



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



**Report Number:** 21-013080/D003.R000  
**Report Date:** 11/11/2021  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/05/21 11:28

**Customer:** Hempti  
**Product identity:** H.H. Live Oil Tincture #11042101  
**Client/Metric ID:** .  
**Laboratory ID:** 21-013080-0002

### Summary

#### Potency:

Analyte	Result (%)			
CBD	2.97		CBD-Total	2.97%
$\Delta^9$ -THC	0.193		THC-Total	0.193%
CBG†	0.125		(Reported in percent of total sample)	
CBC	0.112			
CBT†	0.0591			
CBDV†	0.0176			
CBE†	0.0141			
CBD-A	0.00423			

#### Residual Solvents:

All analytes passing and less than LOQ.

#### Pesticides:

All analytes passing and less than LOQ.

#### Terpenes:

Analyte	Percent by weight	Percent of Total	Analyte	Percent by weight	Percent of Total
$\beta$ -Myrcene†	0.113	35.20%	farnesene†	0.0555	17.29%
(R)-(+)-Limonene†	0.0414	12.90%	$\beta$ -Caryophyllene†	0.0398	12.40%
$\alpha$ -pinene†	0.0367	11.43%	(-)-Guaiol†	0.0193	6.01%
trans- $\beta$ -Ocimene†	0.0154	4.80%	<b>Total Terpenes†</b>	<b>0.321</b>	<b>100.00%</b>

#### Metals:

Less than LOQ for all analytes.





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Solvents						Residual Solvents by GC/MS						Units µg/g		Batch 2110148		Analyze 11/10/21 01:33 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes								
1,4-Dioxane	< LOQ	380	100	pass		2-Butanol	< LOQ	5000	200	pass									
2-Ethoxyethanol	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane)	< LOQ		200										
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass									
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200										
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0										
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass									
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass									
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass									
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass									
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	20.0	pass									
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass									
Isopropylbenzene (Cumene)	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200										
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	60.0	pass									
Methylpropane (Isobutane)	< LOQ		200			n-Butane	< LOQ		200										
n-Heptane	< LOQ	5000	200	pass		n-Hexane	< LOQ		30.0										
n-Pentane	< LOQ		200			o-Xylene	< LOQ		200										
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass									
Tetrahydrofuran	< LOQ	720	100	pass		Toluene	< LOQ	890	100	pass									
Total Xylenes	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass									



