



261 Mountain View Dr  
 Colchester, VT 05446  
 License #: TLAB0030  
 802-767-7256  
 info@onwardanalytics.biz

# Certificate of Analysis

**Client Name:** Craft Cannabis of Vermont LLC  
**License Number:** SCLT0038 MANU0082

**Sample ID:** VT7110  
**Sample Name:** Jokerz Rootbeer  
**Sample Lot:** HL-SCLT0038-10-JRB  
**Sample Matrix:** Flower  
**Date Received:** 2/1/2024  
**Date Reported:** 2/8/2024  
**Date Tested:** 2/5/2024



Total Cannabinoids		
	%	mg/g
<b>Total THC:</b>	<b>25.641</b>	<b>256.407</b>
<b>Total CBD:</b>	<b>--</b>	<b>--</b>
<b>Total Cannabinoids:</b>	<b>31.267</b>	<b>312.670</b>

**Total theoretical CBD % = (CBD%) + (CBDA% \* 0.877)**  
**Total theoretical THC % = (delta-9-THC%) + (THCA% \* 0.877)**

## Potency

Standard potency analysis utilizing High Performance Liquid Chromatography (HPLC; SOP-024-OA) | Test ID: #20889

Analyte	% (Dry)	mg/g (Dry)	%	mg/g	LOD (mg/g)	LOQ (mg/g)
CBC	ND	ND	ND	ND	0.0003	0.0040
CBCA	0.584	5.84	0.5243	5.243	0.0002	0.0040
CBD	< LOQ	< LOQ	< LOQ	< LOQ	0.0008	0.0040
CBDA	ND	ND	ND	ND	0.0002	0.0040
CBDV	ND	ND	ND	ND	0.0008	0.0040
CBDVA	ND	ND	ND	ND	0.0001	0.0040
CBG	< LOQ	< LOQ	< LOQ	< LOQ	0.0009	0.0040
CBGA	1.5136	15.136	1.3589	13.589	0.0001	0.0040
CBN	ND	ND	ND	ND	0.0004	0.0040
CBNA	ND	ND	ND	ND	0.0002	0.0040
D8 THC	ND	ND	ND	ND	0.0012	0.0040
D9 THC	0.4811	4.811	0.4319	4.319	0.0016	0.0049
D10 THC	ND	ND	ND	ND	0.0004	0.0040
THCA	28.6883	286.883	25.7564	257.564	0.0002	0.0040
THCV	ND	ND	ND	ND	0.0016	0.0049
THCVA	< LOQ	< LOQ	< LOQ	< LOQ	0.0002	0.0040

## Moisture & Water Activity PASS

Water Activity and Moisture Content Analysis (SOP-202-OA) | Test ID: #20890

Analyte	Result (%)	Limit	Pass/Fail
Moisture	10.22	13.00	
Water Activity	0.44	0.65	PASS

Callie Chapman  
 Lab Director  
 2/8/2024

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**License Number:** SCLT0038 MANU0082

**Sample ID:** VT7110  
**Sample Name:** Jokerz Rootbeer  
**Sample Lot:** HL-SCLT0038-10-JRB  
**Sample Matrix:** Flower  
**Date Received:** 2/1/2024  
**Date Reported:** 2/12/2024  
**Date Tested:** 2/2/2024



## Pathogens PASS

Microbiological screening utilizing qPCR (SOP-204-OA) | Test ID: #20891

Analyte	Result	Pass/Fail
A. Fumigatus	None Detected	PASS
A. Niger	None Detected	PASS
A. Flavus	None Detected	PASS
A. Terreus	None Detected	PASS
STEC	None Detected	PASS
Salmonella	None Detected	PASS

*Holly Heimsath*

Holly Heimsath  
 QA Manager  
 2/12/2024

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# Certificate of Analysis

**Client Name:** Craft Cannabis of Vermont LLC  
**License Number:** SCLT0038 MANU0082

**Sample ID:** VT7112  
**Sample Name:** HL-10-COMPOSITE  
**Sample Lot:** HL-SCLT0038-10-PET,JRB,OG  
**Sample Matrix:** Flower  
**Date Received:** 2/1/2024  
**Date Reported:** 2/8/2024  
**Date Tested:** 2/6/2024



## Pesticides Pass

Residual pesticide analysis utilizing Liquid Chromatography – Mass Spectrometry (LC-MSMS; SOP-070-OA) - **Limit units: ppm** | Test ID: #20895

