

# CERTIFICATE OF ANALYSIS



**JuniperAnalytics**  
INTEGRITY AND ACCURACY IN EVERY STEP

Juniper Analytics, LLC  
1334 NE 2nd Street, Bend, OR, 97701  
541.382.3796  
ORELAP: 4101 / OLCC: 010-10035537931

Client Name:	Bio-Reigns Inc.
Contact Info:	Mark
Sample Type:	Extract
External Batch ID:	2690
Harvest/Prod. Date:	11/4/2019
Sample ID:	BSD
METRC ID:	Industrial Hemp
Juniper Batch #:	19JA2920.01_A-B Composite
Intake Date:	11/5/2019

Batch sampled per  
OAR 333-064-0100



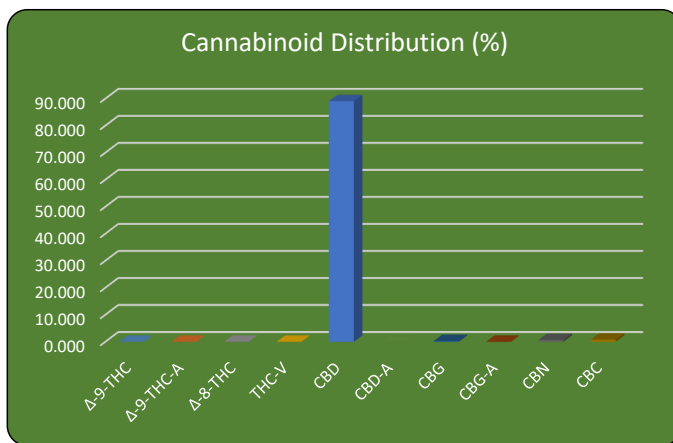
## Potency Analysis (Oregon Compliance Standard OAR 333-007-0430)

ANALYSIS DATE: 11/6/2019

Instrument: HPLC/DAD

Method: JA-Potency-Proprietary

Compound	Weight (%)	Concentration (mg/g)	LOQ (mg/g)
Δ-9-THC	<LOQ	<LOQ	1.00
Δ-9-THC-A	<LOQ	<LOQ	1.00
Δ-8-THC	<LOQ	<LOQ	1.00
THC-V	<LOQ	<LOQ	1.00
CBD	89.062	890.62	1.00
CBD-A	<LOQ	<LOQ	1.00
CBG	0.278	2.78	1.00
CBG-A	<LOQ	<LOQ	1.00
CBN	0.671	6.71	1.00
CBC	0.804	8.04	1.00



TOTAL THC/CBD	Weight (%)	Conc (mg/g)	RPD
% THC Total =	<LOQ	<LOQ	N/A
%THC <sub>Total</sub> = (THC-A * 0.877) + Δ9THC			
% CBD Total =	89.062	890.62	N/A
%CBD <sub>Total</sub> = (CBD-A * 0.877) + CBD			

## Residual Solvent Analysis (Oregon Compliance Standard OAR 333-007-0410)

ANALYSIS DATE:

Not Tested

Instrument: GC/MS

Method: USP 467 - Modified

Solvent	Result (ppm)	Action Level / LOQ (ppm)
1,4-Dioxane		380 / 100
2-Butanol		5000 / 500
2-Ethoxyethanol		160 / 100
2-Propanol (IPA)		5000 / 500
Acetone		5000 / 500
Acetonitrile		410 / 100
Benzene		2 / 1
Cumene		70 / 50
Cyclohexane		3880 / 500
Dichloromethane		600 / 100
Ethyl acetate		5000 / 500
Ethyl ether		5000 / 500
Ethylene glycol		620 / 300
Ethylene oxide		50 / 10
Heptane		5000 / 500
Isopropyl acetate		5000 / 500
Methanol		3000 / 500
Propane		5000 / 500
Tetrahydrofuran		720 / 100
Toluene		890 / 100