cannot be based on

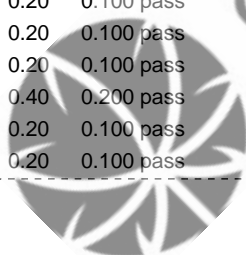


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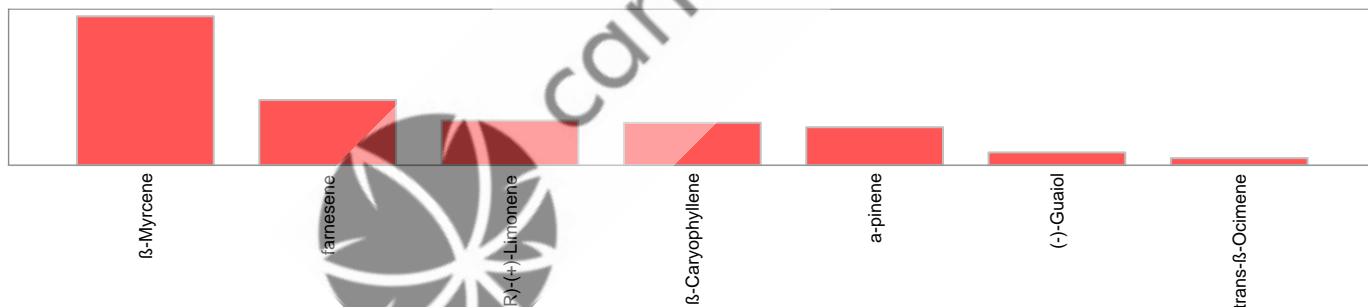
Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2110111 Analyze 11/09/21 03:09 PM											
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin	< LOQ	0.50	0.250	pass		Acephate	< LOQ	0.40	0.250	pass	
Acequinocyl	< LOQ	2.0	1.00	pass		Acetamiprid	< LOQ	0.20	0.100	pass	
Aldicarb	< LOQ	0.40	0.200	pass		Azoxystrobin	< LOQ	0.20	0.100	pass	
Bifenazate	< LOQ	0.20	0.100	pass		Bifenthrin	< LOQ	0.20	0.100	pass	
Boscalid	< LOQ	0.40	0.200	pass		Carbaryl	< LOQ	0.20	0.100	pass	
Carbofuran	< LOQ	0.20	0.100	pass		Chlorantraniliprole	< LOQ	0.20	0.100	pass	
Chlorfenapyr	< LOQ	1.0	0.500	pass		Chlorpyrifos	< LOQ	0.20	0.100	pass	
Clofentezine	< LOQ	0.20	0.100	pass		Cyfluthrin	< LOQ	1.0	0.500	pass	
Cypermethrin	< LOQ	1.0	0.500	pass		Daminozide	< LOQ	1.0	0.500	pass	
Diazinon	< LOQ	0.20	0.100	pass		Dichlorvos	< LOQ	1.0	0.500	pass	
Dimethoate	< LOQ	0.20	0.100	pass		Ethoprophos	< LOQ	0.20	0.100	pass	
Etofenprox	< LOQ	0.40	0.200	pass		Etoxazole	< LOQ	0.20	0.100	pass	
Fenoxycarb	< LOQ	0.20	0.100	pass		Fenpyroximate	< LOQ	0.40	0.200	pass	
Fipronil	< LOQ	0.40	0.200	pass		Fonicamid	< LOQ	1.0	0.400	pass	
Fludioxonil	< LOQ	0.40	0.200	pass		Hexythiazox	< LOQ	1.0	0.400	pass	
Imazalil	< LOQ	0.20	0.100	pass		Imidacloprid	< LOQ	0.40	0.200	pass	
Kresoxim-methyl	< LOQ	0.40	0.200	pass		Malathion	< LOQ	0.20	0.100	pass	
Metalaxyl	< LOQ	0.20	0.100	pass		Methiocarb	< LOQ	0.20	0.100	pass	
Methomyl	< LOQ	0.40	0.200	pass		MGK-264	< LOQ	0.20	0.100	pass	
Myclobutanil	< LOQ	0.20	0.100	pass		Naled	< LOQ	0.50	0.250	pass	
Oxamyl	< LOQ	1.0	0.500	pass		Paclobutrazole	< LOQ	0.40	0.200	pass	
Parathion-Methyl	< LOQ	0.20	0.200	pass		Permethrin	< LOQ	0.20	0.100	pass	
Phosmet	< LOQ	0.20	0.100	pass		Piperonyl butoxide	< LOQ	2.0	1.00	pass	
Prallethrin	< LOQ	0.20	0.200	pass		Propiconazole	< LOQ	0.40	0.200	pass	
Propoxur	< LOQ	0.20	0.100	pass		Pyrethrin I (total)	< LOQ	1.0	0.500	pass	
Pyridaben	< LOQ	0.20	0.100	pass		Spinosad	< LOQ	0.20	0.100	pass	
Spiromesifen	< LOQ	0.20	0.100	pass		Spirotetramat	< LOQ	0.20	0.100	pass	
Spiroxamine	< LOQ	0.40	0.200	pass		Tebuconazole	< LOQ	0.40	0.200	pass	
Thiacloprid	< LOQ	0.20	0.100	pass		Thiamethoxam	< LOQ	0.20	0.100	pass	
Trifloxystrobin	< LOQ	0.20	0.100	pass							



