

# Certificate of Analysis

For R&amp;D Use Only - Not a California Compliance Certificate.

# Mac 1

Client: Illuminent

Total CBD	ND
Total THC	26.92 %
Total Cannabinoids	30.68 %

**Sample Name:**

Mac 1

**Matrix:**

Plant

**Unit Mass:**

1 g per unit

**Sample ID:**

6740912-2

**Date Received:**

9/12/2024



Approved By:

Marie True, M.S.

Laboratory Manager

This certificate of analysis is responsible for the tested sample only and is for research and development (R&D) use only. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of FESA Labs. FESA Labs shall not be liable for any damage that may result from the data contained herein in any way. FESA Labs makes no claim to the efficacy, safety or other risks associated with any detected or non-detected amounts of any substances reported herein. If there are any questions with this report please email [info@fesalabs.com](mailto:info@fesalabs.com). This certificate of analysis is intended only for the use of the party to whom it is addressed and may contain information that is confidential or protected from disclosure under applicable law. If you have received this document in error, please immediately contact us.

**References:** limit of detection (LOD), limit of quantitation (LOQ), not detected (ND), not tested (NT)

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Client: Illuminent

## Cannabinoid Analysis

Complete

Analyte	LOD (%)	LOQ (%)	Mass (%)	Mass (mg/g)
CBDV	0.0035	0.011	ND	ND
CBD	0.0030	0.0090	ND	ND
CBG	0.0038	0.011	ND	ND
CBDa	0.0017	0.0052	ND	ND
CBN	0.00080	0.0024	ND	ND
Delta 9-THC	0.0022	0.0067	0.116	1.16
Delta 8-THC	0.0020	0.0059	ND	ND
CBC	0.00070	0.0021	ND	ND
THCA	0.0024	0.0073	30.561	305.61
Total CBD			ND	ND
Total THC			26.917	269.17
Total Cannabinoids			30.676	306.76

Date Tested: 9/12/2024

Total THC = THCa \* 0.877 + d9-THC + d8-THC

Total CBD = CBDa \* 0.877 + CBD

Method References:

Testing Location

Cannabinoid Profile (UNODC)

FESA Labs - Santa Ana, CA

Official Methods of Analysis, Method 2018.11. AOAC INTERNATIONAL (modified), Lukas Vaclavik, Frantisek Benes, Alex Krmela, Veronika Svobodova, Jana Hajsova, and Katerina Mastovska, "Quantification of Cannabinoids in Cannabis Dried Plant Materials, Concentrates, and Oils Liquid Chromatography-Diode Array Detection Technique with Optional Mass Spectrometric Detection," First Action Method, Journal of AOAC International, Future Issue

United Nations Office on Drugs and Crime - Recommended methods for identification and analysis of cannabis and cannabis products

Testing Location:

FESA Labs

2002 S. Grand Ave., Suite A

Santa Ana, CA 92705

(714) 540-0172

www.fesalabs.com

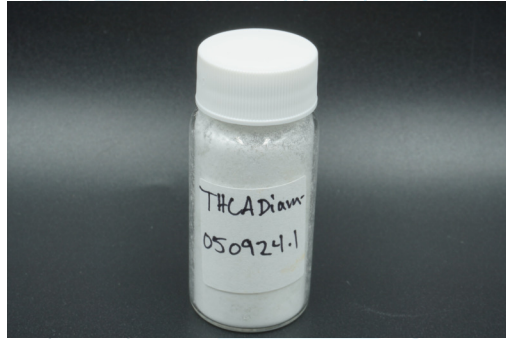
**THCADiam-050924.1**

Sample ID: SA-250115-55432  
 Batch: THCADiam-050924.1  
 Type: In-Process Material  
 Matrix: Concentrate - Diamonds  
 Unit Mass (g):

Received: 05/22/2024  
 Completed: 06/12/2024

**Client**

Illuminent  
 112 North Church Street  
 Carmi, IL 62821  
 USA  
 Lic. #: 1200-96 (Grow) 1204-30 (Process)


**Summary**

**Test**  
 Cannabinoids  
 Heavy Metals  
 Pesticides  
 Residual Solvents

**Date Tested**

06/03/2024  
 06/11/2024  
 06/12/2024  
 06/10/2024

**Status**

Tested  
 Passed  
 Passed  
 Passed

<b>ND</b> Δ9-THC	<b>99.2 %</b> Δ9-THCA	<b>99.8 %</b> Total Cannabinoids	<b>Not Tested</b> Moisture Content	<b>Not Tested</b> Foreign Matter	<b>Yes</b> Internal Standard Normalization
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**Cannabinoids by HPLC-PDA**

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	0.186	1.86
CBT	0.018	0.054	ND	ND
Δ8-THC	0.0104	0.0312	ND	ND
Δ9-THC	0.0076	0.0227	ND	ND
Δ9-THCA	0.0084	0.0251	99.2	992
Δ9-THCV	0.0069	0.0206	ND	ND
Δ9-THCVA	0.0062	0.0186	0.411	4.11
<b>Total Δ9-THC</b>			<b>87.0</b>	<b>870</b>
<b>Total</b>			<b>99.8</b>	<b>998</b>

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: 01/15/2025



Tested By: Kelsey Rogers  
 Scientist

Date: 06/03/2024



ISO/IEC 17025:2017 Accredited  
 Accreditation #108651





**KCA Laboratories**  
232 North Plaza Drive  
Nicholasville, KY 40356

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<https://kcalabs.com>  
KDA Lic.# P\_0058

