



Certificate of Analysis



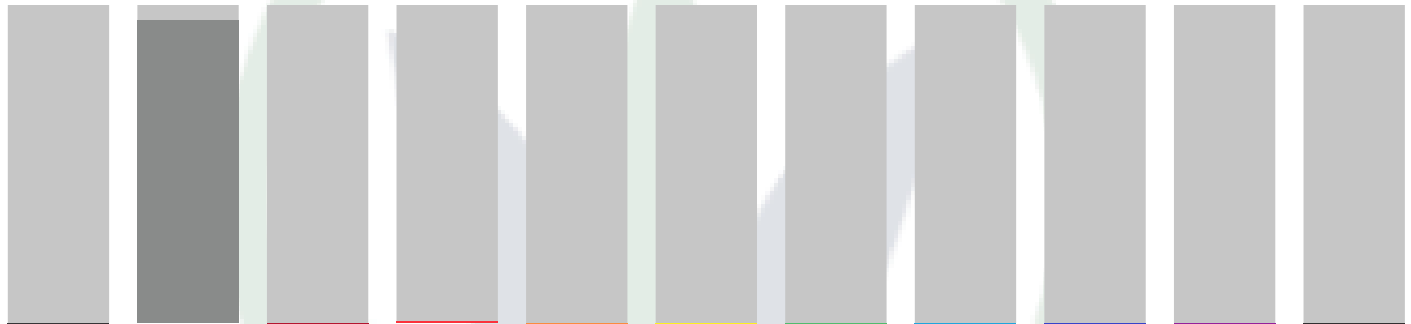
3113660766309012 NKY TOB ISOLATE
Matrix: Derivative
Accession Number: 112421UD0006
Harvest/Lot ID: 3113660766309012 NKYTOB
Seed to Sale: *
Batch Date: 11/23/21
Batch #: 3113660766309012 NKYTOB ISOLATE
Sample Size Received: 30 ml
Retail Product Size: 30 ml
Ordered: 11/23/21
Completed: 12/01/21
Sampling Method: SOP Client Method

Dec 01, 2021 | Aerosource H


 Kevil, KY,
 (270) 462-2742

CANNABINOID RESULTS

Total THC 0.000%	Total CBD 99.487%	Total Cannabinoids 99.980%
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	CBC	CBD	CBDA	CBDV	CBG	CBGA	CBN	D8-THC	D9-THC	THCA	THCV
Conc.(wt%)	ND	99.487	ND	0.493	ND	ND	ND	ND	ND	ND	ND
Conc.(mg/g)	ND	994.870	ND	4.930	ND	ND	ND	ND	ND	ND	ND
LOQ	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04

Analyzed by	Date	Instrument used	Analysis Method
TW	11/29/2021	Shimadzu HPLC w/ PDA	SOP.KY.02.012

Full spectrum cannabinoid analysis utilizing High Performance Liquid Chromatography with UV detection (HPLC-PDA). SOP.KY.02.005 for sample prep and SOP.KY.02.012 for analysis. % = %w/w = Percent (Weight of Analyte/Weight Product) Total Cannabinoids result reflects the absolute sum of all cannabinoids detected. **Total Potential THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation Total THC = THC + (THCa*0.877) Total CBD = CBD + (CBDa*0.877)

Filth & Foreign Matter	PASSED
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Analyzed by	Date	Instrument used	Analysis Method
TW	11/29/2021	Microscope (Amscope)	SOP.KY.02.011

This includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. An SH-2B/T Stereo Microscope is used for inspection. (Method: SOP.KY.02.011)