Camera Based



Terpenes				Method J AOAC 2015 V98-6	Units %	Batch 2110153	Analyze 11/09/21 09:50 AM		
Analyte	Result	LOQ	% of Total	Notes	Analyte	Result	LOQ	% of Total	Notes
β-Myrcene <sup>†</sup>	0.113	0.019	35.202%		farnesene <sup>†</sup>	0.0555	0.019	17.2897%	
(R)-(+)-Limonene <sup>†</sup>	0.0414	0.019	12.8972%		β-Caryophyllene <sup>†</sup>	0.0398	0.019	12.3988%	
α-pinene <sup>†</sup>	0.0367	0.019	11.4330%		(-)-Guaiol <sup>†</sup>	0.0193	0.019	6.0125%	
Humulene <sup>†</sup>	< LOQ	0.019	0.00%		trans-β-Ocimene <sup>†</sup>	0.0154	0.012	4.7975%	
Geraniol <sup>†</sup>	< LOQ	0.019	0.00%		Sabinene <sup>†</sup>	< LOQ	0.019	0.00%	
α-Bisabolol <sup>†</sup>	< LOQ	0.019	0.00%		Linalool <sup>†</sup>	< LOQ	0.019	0.00%	
γ-Terpinene <sup>†</sup>	< LOQ	0.019	0.00%		(+)-fenchol <sup>†</sup>	< LOQ	0.019	0.00%	
α-Terpinene <sup>†</sup>	< LOQ	0.019	0.00%		(-)-β-Pinene <sup>†</sup>	< LOQ	0.019	0.00%	
Terpinolene <sup>†</sup>	< LOQ	0.019	0.00%		(+)-Borneol <sup>†</sup>	< LOQ	0.019	0.00%	
cis-β-Ocimene <sup>†</sup>	< LOQ	0.006	0.00%		(-)-α-Terpineol <sup>†</sup>	< LOQ	0.019	0.00%	
nerol <sup>†</sup>	< LOQ	0.019	0.00%		Sabinene hydrate <sup>†</sup>	< LOQ	0.019	0.00%	
(±)-trans-Nerolidol <sup>†</sup>	< LOQ	0.019	0.00%		Menthol <sup>†</sup>	< LOQ	0.019	0.00%	
Geranyl acetate <sup>†</sup>	< LOQ	0.019	0.00%		(+)-Pulegone <sup>†</sup>	< LOQ	0.019	0.00%	
(±)-Camphor <sup>†</sup>	< LOQ	0.019	0.00%		(±)-fenchone <sup>†</sup>	< LOQ	0.019	0.00%	
α-phellandrene <sup>†</sup>	< LOQ	0.019	0.00%		(-)-caryophyllene oxide <sup>†</sup>	< LOQ	0.019	0.00%	
(-)-Isopulegol <sup>†</sup>	< LOQ	0.019	0.00%		(+)-Cedrol <sup>†</sup>	< LOQ	0.019	0.00%	
(±)-cis-Nerolidol <sup>†</sup>	< LOQ	0.019	0.00%		α-cedrene <sup>†</sup>	< LOQ	0.019	0.00%	
Camphene <sup>†</sup>	< LOQ	0.019	0.00%		d-3-Carene <sup>†</sup>	< LOQ	0.019	0.00%	
Eucalyptol <sup>†</sup>	< LOQ	0.019	0.00%		Isoborneol <sup>†</sup>	< LOQ	0.019	0.00%	
p-Cymene <sup>†</sup>	< LOQ	0.019	0.00%		valencene <sup>†</sup>	< LOQ	0.019	0.00%	
<b>Total Terpenes</b>	<b>0.321</b>								



Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.0454	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X
Cadmium	< LOQ	0.200	mg/kg	0.0454	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X
Lead	< LOQ	0.500	mg/kg	0.0454	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X
Mercury	< LOQ	0.100	mg/kg	0.0227	2110108	11/09/21	AOAC 2013.06 (mod.)	pass	X



