)	LOQ (ppb)	Result (ppb)
B1	1	5	ND
B2	1	5	ND
G1	1	5	ND
G2	1	5	ND

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Generated By: Ryan Bellone
 CCO

Date: 01/17/2023



Tested By: Madeline Mitchell

Date: 01/10/2023



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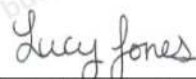
Microbials by PCR and Plating

Analyte	LOD (CFU/g)	Result (CFU/g)
Total aerobic count	1	ND
Total coliforms	1	ND
Generic E. coli	1	ND
Salmonella spp.	1	ND
Shiga-toxin producing E. coli (STEC)	1	ND

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Generated By: Ryan Bellone
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 Date: 01/17/2023



Tested By: Lucy Jones
 Scientist
 Date: 01/12/2023



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Residual Solvents by HS-GC-MS/MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)
Acetone	167	500	ND	Ethylene Glycol	21	62	ND
Acetonitrile	14	41	ND	Ethylene Oxide	0.5	1	ND
Benzene	0.5	1	ND	Heptane	167	500	ND
Butane	167	500	ND	n-Hexane	10	29	ND
1-Butanol	167	500	ND	Isobutane	167	500	ND
2-Butanol	167	500	ND	Isopropyl Acetate	167	500	ND
2-Butanone	167	500	ND	Isopropyl Alcohol	167	500	ND
Chloroform	2	6	ND	Isopropylbenzene	167	500	ND
Cyclohexane	129	388	ND	Methanol	100	300	ND
1,2-Dichloroethane	0.5	1	ND	2-Methylbutane	10	29	ND
1,2-Dimethoxyethane	4	10	ND	Methylene Chloride	20	60	ND
Dimethyl Sulfoxide	167	500	ND	2-Methylpentane	10	29	ND
N,N-Dimethylacetamide	37	109	ND	3-Methylpentane	10	29	ND
2,2-Dimethylbutane	10	29	ND	n-Pentane	167	500	ND
2,3-Dimethylbutane	10	29	ND	1-Pentanol	167	500	ND
N,N-Dimethylformamide	30	88	ND	n-Propane	167	500	ND
2,2-Dimethylpropane	167	500	ND	1-Propanol	167	500	ND
1,4-Dioxane	13	38	ND	Pyridine	7	20	ND
Ethanol	167	500	ND	Tetrahydrofuran	24	72	ND
2-Ethoxyethanol	6	16	ND	Toluene	30	89	ND
Ethyl Acetate	167	500	ND	Trichloroethylene	3	8	ND
Ethyl Ether	167	500	ND	Tetramethylene Sulfone	6	16	ND
Ethylbenzene	3	7	ND	Xylenes (o-, m-, and p-)	73	217	ND

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Tested By: Scott Caudill
 Senior Scientist
 Date: 01/17/2023



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