# Bia Diagnostics
**Laboratories**

**Bia Diagnostics**
Samples received Monday -
Friday, 10am to 5pm
Colchester, VT 05446

(802) 540-0148
https://www.biadiagnostics.com/
Lic# TLAB0029
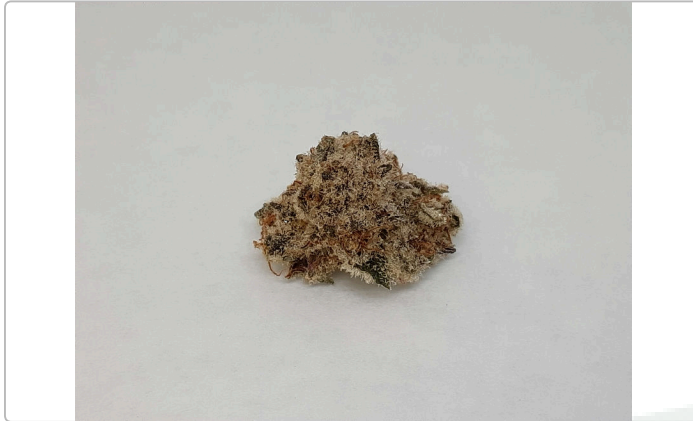
## Sub Zero

**Sample ID: BIA260116S0330**
Strain: HL-14
Harvest Lot:
Matrix: Plant
Type: Flower - Cured
Sample Size: 9.56 g
Lot#:

Produced:
Collected:
Received: 01/16/2026
Completed: 01/23/2026
Batch#:

Client
**Green Castle**
Lic. #
853 RT 15W
Johnson, VT 05656



## Summary

| Test | Date Tested | Result |
|---|---|---|
| Sample | | Complete |
| Cannabinoids | 01/20/2026 | Complete |
| Moisture | 01/16/2026 | 8.00% - Complete |
| Water Activity | 01/16/2026 | 0.350 aw - Complete |
| Terpenes | 01/19/2026 | Complete |
| Microbials | 01/22/2026 | Complete |

## Cannabinoids

Completed

| **30.53%** Total THC | **0.11%** Total CBD | **38.03%** Total Cannabinoids |
|---|---|---|

| Analyte | LOQ | Results | Results | Mass | Analyte | LOQ | Results | Results | Mass |
|---|---|---|---|---|---|---|---|---|---|
| | mg/g | % | mg/g | mg/serving | | mg/g | % | mg/g | mg/serving |
| CBDVa | 0.0003 | <LOQ | <LOQ | | CBCVa | 0.0003 | <LOQ | <LOQ | |
| CBDV | 0.0003 | <LOQ | <LOQ | | CBNa | 0.0003 | 0.09 | 0.9 | |
| CBDa | 0.0005 | 0.13 | 1.3 | | Δ9-THC | 0.0005 | 0.59 | 5.9 | |
| CBGa | 0.0005 | 1.10 | 11.0 | | Δ8-THC | 0.0003 | <LOQ | <LOQ | |
| CBG | 0.0005 | <LOQ | <LOQ | | Δ10-THC* | 0.0002 | 0.29 | 2.9 | |
| CBD | 0.0005 | <LOQ | <LOQ | | CBL | 0.0005 | <LOQ | <LOQ | |
| THCV | 0.0003 | <LOQ | <LOQ | | CBC | 0.0003 | <LOQ | <LOQ | |
| CBLV | 0.0003 | 0.10 | 1.0 | | THCa | 0.0005 | 34.13 | 341.3 | |
| CBCV | 0.0003 | <LOQ | <LOQ | | CBCa | 0.0006 | 0.30 | 3.0 | |
| THCVa | 0.0003 | 1.30 | 13.0 | | CBLa | 0.0005 | <LOQ | <LOQ | |
| CBN | 0.0005 | <LOQ | <LOQ | | **Total THC** | | 30.53 | 305.26 | |
| | | | | | **Total CBD** | | 0.11 | 1.11 | |
| | | | | | **Total** | | 38.03 | 380.29 | 0.00 |