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Daniel Burriss

 Lab Director
 State License # 19-05-02P
 ISO/IEC 17025:2017

12/01/21

Signature

Signed On



Accreditation 113856



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Aerosource H


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Pesticides						PASSED					
Pesticides	LLOQ	Result	Units	Action Level	Pass / Fail	Pesticides	LLOQ	Result	Units	Action Level	Pass / Fail
Abamectin B1a	0.02	ND	ppm	0.5	PASS	Acephate	0.01	ND	ppm	0.4	PASS
Acequinocyl	0.05	ND	ppm	2	PASS	Acetamiprid	0.01	ND	ppm	0.2	PASS
Aldicarb	0.02	ND	ppm	0.4	PASS	Azoxystrobin	0.01	ND	ppm	0.2	PASS
Bifenazate	0.01	ND	ppm	3.0	PASS	Bifenthrin	0.01	ND	ppm	0.2	PASS
Boscalid	0.01	ND	ppm	0.4	PASS	Carbaryl	0.01	ND	ppm	0.2	PASS
Carbofuran	0.01	ND	ppm	0.2	PASS	Chlorantraniliprole	0.01	ND	ppm	0.2	PASS
Chlorpyrifos	0.01	ND	ppm	0.2	PASS	cis-Permethrin	0.0041	ND	ppm	0.4	PASS
Clofentezine	0.01	ND	ppm	0.2	PASS	Coumaphos	0.01	ND	ppm	0.2	PASS
Cypermethrin	0.02	ND	ppm	1	PASS	Daminozide	0.02	ND	ppm	1	PASS
Diazanone	0.01	ND	ppm	0.2	PASS	Dichlorvos	0.05	ND	ppm	0.1	PASS
Dimethoate	0.01	ND	ppm	0.2	PASS	Dimethomorph	0.005	ND	ppm	0.1	PASS
Ethoprophos	0.01	ND	ppm	0.2	PASS	Etofenprox	0.01	ND	ppm	0.4	PASS
Etoxazole	0.01	ND	ppm	0.2	PASS	Fenhexamid	0.005	ND	ppm	0.1	PASS
Fenoxycarb	0.01	ND	ppm	0.2	PASS	Fenpyroximate	0.01	ND	ppm	0.4	PASS
Fipronil	0.02	ND	ppm	0.4	PASS	Flonicamid	0.01	ND	ppm	1	PASS
Fludioxonil	0.01	ND	ppm	0.4	PASS	Hexythiazox	0.01	ND	ppm	1	PASS
Imazalil	0.01	ND	ppm	0.2	PASS	Imidacloprid	0.01	ND	ppm	0.4	PASS
Kresoxim-Methyl	0.01	ND	ppm	0.4	PASS	Malathion	0.01	ND	ppm	0.2	PASS
Metalaxyl	0.01	ND	ppm	0.2	PASS	Methiocarb	0.01	ND	ppm	0.2	PASS
Methomyl	0.01	ND	ppm	0.4	PASS	Mevinphos	0.01	ND	ppm	0.1	PASS
Myclobutanil	0.01	ND	ppm	0.2	PASS	Naled	0.01	ND	ppm	0.5	PASS
Oxamyl	0.01	ND	ppm	1	PASS	Paclobutrazol	0.01	ND	ppm	0.4	PASS
Permethrins (sum)	0.05	ND	ppm	1	PASS	Phosmet	0.01	ND	ppm	0.2	PASS
Piperonyl Butoxide	0.01	ND	ppm	2	PASS	Prallethrin	0.05	ND	ppm	0.2	PASS
Propiconazole	0.01	ND	ppm	0.4	PASS	Propoxur	0.01	ND	ppm	0.2	PASS
Pyrethrin I	0.01	ND	ppm	1	PASS	Pyridaben	0.01	ND	ppm	0.2	PASS
Spinetoram	0.01	ND	ppm	0.5	PASS	Spinosad (Spinosyn A)	0.01	ND	ppm	0.2	PASS
Spinosad (Spinosyn D)	0.01	ND	ppm	0.2	PASS	Spiromesifen	0.01	ND	ppm	0.2	PASS
Spirotetramat	0.02	ND	ppm	0.2	PASS	Spiroxamine	0.01	ND	ppm	0.2	PASS
Tebuconazole	0.01	ND	ppm	0.4	PASS	Thiacloprid	0.01	ND	ppm	0.2	PASS
Thiamethoxam	0.01	ND	ppm	0.2	PASS	trans-Permethrin	0.0118	ND	ppm	0.4	PASS
Trifloxystrobin	0.01	ND	ppm	0.2	PASS						