**Mycotoxins**

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Status	Notes
Aflatoxin B2 <sup>†</sup>	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Aflatoxin B1 <sup>†</sup>	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Aflatoxin G1 <sup>†</sup>	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Aflatoxin G2 <sup>†</sup>	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Deoxynivalenol <sup>†</sup>	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		
Fumonisin B1 <sup>†</sup>	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		
Fumonisin B2 <sup>†</sup>	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		
HT2-Toxin <sup>†</sup>	< LOQ		µg/kg	40.0	2110094	11/09/21	AOAC 2007.01 & EN 15		
Nivalenol <sup>†</sup>	< LOQ		µg/kg	400	2110094	11/09/21	AOAC 2007.01 & EN 15		
Ochratoxin A <sup>†</sup>	< LOQ		µg/kg	5.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
Ochratoxin B <sup>†</sup>	< LOQ		µg/kg	2.00	2110094	11/09/21	AOAC 2007.01 & EN 15		
T2-Toxin <sup>†</sup>	< LOQ		µg/kg	20.0	2110094	11/09/21	AOAC 2007.01 & EN 15		
Zearalenone <sup>†</sup>	< LOQ		µg/kg	200	2110094	11/09/21	AOAC 2007.01 & EN 15		



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These test results are representative of the individual sample selected and submitted by the client.

**Abbreviations**

**Limits:** Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

**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.

† = Analyte not NELAP accredited.

**Units of Measure**

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

% = Percentage of sample

% wt = µg/g divided by 10,000

**Glossary of Qualifiers**

X: Not ORELAP accredited.



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Approved Signatory



Derrick Tanner  
General Manager





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**Hemp / Cannabis Usable / Extract / Finished Products**

**Chain of Custody Record**

Document Control ID: 2732 Revision: 1  
Effective: 05/04/2021  
ORELAP ID: OR100028

Company: <u>Hempsi</u> Contact: <u>Andrew Barton</u> Street: <u>815 Grand Blvd</u> City: <u>Vancouver</u> State: <u>WA</u> Zip: <u>98661</u> <input checked="" type="checkbox"/> Email Results: <u>a.barton@hempsi.com</u> Ph: ( ) ( ) <input type="checkbox"/> Fx Results: ( ) ( ) Billing (if different): _____				<b>Analysis Requested</b> Pesticides - OR 59 compounds Pesticide Multi-Residue - 379 compounds Potency Residual Solvents Moisture & Water Activity Terpenes Micro: Yeast and Mold Micro: E. Coli and Total Coliform Heavy Metals Mycotoxins Other: _____										PO Number: _____ Project Number: _____ Project Name: _____ Custom Reporting: _____ Report to State - <input type="checkbox"/> METRC or <input type="checkbox"/> Other: _____ Turnaround time: <input checked="" type="checkbox"/> 5 Business Day Standard Turnaround <input type="checkbox"/> 3 Business Day Rush Turnaround* <input type="checkbox"/> 2 Business Day Rush Turnaround* *Check for availability			
Lab ID	Client Sample Identification	Date	Time	Pesticides - OR 59 compounds	Pesticide Multi-Residue - 379 compounds	Potency	Residual Solvents	Moisture & Water Activity	Terpenes	Micro: Yeast and Mold	Micro: E. Coli and Total Coliform	Heavy Metals	Mycotoxins	Other	Sample Type	Weight (g)	Comments/Metric ID
	Hawaiian Haze Live Resin	11/4/21	9:30am	X	X	X	X	X				X	X		C	~10g	
	H.H. Live Oil Tincture #11042101	11/4/21	9:30am	X	X	X	X	X				X	X		T	~30g	
	Sour RNA Live Oil Tincture #10282101	11/4/21	9:30am	X	X	X	X	X				X	X		T	~30g	
Relinquished By:				Date	Time	Received By:					Date	Time	Lab Use Only:				
<u>Andrew Barton</u>				11/4/21	9:30am	<u>Jmw</u>					11-5-21	11:28	<input type="checkbox"/> Shipped Via: <u>UPS</u> or <input type="checkbox"/> Client drop Evidence of cooling: <input type="checkbox"/> Yes <input type="checkbox"/> No - Temp (°C): <u>20.1</u> Sample in good condition: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Cash   <input type="checkbox"/> Check   <input type="checkbox"/> CC   <input type="checkbox"/> Net: Prelog storage: _____				

