

# **Hemp Quality Assurance Testing CERTIFICATE OF ANALYSIS**

**DATE ISSUED 04/28/2025** 

### SAMPLE DETAILS

SAMPLE NAME: ATF (S)

Concentrate, Product Inhalable

**CULTIVATOR / MANUFACTURER** 

**Business Name:** License Number:

Address:

SAMPLE DETAIL

**Batch Number:** 

Sample ID: 250423R005

**DISTRIBUTOR / TESTED FOR** 

Business Name: North Star Canna

License Number:

Address:

Date Collected: 04/23/2025

Date Received: 04/23/2025

Batch Size: Sample Size: Unit Mass: Serving Size:







Scan QR code to verify authenticity of results.

### **CANNABINOID ANALYSIS - SUMMARY**

Total THC: 83.423%

**Total CBD: Not Detected** 

Sum of Cannabinoids: 88.31%

Total Cannabinoids: 88.31%

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step: Total THC =  $\Delta^9$ -THC + (THCa (0.877)) Total CBD = CBD + (CBDa (0.877))

Sum of Cannabinoids =  $\Delta^9$ -THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ8-THC + CBL + CBN Total Cannabinoids =  $(\Delta^9$ -THC+0.877\*THCa) + (CBD+0.877\*CBDa) + (CBG+0.877\*CBGa) + (THCV+0.877\*THCVa) + (CBC+0.877\*CBCa) +

(CBDV+0.877\*CBDVa) +  $\Delta^8$ -THC + CBL + CBN

#### **SAFETY ANALYSIS - SUMMARY**

Pesticides: PASS

Microbiology (PCR): PASS

Mycotoxins: PASS

Microbiology (Plating): ND

Residual Solvents: PASS

Foreign Material: PASS

Heavy Metals: PASS

For quality assurance purposes. Not a Regulatory Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: California Code of Regulations Title 4 Division 19. Department of Cannabis Control Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT),  $\mu g/g = ppm, \mu g/kg = ppb,$  too numerous to count >250 cfu/plate (TNTC), colony-forming unit (cfu)

LQC verified by: Erik Anderson Job Title: Laboratory Assistant Date: 04/28/2025

Approved by: Josh Wurzer Title: Chief Compliance Officer Date: 04/28/2025



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# Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

**TOTAL THC: 83.423%**Total THC (Δ<sup>9</sup>-THC+0.877\*THCa)

TOTAL CBD: Not Detected

Total CBD (CBD+0.877\*CBDa)

**TOTAL CANNABINOIDS: 88.31%** 

 $\begin{array}{l} Total \ Cannabinoids \ (Total \ THC) + (Total \ CBD) + \\ (Total \ CBG) + (Total \ THCV) + (Total \ CBC) + \\ (Total \ CBDV) + \Delta^8 - THC + CBL + CBN \end{array}$ 

TOTAL CBG: 2.117%
Total CBG (CBG+0.877\*CBGa)

TOTAL THCV: 0.88%

Total THCV (THCV+0.877\*THCVa)

TOTAL CBC: 1.37%
Total CBC (CBC+0.877\*CBCa)

**TOTAL CBDV: ND** 

Total CBDV (CBDV+0.877\*CBDVa)

# **Pesticide Analysis**

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS).

\*GC-MS utilized where indicated.

**Method:** QSP 1212 - Analysis of Pesticides and Mycotoxins by LC-MS or QSP 1213 - Analysis of Pesticides by GC-MS

### **CANNABINOID TEST RESULTS - 04/25/2025**

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
∆ <sup>9</sup> -THC	0.06 / 0.26	±22.357	834.23	83.423
CBG	0.06 / 0.19	±0.650	21.17	2.117
СВС	0.2 / 0.5	±0.31	13.7	1.37
THCV	0.1 / 0.2	±0.34	8.8	0.88
CBN	0.1/0.3	±0.26	5.2	0.52
$\Delta^8$ -THC	0.1/0.4	N/A	ND	ND
THCa	0.05 / 0.14	N/A	ND	ND
THCVa	0.07 / 0.20	N/A	ND	ND
CBD	0.07 / 0.29	N/A	ND	ND
CBDa	0.02 / 0.19	N/A	ND	ND
CBDV	0.04 / 0.15	N/A	ND	ND
CBDVa	0.03 / 0.53	N/A	ND	ND
CBGa	0.1 / 0.2	N/A	ND	ND
CBL	0.06 / 0.24	N/A	ND	ND
CBCa	0.07 / 0.28	N/A	ND	ND
SUM OF CANNA	BINOIDS		883.1 mg/g	88.31%