Solvent	Result (ppm)	Action Level / LOQ (ppm)
<b>Pentanes;</b>		5000 / 500
-n-pentane		**
-iso-pentane		**
-neo-pentane		**
<b>Butanes;</b>		5000 / 500
-n-butane		**
-iso-butane		**
<b>Hexanes;</b>		290 / 50
-n-hexane		**
-2-methylpentane		**
-3-methylpentane		**
-2,2-dimethylbutane		**
-2,3-dimethylbutane		**
<b>Xylenes;</b>		2170 / 300
-1,2-dimethylbenzene		**
-1,3-dimethylbenzene		**
-1,4-dimethylbenzene		**
-Ethyl benzene		**
**RPD calculated for combined results		

Residual Solvents N/A

Tentatively Identified Compounds: N/A

<LOQ - Less than the Limit of Quantification

\*\*\*Largest hit reported to appropriate governing body; RPD only calculated on samples where the average result is above 50% of the action level.

## Approval

QA Review

Report Date: 11/6/2019



Juniper Batch #: 19JA2920.01\_A-B Composite  
 Intake Date: 11/5/2019

**Pesticide Analysis (Oregon Compliance Standard OAR 333-008-1190)**

ANALYSIS DATE: Not Tested			Instrument: LC/MS/MS		Method: AOAC 2007.1 <sup>modified</sup>	
Pesticide	Result (ppm)	Action Level / LOQ (ppm)	Pesticide	Result (ppm)	Action Level / LOQ (ppm)	
Abamectin		0.5 / 0.25	Imazalil		0.2 / 0.10	
Acephate		0.4 / 0.20	Imidacloprid		0.4 / 0.20	
Acequinocyl		2.0 / 1.00	Kresoxim-methyl		0.4 / 0.20	
Acetamiprid		0.2 / 0.10	Malathion		0.2 / 0.10	
Aldicarb		0.4 / 0.20	Metalaxyl		0.2 / 0.10	
Azoxystrobin		0.2 / 0.10	Methiocarb		0.2 / 0.10	
Bifenazate		0.2 / 0.10	Methomyl		0.4 / 0.20	
Bifenthrin		0.2 / 0.10	Methyl Parathion		0.2 / 0.10	
Boscalid		0.4 / 0.20	MGK-264		0.2 / 0.10	
Carbaryl		0.2 / 0.10	Myclobutanil		0.2 / 0.10	
Carbofuran		0.2 / 0.10	Naled		0.5 / 0.25	
Chlorantraniliprole		0.2 / 0.10	Oxamyl		1.0 / 0.50	
Chlorfenapyr		1.0 / 0.50	Paclobutrazol		0.4 / 0.20	
Chlorpyrifos		0.2 / 0.10	Permethrins		0.2 / 0.10	
Clofentezine		0.2 / 0.10	Phosmet		0.2 / 0.10	
Cyfluthrin		1.0 / 0.50	Piperonyl butoxide		2.0 / 1.00	
Cypermethrin		1.0 / 0.50	Prallethrin		0.2 / 0.10	
Daminozide		1.0 / 0.50	Propiconazole		0.4 / 0.20	
DDVP (Dichlorvos)		1.0 / 0.50	Propoxur		0.2 / 0.10	
Diazinon		0.2 / 0.10	Pyrethrins		1.0 / 0.50	
Dimethoate		0.2 / 0.10	Pyridaben		0.2 / 0.10	
Ethoprophos		0.2 / 0.10	Spinosad		0.2 / 0.10	
Etofenprox		0.4 / 0.20	Spiromesifen		0.2 / 0.10	
Etoxazole		0.2 / 0.10	Spirotetramat		0.2 / 0.10	
Fenoxycarb		0.2 / 0.10	Spiroxamine		0.4 / 0.20	
Fenpyroximate		0.4 / 0.20	Tebuconazole		0.4 / 0.20	
Fipronil		0.4 / 0.20	Thiacloprid		0.2 / 0.10	
Flonicamid		1.0 / 0.50	Thiamethoxam		0.2 / 0.10	
Fludioxonil		0.4 / 0.20	Trifloxystrobin		0.2 / 0.10	
Hexythiazox		1.0 / 0.50				
<b>Pesticide Screen</b>	<b>N/A</b>					