Sample Type Codes: Vegetation (V) ; Isolates (S) ; Extract/Concentrate (C) ; Tincture/Topical (T) ; Edible (E) ; Beverage (B)

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P: (503) 254-1794 | Fax: (503) 254-1452  
info@columbialaboratories.com

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www.columbialaboratories.com





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Document ID: 3177 Revision: 2  
Effective: 06/25/2021  
Page 1 of 1

Job Number: \_\_\_\_\_ Search Name: \_\_\_\_\_

Package/Cooler opened on (if different than received date/time) Date: 11-5-21 Time: 11:28

Received By (Initials): JV Logged in by (Initials): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

1) Were custody seals on outside of the package/cooler? YES NO NA  
If YES, how many and where? \_\_\_\_\_

Does date match collection date on COC? \_\_\_\_\_ YES NO NA

2) Was Chain of Custody (COC) included in the package/cooler? YES NO NA

3) Was COC signed when relinquished and received? (time, date)? YES NO NA

4) How was the package/cooler delivered?

UPS FEDEX USPS CLIENT COURIER OTHER: \_\_\_\_\_

Tracking Number (written in or copy of shipping label): 1Z 937 A57 13 2305 5247

5) Was packing material used? YES NO NA

Peanuts Bubble Wrap Foam Paper Other: \_\_\_\_\_

6) Was temperature upon receipt 4°C+- 2°C (if appropriate)? YES NO NA  
If not, client contacted: \_\_\_\_\_  
Proceed? YES NO

7) Was there evidence of cooling? YES NO NA

What kind? Blue Ice Ice Cooler Packs Dry Ice

8) Were all sample containers sealed in separate plastic bags? YES NO NA

9) Did all sample containers arrive in good condition? YES NO NA

10) Were all sample container labels complete? YES NO NA

11) Did all sample container labels and tags agree with the COC? YES NO NA

12) Were correct sample containers used for the tests indicated? YES NO NA

13) Were VOA vials checked for absence of air bubbles (note if found)? YES NO NA

14) Was a sufficient amount of sample sent in each sample container? YES NO NA

16) Sample location prior to login: R99 R39 R44 F44 Ambient Shelf Cannabis Table Other: \_\_\_\_\_

Explain any discrepancies: \_\_\_\_\_



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Revision: 2 Document ID: 3120  
 Legacy ID: CFL-C21Effective:

