



This report cannot be used for ODA, OHA or OLCC compliance requirements.

**Product identity:** CBD Crunch #190770  
**Laboratory ID:** 19-003167-0003

**Client/Metric ID:** .  
**Sample Date:**

**Summary**

**Potency:**

Analyte	Result (%)		
CBD	0.187		
CBD-A	0.0239		
		<ul style="list-style-type: none"> <li>● CBD</li> <li>● CBD-A</li> </ul>	
			CBD-Total 0.208% ----- THC-Total < 0.006% (Reported in percent of total sample)



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**Customer:** Sovereign Medicinals Inc  
4207 SE Woodstock Blvd #507  
Portland Oregon 97206  
United States

**Product identity:** CBD Crunch #190770

**Client/Metric ID:** .

**Sample Date:**

**Laboratory ID:** 19-003167-0003

**Relinquished by:** Tait Christensen

**Temp:** 15.9 °C

**Serving Size #1:** 52.96 g

### Sample Results

Potency	Method J AOAC 2015 V98-6			Units %	Batch 1902576	Analyze 03/27/19 04:04 AM
Analyte	As Received	Dry weight	LOQ	Notes	<ul style="list-style-type: none"> <li>● CBD</li> <li>● CBD-A</li> </ul>	
CBC†	< LOQ		0.0032			
CBC-A†	< LOQ		0.0032			
CBC-Total†	< LOQ		0.0063			
CBD	0.187		0.0032			
CBD-A	0.0239		0.0032			
CBD-Total	0.208		0.0063			
CBDV†	< LOQ		0.0032			
CBDV-A†	< LOQ		0.0032			
CBDV-Total†	< LOQ		0.0062			
CBG†	< LOQ		0.0032			
CBG-A†	< LOQ		0.0032			
CBG-Total†	< LOQ		0.0063			
CBL†	< LOQ		0.0032			
CBN	< LOQ		0.0032			
Δ8-THC†	< LOQ		0.0032			
Δ9-THC	< LOQ		0.0032			
THC-A	< LOQ		0.0032			
THC-Total	< LOQ		0.0063			
THCV†	< LOQ		0.0032			
THCV-A†	< LOQ		0.0032			
THCV-Total†	< LOQ		0.0062			

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Pixis quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be kept a maximum of 15 days from the report date unless prior arrangements have been made.



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**Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

**Units of Measure**

g = Gram

% = Percentage of sample

% wt =  $\mu\text{g/g}$  divided by 10,000

Approved Signatory

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Derrick Tanner  
General Manager



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**Laboratory Quality Control Results**

J AOAC 2015 V98-6		Batch ID: 1902576							
Laboratory Control Sample									
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes		
CBDV-A	0.00974	0.01	%	97.4	85 - 115	Acceptable			
CBDV	0.0102	0.01	%	102	85 - 115	Acceptable			
CBD-A	0.00950	0.01	%	95.0	85 - 115	Acceptable			
CBG-A	0.00986	0.01	%	98.6	85 - 115	Acceptable			
CBG	0.0103	0.01	%	103	85 - 115	Acceptable			
CBD	0.0101	0.01	%	101	85 - 115	Acceptable			
THCV	0.0100	0.01	%	100	85 - 115	Acceptable			
THCVA	0.0096	0.01	%	96.0	85 - 115	Acceptable			
CBN	0.0108	0.01	%	108	85 - 115	Acceptable			
THC	0.0108	0.01	%	108	85 - 115	Acceptable			
D8THC	0.00946	0.01	%	94.6	85 - 115	Acceptable			
CBL	0.00987	0.01	%	98.7	85 - 115	Acceptable			
CBC	0.0105	0.01	%	105	85 - 115	Acceptable			
THCA	0.0101	0.01	%	101	85 - 115	Acceptable			
CBCA	0.00934	0.01	%	93.4	85 - 115	Acceptable			

