

# Certificate of Analysis



DanOdan Grassworks

Daniel Stoops

Portland, OR, .

**Report Date**  
**Report Status**  
**Receipt Date**  
**Receipt Condition**  
**Storage Condition**  
**Sample Type**  
**Sample ID**

28Apr2016

Final

20Apr2016

Ambient

0-6 °C

Canna Extract / Concentrate (Liquid)

16000907

**Sample Name**  
**Batch #**

Cannabutter  
SG-07-BUT

## Cannabinoids

| Analysis                                      | Result, mg/g | LOQ, mg/g | Analysis Date |
|---|--------------|-----------|---------------|
| Total Cannabinoids (Calculated)               |              |           |               |
| Total CBD = CBD + 0.877 x CBDA                | <LOQ         |           |               |
| Total THC = THC + 0.877 x THCA                | 4.21         |           |               |
| Cannabinoids (By weight)                      |              |           |               |
| Cannabidiol (CBD)                             | <LOQ         | 0.46      | 26Apr2016     |
| Cannabidiolic Acid (CBDA)                     | <LOQ         | 0.46      | 26Apr2016     |
| $\Delta$ 9-Tetrahydrocannabinol (THC)         | 4.21         | 0.46      | 26Apr2016     |
| $\Delta$ 9-Tetrahydrocannabinolic Acid (THCA) | <LOQ         | 0.46      | 26Apr2016     |

## Microbiology

| Analysis       | Result     | LOQ       | Analysis Date |
|----------------|------------|-----------|---------------|
| Yeast and Mold | <LOQ cfu/g | 100 cfu/g | 25Apr2016     |

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## Pesticide Residues

| Analysis                        | Class | Result, ppm | LOQ, ppm | Analysis Date |
|---------------------------------|-------|-------------|----------|---------------|
| Bifenthrin                      | PYR   | <LOQ        | 0.1      | 27Apr2016     |
| Carbofuran                      | CARB  | <LOQ        | 0.1      | 27Apr2016     |
| Chlordane, cis-                 | OC    | <LOQ        | 0.1      | 27Apr2016     |
| Chlordane, trans-               | OC    | <LOQ        | 0.1      | 27Apr2016     |
| Chlorpyrifos                    | OP    | <LOQ        | 0.1      | 27Apr2016     |
| DDT                             | OC    | <LOQ        | 0.2      | 27Apr2016     |
| Diazinon                        | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Disulfoton                      | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Endrin                          | OC    | <LOQ        | 0.1      | 27Apr2016     |
| Ethoprophos                     | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Fenchlorphos                    | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Fenthion                        | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Heptachlor                      | OC    | <LOQ        | 0.1      | 27Apr2016     |
| Heptachlor exo-epoxide          | OC    | <LOQ        | 0.1      | 27Apr2016     |
| $\alpha$ -Hexachlorocyclohexane | OC    | <LOQ        | 0.1      | 27Apr2016     |
| Methiocarb                      | CARB  | <LOQ        | 0.1      | 27Apr2016     |
| Permethrin I                    | PYR   | <LOQ        | 0.2      | 27Apr2016     |
| Permethrin II                   | PYR   | <LOQ        | 0.2      | 27Apr2016     |
| Phorate                         | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Prothiofos                      | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Sulprofos                       | OP    | <LOQ        | 0.1      | 27Apr2016     |
| Tefluthrin, cis-                | PYR   | <LOQ        | 0.1      | 27Apr2016     |
| Transfluthrin                   | PYR   | <LOQ        | 0.1      | 27Apr2016     |
| Trichloronat                    | OP    | <LOQ        | 0.1      | 27Apr2016     |

Classes: CARB - Carbamate, PYR - Pyrethroid, OC - Organochlorine, OP- Organophosphate

## Quality Control Summary

|   | <b>Result</b> |
|---|---------------|
| <b>Cannabinoids (SOP3007)</b>                           |               |
| Calibration Linearity $r^2 \geq 0.995$                  | <i>Pass</i>   |
| Calibration Verification $\pm 10\%$                     | <i>Pass</i>   |
| Method Blank < LOQ                                      | <i>Pass</i>   |
| Laboratory Control Sample (LCS) Recovery 80-120%        | <i>Pass</i>   |
| LCS Duplicate (LCSD) Recovery 80-120%                   | <i>Pass</i>   |
| LCS/LCSD Relative Percent Difference $\leq 20\%$        | <i>Pass</i>   |
| <b>Pesticide Residues (SOP3013)</b>                     | <b>Result</b> |
| Calibration Linearity $r^2 \geq 0.995$                  | <i>Pass</i>   |
| Calibration Verification $\pm 10\%$                     | <i>Pass</i>   |
| Method Blank < LOQ                                      | <i>Pass</i>   |
| <b>Yeast and Mold (SOP4006)</b>                         | <b>Result</b> |
| Blank Before - No Growth                                | <i>Pass</i>   |
| Replicate Relative Percent Difference $\leq 20\%$ (log) | <i>Pass</i>   |
| Duplicate Count Relative Percent Difference $\leq 10\%$ | <i>Pass</i>   |
| Blank After - No Growth                                 | <i>Pass</i>   |

## Method References

## Testing Location

|   |                             |
|---|-----------------------------|
| <b>Cannabinoids (SOP3007)</b>   | <b>Cascadia Labs - Bend</b> |
| De Backer, et al. (2009). Innovative development and validation of an HPLC/DAD method for the qualitative and quantitative determination of major cannabinoids in cannabis plant material.<br>Journal of Chromatography B Analytical Technologies in the Biomedical and Life Sciences, 877(32), 4115-4124. (Modified) |                             |
| <b>Pesticides (SOP3013)</b>   | <b>Cascadia Labs - Bend</b> |
| Official Methods of Analysis of AOAC INTERNATIONAL, AOAC INTERNATIONAL. Gaithersburg, MD, Official Method 2007.01: Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, Gas Chromatography/Mass Spectrometry and Liquid Chromatography/Tandem Mass Spectrometry            |                             |
| <b>Yeast and Mold (SOP4006)</b>   | <b>Cascadia Labs - Bend</b> |
| Official Methods of Analysis of AOAC INTERNATIONAL, AOAC INTERNATIONAL. Gaithersburg, MD, Official Method 2002.11: Detection and Quantification of Yeasts and Molds in Foods, SimPlate Yeast and Mold-Color Indicator (Y&M-CI) Method   |                             |

## Testing Locations

### **Cascadia Labs - Bend**

20340 Empire Ave Ste E-1

Bend, OR 97703

(541) 213-2315

## Authorization

### **Report Issued By**

Julie Austin

Operations Manager

This report is intended to comply with Current Oregon Administrative Rules: Chapter 333 Division 7; Chapter 333 Division 8; Chapter 333 Division 64. These methods are not accredited by ORELAP.

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