**Laboratory Pesticide Quality Control Results**

AOAC 2007.1 & EN 15662		Units: mg/Kg		Batch ID: 2110111				
Method Blank		Laboratory Control Sample						
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
	0.020	< 0.250		1.230	1.000	123.0	71.6 - 133	
Acephate	0.000	< 1.000		4.924	4.000	123.1	70.8 - 132	
Acequinocyl	0.000	< 0.100		0.486	0.400	121.4	71.4 - 133	
Acetamiprid	0.000	< 0.200		0.956	0.800	119.5	74.1 - 138	
Aldicarb	0.000	< 0.250		1.304	1.000	130.4	74.6 - 139	
Abamectin	0.000	< 0.100		0.482	0.400	120.4	70.8 - 132	
Azoxystrobin	0.000	< 0.100		0.757	0.400	189.3	75.9 - 141	Q1
Bifenazate	0.000	< 0.100		0.519	0.400	129.7	70.2 - 130	
Bifenthrin	0.000	< 0.200		1.046	0.800	130.7	71.1 - 132	
Boscalid	0.002	< 0.100		0.501	0.400	125.3	71.4 - 133	
Carbaryl	0.022	< 0.100		0.468	0.400	117.0	72.8 - 135	
Carbofuran	0.000	< 0.100		0.375	0.400	93.7	67.8 - 126	
Chlorantraniliprol	0.000	< 0.500		2.381	2.000	119.0	72.1 - 134	
Chlorfenapyr	0.000	< 0.100		0.478	0.400	119.6	69.3 - 129	
Chlorpyrifos	0.000	< 0.100		0.508	0.400	126.9	70.6 - 131	
Clofentezine	0.000	< 0.500		2.604	2.000	130.2	73.4 - 136	
Cyfluthrin	0.000	< 0.500		2.517	2.000	125.9	72.4 - 134	
Cypermethrin	0.000	< 0.500		2.222	2.000	111.1	71.5 - 133	
Daminozide	0.000	< 0.100		0.513	0.400	128.2	71.5 - 133	
Diazinon	0.000	< 0.500		2.198	2.000	109.9	69.9 - 130	
Dichlorvos	0.000	< 0.100		0.488	0.400	121.9	71.3 - 132	
Dimethoat	0.000	< 0.100		0.510	0.400	127.5	70.2 - 130	
Ethoprophos	0.000	< 0.200		1.069	0.800	133.6	72.8 - 135	
Etofenprox	0.000	< 0.100		0.528	0.400	131.9	71.9 - 134	
Etoxazol	0.000	< 0.100		0.506	0.400	126.6	70.9 - 132	
Fenoxycarb	0.000	< 0.200		0.979	0.800	122.4	71.9 - 133	
Fenproximat	0.000	< 0.200		1.084	0.800	135.5	73.1 - 136	
Fipronil	0.000	< 0.250		1.076	1.000	107.6	71.5 - 133	
Flonicamid	0.000	< 0.200		1.016	0.800	127.0	74.7 - 139	
Fludoxonil	0.000	< 0.250		1.278	1.000	127.8	69.7 - 129	
Hexythiazox	0.000	< 0.100		0.506	0.400	126.4	73.3 - 136	
Imazalil	0.000	< 0.200		0.977	0.800	122.2	71.0 - 132	
Imidacloprid	0.000	< 0.200		1.018	0.800	127.3	71.1 - 132	
Kresoxim-Methyl	0.000	< 0.100		0.518	0.400	129.6	70.8 - 132	
Malathion	0.000	< 0.100		0.513	0.400	128.3	71.7 - 133	
Metaxalyl	0.000	< 0.100		0.497	0.400	124.2	70.8 - 132	
Methiocarb	0.000	< 0.200		0.885	0.800	110.6	70.7 - 131	
Methomyl	0.000	< 0.100		0.510	0.400	127.5	70.8 - 132	
M/GK 264	0.000	< 0.100		0.518	0.400	129.5	71.4 - 133	
Myclobutanil	0.000	< 0.250		1.189	1.000	118.9	72.8 - 135	
Naled	0.000	< 0.500		2.079	2.000	104.0	71.6 - 133	
Oxamyl	0.000	< 0.200		1.033	0.800	129.2	71.7 - 133	
Paclobutrazol	0.000	< 0.200		1.006	0.800	125.8	73.9 - 137	
Parathion Methyl	0.000	< 0.100		0.518	0.400	129.5	71.4 - 133	
Permethrin	0.000	< 0.100		0.521	0.400	130.1	71.0 - 132	
Phosmet	0.000	< 0.500		2.624	2.000	131.2	73.9 - 137	
Piperonyl butoxide	0.000	< 0.100		0.501	0.400	125.3	71.6 - 133	
Prallethrin	0.018	< 0.200		1.033	0.800	129.1	71.2 - 132	
Propiconazole	0.004	< 0.100		0.490	0.400	122.5	70.7 - 131	
Propoxur	0.000	< 0.100		0.397	0.413	96.2	68.3 - 127	
Pyrethrins	0.000	< 0.100		0.512	0.400	128.1	70.9 - 132	
Pyridaben	0.000	< 0.100		0.518	0.388	133.6	73.5 - 137	
Spinosad	0.000	< 0.100		0.523	0.400	130.8	72.4 - 134	
Spiromesifen	0.000	< 0.100		0.507	0.400	126.8	71.4 - 133	
Spirotetramat	0.000	< 0.200		0.871	0.800	108.9	69.4 - 129	
Spiroxamine	0.000	< 0.200		1.033	0.800	129.1	71.0 - 132	
Tebuconazol	0.000	< 0.100		0.499	0.400	124.7	70.6 - 131	
Thiadoprid	0.000	< 0.100		0.420	0.400	105.1	70.6 - 131	
Thiamethoxam	0.000	< 0.100		0.494	0.400	123.4	71.1 - 132	
Trifloxystrobin	0.000	< 0.100						