**Method Blank**

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDV-A	ND	0.003	%	< 0.003	Acceptable	
CBDV	ND	0.003	%	< 0.003	Acceptable	
CBD-A	ND	0.003	%	< 0.003	Acceptable	
CBG-A	ND	0.003	%	< 0.003	Acceptable	
CBG	ND	0.003	%	< 0.003	Acceptable	
CBD	ND	0.003	%	< 0.003	Acceptable	
THCV	ND	0.003	%	< 0.003	Acceptable	
THCVA	ND	0.003	%	< 0.003	Acceptable	
CBN	ND	0.003	%	< 0.003	Acceptable	
THC	ND	0.003	%	< 0.003	Acceptable	
D8THC	ND	0.003	%	< 0.003	Acceptable	
CBL	ND	0.003	%	< 0.003	Acceptable	
CBC	ND	0.003	%	< 0.003	Acceptable	
THCA	ND	0.003	%	< 0.003	Acceptable	
CBCA	ND	0.003	%	< 0.003	Acceptable	

**Abbreviations**

ND - None Detected at or above MRL  
RPD - Relative Percent Difference  
LOQ - Limit of Quantitation

**Units of Measure:**

% - Percent



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J AOAC 2015 V98-6		Batch ID: 1902576						
Sample Duplicate		Sample ID: 19-003137-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDV-A	ND	ND	0.003	%	0	< 20	Acceptable	
CBDV	0.0265	0.0262	0.003	%	1.14	< 20	Acceptable	
CBD-A	ND	ND	0.003	%	0	< 20	Acceptable	
CBG-A	ND	ND	0.003	%	0	< 20	Acceptable	
CBG	0.0807	0.0783	0.003	%	3.02	< 20	Acceptable	
CBD	5.83	5.79	0.003	%	0.688	< 20	Acceptable	
THCV	ND	ND	0.003	%	0	< 20	Acceptable	
THCVA	ND	ND	0.003	%	0	< 20	Acceptable	
CBN	0.114	0.111	0.003	%	2.67	< 20	Acceptable	
THC	0.132	0.127	0.003	%	3.86	< 20	Acceptable	
D8THC	ND	ND	0.003	%	0	< 20	Acceptable	
CBL	ND	ND	0.003	%	0	< 20	Acceptable	
CBC	0.327	0.318	0.003	%	2.79	< 20	Acceptable	
THCA	ND	ND	0.003	%	0	< 20	Acceptable	
CBCA	ND	ND	0.003	%	0	< 20	Acceptable	

**Abbreviations**

ND - None Detected at or above MRL  
RPD - Relative Percent Difference  
LOQ - Limit of Quantitation

**Units of Measure:**

% - Percent



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Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitaion level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.



12423 NE Whitaker Way  
Portland, OR 97230  
503-254-1794



**Job Number:** 19-003167  
**Report Number:** 19-003167-00  
**Report Date:** 04/02/2019  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 03/25/19 14:50

This report cannot be used for ODA, OHA or OLCC compliance requirements.

**Product identity:** CBD Crunch #190770  
**Laboratory ID:** 19-003167-0007

**Client/Metric ID:** .  
**Sample Date:**

### Summary

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**Microbiology:**

Less than LOQ for all analytes.



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United States

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**Client/Metric ID:** .

**Sample Date:**

**Laboratory ID:** 19-003167-0007

**Relinquished by:** Tait Christensen

**Temp:** 15.9 °C

### Sample Results

Microbiology								
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	1902480	03/27/19	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	1902480	03/27/19	AOAC 991.14 (Petrifilm)	X
Mold	< LOQ		cfu/g	10	1902479	03/29/19	AOAC 997.02 (Petrifilm)	X
Yeast	< LOQ		cfu/g	10	1902479	03/29/19	AOAC 997.02 (Petrifilm)	X





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**Limit(s) of Quantitation (LOQ):** The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

**Units of Measure**

cfu/g = Colony forming units per gram

% wt =  $\mu\text{g/g}$  divided by 10,000

**Glossary of Qualifiers**

X: Not ORELAP accredited.

Approved Signatory

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Derrick Tanner  
General Manager



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Q5	Spike results above calibration curve.
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