Analyzed by	Date	Instrument used	Analysis Method
DB	11/29/2021	Shimadzu LCMSMS 8060	SOP.KY.02.022

Pesticide screening is performed using LC/MS/MS which can screen down to below single digit ppb concentrations for the 57 pesticides analyzed. (Method: SOP.KY.02.022)

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Mycotoxins	PASSED
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Analyte	LLOQ	Result	Units	Action Level	Pass / Fail	Analyte	LLOQ	Result	Units	Action Level	Pass / Fail
Aflatoxin B1	0.001	ND	ppm	0.2	PASS	Aflatoxin B2	0.001	ND	ppm	0.2	PASS
Aflatoxin G1	0.001	ND	ppm	0.2	PASS	Aflatoxin G2	0.001	ND	ppm	0.2	PASS
Ochratoxin A+	0.001	ND	ppm	0.2	PASS						

Analyzed by	Date	Instrument used	Analysis Method
DB	11/29/2021	Shimadzu LCMSMS 8060	SOP.KY.02.022

Aflatoxins B1, B2, G1, G2, and Ochratoxins A testing using LC/MS/MS. (Method: SOP.KY.02.022)

Residual Solvents	PASSED
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Solvent	LLOQ	Result	Units	Action Level (PPM)	Pass/Fail
2-Propanol	60	ND	ppm	5000	PASS
Acetone	60	ND	ppm	5000	PASS
Acetonitrile	60	ND	ppm	410	PASS
Butane	200	ND	ppm	5000	PASS
Ethanol	80	ND	ppm	5000	PASS
Ethyl Acetate	60	ND	ppm	5000	PASS
Ethyl Ether	40	ND	ppm	5000	PASS
Heptane	40	ND	ppm	5000	PASS
Hexane	40	ND	ppm	290	PASS
Isobutane	200	ND	ppm	5000	PASS
M/P-Xylene	80	ND	ppm	2170	PASS
Methanol	40	ND	ppm	3000	PASS
O-Xylene	40	ND	ppm	2170	PASS
Pentane	60	439	ppm	5000	PASS
Propane	400	ND	ppm	5000	PASS
Toluene	40	ND	ppm	890	PASS
Total Xylenes	120	ND	ppm	2170	PASS

Analyzed by	Date	Instrument used	Analysis Method
DB	11/29/2021	Shimadzu GC 2010+	SOP.KY.02.016

Residual solvents testing for 16 common extraction solvents is performed via GC/MS. (Method: SOP.KY.02.024)

Heavy Metals	PASSED
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Metal	LLOQ	Result	Unit	Action Level	Pass / Fail
Arsenic	0.2	ND	ppm	2	PASS
Cadmium	0.2	ND	ppm	2	PASS
Lead	0.2	ND	ppm	5	PASS
Mercury	0.2	ND	ppm	1	PASS

Analyzed by	Date	Instrument used	Analysis Method
DB	11/30/2021	Shimadzu ICP/MS	SOP.KY.02.020

Heavy Metals screening is performed using ICP-MS (Inductively Coupled Plasma - Mass Spectrometer) which can screen for toxic heavy metals (Arsenic, Cadmium, Lead, and Mercury). (Method SOP.KY.02.020)

Microbials	PASSED
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Analyte	Result
Aspergillus Flavus	not present in 1 gram.
Aspergillus Fumigatus	not present in 1 gram.
Aspergillus Niger	not present in 1 gram.
Aspergillus Terreus	not present in 1 gram.
E. Coli	not present in 1 gram.
Salmonella	not present in 1 gram.

Analyzed by	Date	Instrument used	Analysis Method
TW	11/29/2021	PathogenDX	SOP.KY.02.018

Microbiological testing for Fungal and Bacterial Identification via Polymerase Chain Reaction (PCR) method consisting of sample DNA amplified via tandem Polymerase Chain Reaction (PCR) as a crude lysate which avoids purification. (Method SOP.KY.02.018) If a pathogenic Escherichia Coli, Salmonella, Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger, or Aspergillus terreus is detected in 1g of a sample, the sample fails the microbiological-impurity testing.

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