Analyte	Pass/Fail	Result (ppm)	Limit	LOD (ppm)	LOQ (ppm)
Abamectin B1a	Pass	ND	0.10000	0.00156	0.01560
Abamectin B1b	Pass	ND	0.10000	0.00006	0.00060
Acephate	Pass	ND	0.10000	0.00168	0.01680
Acequinocyl	Pass	ND	0.10000	0.00167	0.01670
Azoxystrobin	Pass	ND	0.10000	0.00168	0.01680
Bifenazate	Pass	ND	0.10000	0.00167	0.01670
Bifenthrin	Pass	ND	3.00000	0.00167	0.01670
Carbaryl	Pass	ND	0.50000	0.00167	0.01670
Chlorpyrifos	Pass	ND	0.04000	0.00167	0.01670
Cypermethrin	Pass	ND	1.00000	0.00168	0.01680
Etoxazole	Pass	ND	0.10000	0.00168	0.01680
Imazalil	Pass	ND	0.04000	0.00167	0.01670
Imidacloprid	Pass	ND	5.00000	0.00166	0.01660
Myclobutanil	Pass	ND	0.10000	0.00167	0.01670
Spinosyn A	Pass	ND	0.10000	0.00120	0.01199
Spinosyn D	Pass	ND	0.10000	0.00042	0.00415
Pyrethrins	Pass	ND	0.50000	0.00022 0.00498 *	0.00072 0.00015 *

\* Pyrethrins action limit represents sum of isomers I & II

Callie Chapman  
 Lab Director  
 2/8/2024

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**Onward Analytics**

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**Preface:**

How to read qPCR data:

- SCCG correlates to Cannabis DNA. It is used as an internal control. When testing flower, SCCG DNA is not added since it is contained within the plant. This internal control serves to assure that any DNA found on the sample has become accessible. SCCG values  $\leq 40$  indicate the assay passes laboratory quality control, while a *No Cq* result renders the assay indeterminate.
- In pathogenic tests, *No Cq* is equivalent to a non-detect. A value  $\leq 40$  indicates presence.

**Introduction:**

Onward Analytics tested the following samples from **Craft Cannabis of Vermont** for pathogens:

**Petrol 592 (lot HL-SCLT0038-10-PET)**

**Jokerz Rootbeer (lot HL-SCLT0038-10-JRB)**

**Old Growth (lot HL-SCLT0038-10-OG)**

OA's validated method came back with inconclusive results. After discussion with the cultivator, OA found that Doctor Zymes (main ingredient: citric acid) was used early in cultivation. This information corroborates OA's theory that Doctor Zymes products interfere with pathogen DNA analysis, since even when internal control DNA (sccg) was spiked in additionally, the result was still indeterminate.

Well Name	fumigatus	niger	flavus	terreus	Internal Control (sccg)	stec	sal	Internal Control (sccg)
24hr, spike w/ internal control DNA	No Cq	No Cq	No Cq	No Cq	No Cq	No Cq	No Cq	No Cq

**R&D Data:**

From previous feasibility studies, OA has determined that pre-rinsing sample before incubation will alleviate interference. Each lot was pre-rinsed thrice with TSB (tryptic soy broth) before entering OA's certified method of a 24hr incubation followed by species-specific qPCR analysis.

Well Name	fumigatus	niger	flavus	terreus	Internal Control (sccg)	stec	sal	Internal Control (sccg)
Petrol 592	No Cq	No Cq	No Cq	No Cq	30.66	No Cq	No Cq	30.77
Jokerz Rootbeer	No Cq	No Cq	No Cq	No Cq	27.71	No Cq	No Cq	27.70
Old Growth	No Cq	No Cq	No Cq	No Cq	25.74	No Cq	No Cq	26.31

**Conclusion:**

Though Onward Analytics was unable to return a conclusive result from simply using the validated method, the R&D study performed allowed the SCCG DNA to be extracted, purified, and detected. It is Onward Analytics' technical opinion that if pathogenic DNA was present in the sample, it too was likely to have been extracted, purified and detected. These R&D data suggest that these samples of Craft Cannabis of Vermont's samples, Petrol 592 (lot HL-SCLT0038-10-PET), Jokerz Rootbeer (lot HL-SCLT0038-10-JRB), and Old Growth (lot HL-SCLT0038-10-OG) do not contain *Aspergillus* (fumigatus, niger, flavus, terreus), shiga toxin-producing *E. coli*, nor salmonella pathogenic DNA.