Analyst: 052
Cannabinoids Methodology: High Performance Liquid Chromatography (HPLC) using PerkinElmer FLEXAR™ with Photo Diode Array Detector (PDA)
Total CBD and total THC are calculated values, to account for assumed decarboxylation from the acid form (THCA or CBDA) to the neutral form, causing weight loss of the acid group. These values are calculated as follows:
TotalTHC=(THCAx0.877)+Δ9-THC
Total CBD = (CBDA x 0.877) + CBD Reagent
Blanks: < LOQs for all analytes
LOQ = The lowest quantity that this method can reliably detect. Any cannabinoid that was not detected is assumed to be less than the stated LOQ (<LOQ).
All results reflect dry weight of material, based on % moisture of the sample.
Measurement of Uncertainty (MU): the parameter, associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to measurement. Δ9-THC MU = ±0.005% Total THC MU = ±0.007%
All other cannabinoid MU values are available upon request.
All moisture and water activity analysis is determined by dewpoint measurement using an AQUALAB water activity meter.
*The result is the sum of delta-10 isomers.

*Luke E-m*
Luke Emerson-Mason
Laboratory Director
01/23/2026

This report shall not be reproduced except in full without approval of the laboratory. This is to provide assurance that parts of a report are not taken out of context. All results apply to this sample as received.

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QA Testing

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![Bia Diagnostics Laboratories]

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## Terpenes

Completed

| Analyte | LOQ mg/g | Results mg/g | Results % |
|---|---|---|---|
| Limonene | 0.010 | 2.663 | 0.266 |
| β-Myrcene | 0.010 | 2.379 | 0.238 |
| Ocimene | 0.010 | 2.224 | 0.222 |
| β-Caryophyllene | 0.010 | 1.638 | 0.164 |
| Linalool | 0.010 | 1.384 | 0.138 |
| β-Pinene | 0.010 | 1.043 | 0.104 |
| α-Humulene | 0.010 | 0.755 | 0.076 |
| α-Pinene | 0.010 | 0.683 | 0.068 |
| Camphene | 0.010 | 0.131 | 0.013 |
| α-Bisabolol | 0.010 | 0.022 | 0.002 |
| γ-Terpinene | 0.010 | 0.015 | 0.001 |
| α-Terpinene | 0.010 | 0.012 | 0.001 |
| 3-Carene | 0.010 | <LOQ | <LOQ |
| Caryophyllene Oxide | 0.010 | <LOQ | <LOQ |
| cis-Nerolidol | 0.010 | <LOQ | <LOQ |
| Eucalyptol | 0.010 | <LOQ | <LOQ |
| Geraniol | 0.010 | <LOQ | <LOQ |
| Guaiol | 0.010 | <LOQ | <LOQ |
| Isopulegol | 0.010 | <LOQ | <LOQ |
| p-Cymene | 0.010 | <LOQ | <LOQ |
| Terpinolene | 0.010 | <LOQ | <LOQ |
| trans-Nerolidol | 0.010 | <LOQ | <LOQ |
| **Total** | | **12.949** | **1.295** |

## Primary Aromas

| Orange | Hops | Earthy | Cinnamon | Lavender |
|---|---|---|---|---|

Analyst: 063

LOQ = The lowest quantity this method can reliably detect. Any terpene that was not detected is assumed to be less than the stated LOQ (<LOQ).

Terpene Methodology: Headspace Sampler, Gas Chromatography-Mass Spectrometry (GC-MS), using Perkin Elmer Clarus® SQ8 GC MS

Reagent Blanks: < LOQs for all analytes

All results reflect dry weight of material, based on % moisture of the sample.

All moisture and water activity analysis is determined by dewpoint measurement using an AQUALAB water activity meter.

Luke E-m
Luke Emerson-Mason
Laboratory Director
01/23/2026

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## Pathogens

Completed

| Pathogens | LOD | Results |
|---|---|---|
| | CFU/g | CFU/g |
| Aspergillus | 5 | Not Detected |
| Shiga Toxin E. Coli | 5 | Not Detected |
| Salmonella SPP | 5 | Not Detected |

Analyst: 018
Test Methodology: Bio-Rad IQ-Check PCR Kits
cfu/g = colony forming units per gram
LOD = The lowest quantity that this method can reliably detect. Any microbial growth that was not detected is assumed to be less than the stated LOD (<LOD).
Reagent Blanks: <LOD for all analytes

Luke Emerson-Mason
Laboratory Director
01/23/2026

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