### PESTICIDE TEST RESULTS - 04/28/2025 **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (μg/g)	RESULT
Abamectin	0.03 / 0.10	0.1	N/A	ND	PASS
Acephate	0.02 / 0.07	0.1	N/A	ND	PASS
Acequinocyl	0.02 / 0.07	0.1	N/A	ND	PASS
Acetamiprid	0.02 / 0.05	0.1	N/A	ND	PASS
Aldicarb	0.03 / 0.08	≥LOD	N/A	ND	PASS
Azoxystrobin	0.02 / 0.07	0.1	N/A	ND	PASS
Bifenazate	0.01/0.04	0.1	±0.003	0.06	PASS
Bifenthrin	0.02/0.05	3	±0.037	0.90	PASS
Boscalid	0.03 / 0.09	0.1	N/A	ND	PASS
Captan	0.19/0.57	0.7	N/A	ND	PASS
Carbaryl	0.02 / 0.06	0.5	N/A	ND	PASS
Carbofuran	0.02 / 0.05	≥LOD	N/A	ND	PASS
Chlorantraniliprole	0.04 / 0.12	10	N/A	ND	PASS

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DATE ISSUED 04/28/2025





# **Pesticide Analysis** Continued

### PESTICIDE TEST RESULTS - 04/28/2025 continued **⊘** PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (μg/g)	RESULT
Chlordane*	0.03 / 0.08	≥LOD	N/A	ND	PASS
Chlorfenapyr*	0.03 / 0.10	≥LOD	N/A	ND	PASS
Chlorpyrifos	0.02 / 0.06	≥LOD	N/A	ND	PASS
Clofentezine	0.03 / 0.09	0.1	N/A	ND	PASS
Coumaphos	0.02 / 0.07	≥LOD	N/A	ND	PASS
Cyfluthrin	0.12 / 0.38	2	N/A	ND	PASS
Cypermethrin	0.11/0.32	1	N/A	ND	PASS
Daminozide	0.02 / 0.07	≥LOD	N/A	ND	PASS
Diazinon	0.02 / 0.05	0.1	N/A	ND	PASS
Dichlorvos (DDVP)	0.03 / 0.09	≥LOD	N/A	ND	PASS
Dimethoate	0.03 / 0.08	≥LOD	N/A	ND	PASS
Dimethomorph	0.03 / 0.09	2	N/A	ND	PASS
Ethoprophos	0.03 / 0.10	≥LOD	N/A	ND	PASS
Etofenprox	0.02 / 0.06	≥LOD	N/A	ND	PASS
Etoxazole	0.02 / 0.06	0.1	N/A	ND	PASS
Fenhexamid	0.03 / 0.09	0.1	N/A	ND	PASS
Fenoxycarb	0.03 / 0.08	≥LOD	N/A	ND	PASS
Fenpyroximate	0.02 / 0.06	0.1	N/A	ND	PASS
Fipronil	0.03 / 0.08	≥LOD	N/A	ND	PASS
Flonicamid	0.03 / 0.10	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.10	0.1	N/A	ND	PASS
Hexythiazox	0.02 / 0.07	0.1	N/A	ND	PASS
lmazalil	0.02 / 0.06	≥LOD	N/A	ND	PASS
Imidacloprid	0.04 / 0.11	5	N/A	ND	PASS
Kresoxim-methyl	0.02/0.07	0.1	N/A	ND	PASS
Malathion	0.03/0.09	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.07	2	N/A	ND	PASS
Methiocarb	0.02 / 0.07	≥LOD	N/A	ND	PASS
Methomyl	0.03 / 0.10	1	N/A	ND	PASS
Mevinphos	0.03 / 0.09	≥LOD	N/A	ND	PASS
Myclobutanil	0.03 / 0.09	0.1	N/A	ND	PASS
Naled	0.02 / 0.07	0.1	N/A	ND	PASS
Oxamyl	0.04 / 0.11	0.5	N/A	ND	PASS
Paclobutrazol	0.02 / 0.05	≥LOD	N/A	ND	PASS
Parathion-methyl	0.03 / 0.10	≥LOD	N/A	ND	PASS
Pentachloronitro- benzene (Quintozene)*	0.03/0.09	0.1	N/A	ND	PASS
Permethrin	0.04 / 0.12	0.5	N/A	<loq< td=""><td>PASS</td></loq<>	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonyl Butoxide	0.02 / 0.07	3	N/A	<loq< td=""><td>PASS</td></loq<>	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.02 / 0.07	0.1	N/A	ND	PASS

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# Pesticide Analysis Continued

### PESTICIDE TEST RESULTS - 04/28/2025 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Propoxur	0.03 / 0.09	≥LOD	N/A	ND	PASS
Pyrethrins	0.04 / 0.12	0.5	N/A	ND	PASS
Pyridaben	0.02 / 0.07	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.07	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.02 / 0.06	0.1	N/A	ND	PASS
Spiroxamine	0.03 / 0.08	≥LOD	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiacloprid	0.03 / 0.10	≥LOD	N/A	ND	PASS
Thiamethoxam	0.03 / 0.10	5	N/A	ND	PASS
Trifloxystrobin	0.03 / 0.08	0.1	N/A	ND	PASS



# **Mycotoxin Analysis**

Mycotoxin analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS).