## Certificate of Analysis

2 of 5

### THCADiam-050924.1

Sample ID: SA-250115-55432  
Batch: THCADiam-050924.1  
Type: In-Process Material  
Matrix: Concentrate - Diamonds  
Unit Mass (g):

Received: 05/22/2024  
Completed: 06/12/2024

**Client**  
Illuminant  
112 North Church Street  
Carmi, IL 62821  
USA  
Lic. #: 1200-96 (Grow) 1204-30 (Process)

### Heavy Metals by ICP-MS

Analyte	LOD (ppm)	LOQ (ppm)	Result (ppm)	P/F
Arsenic	0.002	0.02	ND	P
Cadmium	0.001	0.02	ND	P
Lead	0.002	0.02	<RL	P
Mercury	0.012	0.05	ND	P

ND = Not Detected; NT = Not Tested; LOD = Limit of Detection; LOQ = Limit of Quantitation; P = Pass; F = Fail; RL = Reporting Limit; Values over action limits may be estimates

Generated By: Ryan Bellone  
CCO

Date: 01/15/2025

Tested By: Chris Farman  
Scientist

Date: 06/11/2024



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**Client**

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 Lic. #: 1200-96 (Grow) 1204-30 (Process)

**Pesticides by LC-MS/MS**

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

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Generated By: Ryan Bellone  
 CCO

Date: 01/15/2025



Tested By: Anthony Mattingly  
 Scientist

Date: 06/12/2024



**THCADiam-050924.1**

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**Residual Solvents by HS-GC-MS**

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

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Generated By: Ryan Bellone  
 CCO

Date: 01/15/2025



Tested By: Kelsey Rogers  
 Scientist

Date: 06/10/2024





## THCADiam-050924.1

Sample ID: SA-250115-55432  
 Batch: THCADiam-050924.1  
 Type: In-Process Material  
 Matrix: Concentrate - Diamonds  
 Unit Mass (g):

Received: 05/22/2024  
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 USA  
 Lic. #: 1200-96 (Grow) 1204-30 (Process)

## Reporting Limit Appendix

### Heavy Metals - KY 902 KAR 45:190

Analyte	Limit (ppm)	Analyte	Limit (ppm)
Arsenic	1.5	Lead	0.5
Cadmium	0.5	Mercury	1.5

### Residual Solvents - USP 467

Analyte	Limit (ppm)	Analyte	Limit (ppm)
Acetone	5000	Ethylene Oxide	1
Acetonitrile	410	Heptane	5000
Benzene	2	n-Hexane	290
Butane	5000	Isobutane	5000
1-Butanol	5000	Isopropyl Acetate	5000
2-Butanol	5000	Isopropyl Alcohol	5000
2-Butanone	5000	Isopropylbenzene	5000
Chloroform	60	Methanol	3000
Cyclohexane	3880	2-Methylbutane	290
1,2-Dichloroethane	5	Methylene Chloride	600
1,2-Dimethoxyethane	100	2-Methylpentane	290
Dimethyl Sulfoxide	5000	3-Methylpentane	290
N,N-Dimethylacetamide	1090	n-Pentane	5000
2,2-Dimethylbutane	290	1-Pentanol	5000
2,3-Dimethylbutane	290	n-Propane	5000
N,N-Dimethylformamide	880	1-Propanol	5000
2,2-Dimethylpropane	5000	Pyridine	200
1,4-Dioxane	380	Tetrahydrofuran	720
Ethanol	5000	Toluene	890
2-Ethoxyethanol	160	Trichloroethylene	80
Ethyl Acetate	5000	Xylenes (o-, m-, and p-)	2170
Ethyl Ether	5000		
Ethylbenzene	70		

### Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Carbofuran	30	Myclobutanil	9000
Chloranthraniliprole	40000	Naled	500
Chlorfenapyr	30	Oxamyl	200
Chlorpyrifos	30	Paclobutrazol	30
Clofentezine	500	Permethrin	20000
Coumaphos	30	Phosmet	200
Cypermethrin	1000	Piperonyl Butoxide	8000
Daminozide	30	Prallethrin	400
Diazinon	200	Propiconazole	20000
Dichlorvos	30	Propoxur	30
Dimethoate	30	Pyrethrins	1000
Dimethomorph	20000	Pyridaben	3000
Ethoprophos	30	Spinetoram	3000
Etofenprox	30	Spinosad	3000
Etoazole	1500	Spiromesifen	12000
Fenhexamid	10000	Spirotetramat	13000
Fenoxycarb	30	Spiroxamine	30
Fenpyroximate	2000	Tebuconazole	2000
Fipronil	30	Thiacloprid	30
Fonicamid	2000	Thiamethoxam	4500
Fludioxonil	30000	Trifloxystrobin	30000

### Pesticides - CA DCC

Analyte	Limit (ppb)	Analyte	Limit (ppb)
Abamectin	300	Hexythiazox	2000
Acephate	5000	Imazalil	30
Acetamiprid	5000	Imidacloprid	3000
Aldicarb	30	Kresoxim methyl	1000
Azoxystrobin	40000	Malathion	5000
Bifenazate	5000	Metaxyl	15000
Bifenthrin	500	Methiocarb	30
Boscalid	10000	Methomyl	100
Carbaryl	500	Mevinphos	30