LOQ= Limit of Quantification

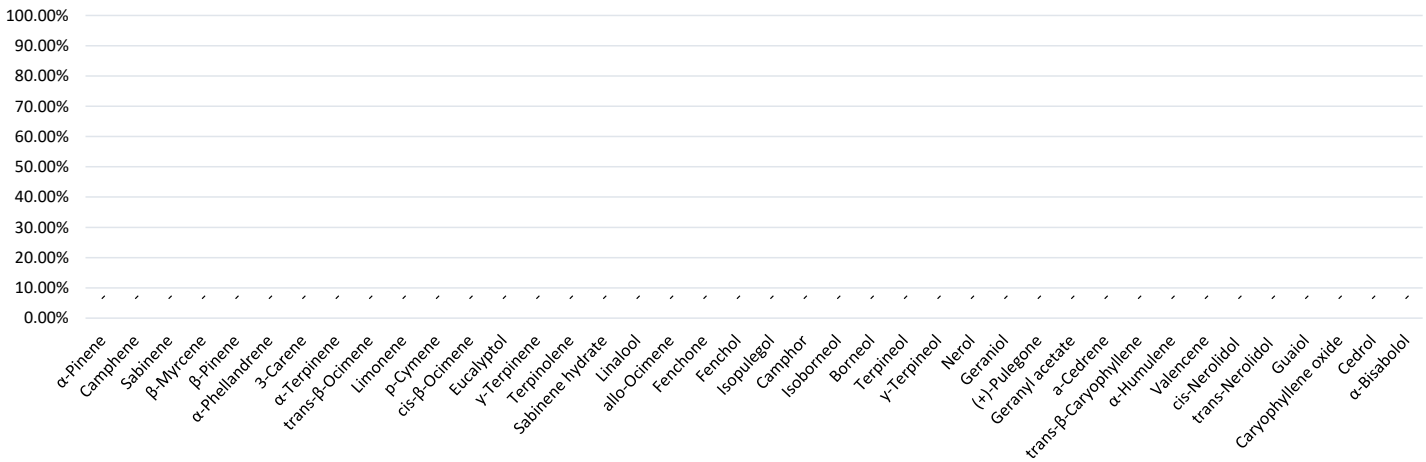
**Microbiological Contaminants (Oregon Compliance Standard OAR 333-007-0390)**

ANALYSIS DATE: Not Tested			
Microbiological screening	Colony count	CFU/g	Results:
Total coliforms	Not tested	Not tested	N/A
<i>Escherichia coli</i> (E. coli)	Not tested	Not tested	N/A

### Terpene Profile

ANALYSIS DATE: Not Tested			Instrument: GC/MS			Method: JA-Terpene-Proprietary		
Compound	µg/g	%	Compound	µg/g	%	Compound	µg/g	%
α-Pinene			Isopulegol					
Camphene			Camphor					
Sabinene			Isoborneol					
β-Myrcene			Borneol					
β-Pinene			Terpineol					
α-Phellandrene			γ-Terpineol					
3-Carene			Nerol					
α-Terpinene			Geraniol					
trans-β-Ocimene			(+)-Pulegone					
Limonene			Geranyl acetate					
p-Cymene			α-Cedrene					
cis-β-Ocimene			trans-β-Caryophyllene					
Eucalyptol			α-Humulene					
γ-Terpinene			Valencene					
Terpinolene			cis-Nerolidol					
Sabinene hydrate			trans-Nerolidol					
Linalool			Guaiol					
allo-Ocimene			Caryophyllene oxide					
Fenchone			Cedrol					
Fenchol			α-Bisabolol					
			TOTAL					

### Terpene Profile\*



\* Profile expressed as a percent of total terpenes

Batch QC WorkGroup ID:

Potency PO-2019-11-05-03

Pesticides N/A

Residual Solvents N/A

### Disclaimer

The results within this report apply only to the product tested and batched under the batch number identified above. These test results are for the exclusive use of the above named individual or entity. This report must not be altered, and may not be reproduced, except in their entirety, without written consent of Juniper Analytics, LLC. Requests for information regarding these results should be referred to the aforementioned individual or entity.