Method: QSP 1212 - Analysis of Pesticides and Mycotoxins by

### MYCOTOXIN TEST RESULTS - 04/25/2025 PASS

COMPOUND	LOD/LOQ (µg/kg)	ACTION LIMIT (µg/kg)	MEASUREMENT UNCERTAINTY (μg/kg)	RESULT (µg/kg)	RESULT
Aflatoxin B1	2.0 / 6.0		N/A	ND	
Aflatoxin B2	1.8 / 5.6		N/A	ND	
Aflatoxin G1	1.0 / 3.1		N/A	ND	
Aflatoxin G2	1.2 / 3.5		N/A	ND	
Ochratoxin A	6.3 / 19.2	20	N/A	ND	PASS
Total Aflatoxin		20		ND	PASS



# 🖟 🛴 Residual Solvents Analysis

Residual Solvent analysis utilizing gas chromatography-mass spectrometry (GC-MS).

Method: QSP 1204 - Analysis of Residual Solvents by GC-MS

### RESIDUAL SOLVENTS TEST RESULTS - 04/24/2025 **⊘ PASS**

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (μg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Propane	10/20	5000	N/A	ND	PASS
n-Butane	10/50	5000	N/A	ND	PASS
n-Pentane	20/50	5000	N/A	ND	PASS
n-Hexane	2/5	290	N/A	ND	PASS
n-Heptane	20/60	5000	N/A	ND	PASS
Benzene	0.03 / 0.09	1	N/A	ND	PASS
Toluene	7/21	890	N/A	ND	PASS
Total Xylenes	50 / 160	2170	N/A	ND	PASS
Methanol	50/200	3000	N/A	ND	PASS
Ethanol	20/50	5000	N/A	ND	PASS
2-Propanol (Isopropyl Alcohol)	10/40	5000	N/A	ND	PASS
Acetone	20/50	5000	N/A	ND	PASS
Ethyl Ether	20/50	5000	N/A	ND	PASS

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DATE ISSUED 04/28/2025





### RESIDUAL SOLVENTS TEST RESULTS - 04/24/2025 continued PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
Ethylene Oxide	0.3 / 0.8	1	N/A	ND	PASS
Ethyl Acetate	20/60	5000	N/A	ND	PASS
Chloroform	0.1 / 0.2	1	N/A	ND	PASS
Dichloromethane (Methylene Chloride)	0.3/0.9	1	N/A	ND	PASS
Trichloroethylene	0.1/0.3	1	N/A	ND	PASS
1,2-Dichloroethane	0.05 / 0.1	1	N/A	ND	PASS
Acetonitrile	2/7	410	N/A	ND	PASS



### **Heavy Metals Analysis**

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP 1160 - Analysis of Heavy Metals by ICP-MS

### HEAVY METALS TEST RESULTS - 04/25/2025 PASS

	COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (μg/g)	RESULT (µg/g)	RESULT
1	Arsenic	0.02 / 0.1	0.2	N/A	ND	PASS
(	Cadmium	0.02 / 0.05	0.2	N/A	ND	PASS
ı	Lead	0.04 / 0.1	0.5	N/A	ND	PASS
ı	Mercury	0.002 / 0.01	0.1	N/A	ND	PASS



## Microbiology Analysis

PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbiological contaminants.

Method: QSP 1221 - Analysis of Microbiological Contaminants

### MICROBIOLOGY TEST RESULTS (PCR) - 04/28/2025 PASS

COMPOUND	ACTION LIMIT (cfu/g)	RESULT (cfu/g)	RESULT
Bile-Tolerant Gram-Negative Bacteria		ND	
Salmonella spp.	Not Detected in 1g	ND	PASS
Shiga toxin-producing Escherichia coli	Not Detected in 1g	ND	PASS
Staphylococcus aureus		ND	

Analysis conducted by 3M<sup>™</sup> Petrifilm<sup>™</sup> and plate counts of microbiological contaminants.

 $\textbf{Method:} \ QSP\ 6794 - Plating\ with\ 3M^{TM}\ Petrifilm^{TM}$ 

### MICROBIOLOGY TEST RESULTS (PLATING) - 04/28/2025 ND

COMPOUND	(cfu/g)
Total Aerobic Bacteria	ND
Total Yeast and Mold	ND









Visual analysis includes, but is not limited to, sand, soil, cinders, dirt, mold, hair, insect fragments, and mammalian excreta.

**Method:** QSP 1226 - Analysis of Foreign Material in Cannabis and Cannabis Products

### FOREIGN MATERIAL TEST RESULTS - 04/23/2025 PASS

COMPOUND	ACTION LIMIT	RESULT (per 3 Grams)	RESULT
Hair Count	> 1 per 3 grams	0.0	PASS
Insect Fragment Count	> 1 per 3 grams	0.0	PASS
Mammalian Excreta Count	> 1 per 3 grams	0.0	PASS
Total Sample Area Covered by an Imbedded Foreign Material	>25%	None	PASS
Total Sample Area Covered by Mold	>25%	None	PASS
Total Sample Area Covered by Sand, Soil, Cinders, or Dirt	>25%	None	PASS