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



Report Number: 21-013080/D003.R000  
 Report Date: 11/11/2021  
 ORELAP#: OR100028  
 Purchase Order:  
 Received: 11/05/21 11:28

Revision: 2 Document ID: 3120  
 Legacy ID: CFL-C21Effective:

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg						Batch ID: 2110111		
Matrix Spike/Matrix Spike Duplicate Recoveries		Sample ID: 21-012818-0003								
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Acephate	0.030	1.191	1.256	1.000	5.4%	< 30	116.2%	122.6%	50 - 150	
Acetaminophen	0.000	4.797	5.125	4.000	6.6%	< 30	119.9%	128.1%	50 - 150	
Acetamiprid	0.000	0.512	0.515	0.400	0.7%	< 30	128.0%	128.8%	50 - 150	
Aldicarb	0.000	0.914	0.989	0.800	7.9%	< 30	114.2%	123.6%	50 - 150	
Abamectin	0.000	1.499	1.616	1.000	7.5%	< 30	149.9%	161.6%	50 - 150	Q1
Azoxystrobin	0.000	0.471	0.493	0.400	4.5%	< 30	117.8%	123.2%	50 - 150	
Bifenazate	0.000	0.785	0.842	0.400	7.0%	< 30	196.3%	210.5%	50 - 150	Q1
Bifenthrin	0.000	0.483	0.532	0.400	9.7%	< 30	120.8%	133.1%	50 - 150	
Boscalid	0.000	1.035	1.137	0.800	9.4%	< 30	129.3%	142.1%	50 - 150	
Carbaryl	0.000	0.478	0.502	0.400	4.8%	< 30	119.6%	125.4%	50 - 150	
Carbofuran	0.000	0.462	0.481	0.400	4.1%	< 30	115.5%	120.3%	50 - 150	
Chlorantraniliprol	0.000	0.398	0.414	0.400	3.8%	< 30	99.5%	103.4%	50 - 150	
Chlorfenapyr	0.000	2.813	2.826	2.000	0.5%	< 30	140.7%	141.3%	50 - 150	
Chlorpyrifos	0.000	0.474	0.502	0.400	5.7%	< 30	118.5%	125.4%	50 - 150	
Clofentezine	0.000	0.510	0.529	0.400	3.7%	< 30	127.6%	132.4%	50 - 150	
Cyfluthrin	0.000	1.636	1.799	2.000	9.5%	< 30	81.8%	90.0%	30 - 150	
Cypermethrin	0.000	1.623	1.681	2.000	3.5%	< 30	81.1%	84.0%	50 - 150	
Daminozide	0.000	2.660	2.739	2.000	2.9%	< 30	133.0%	136.9%	30 - 150	
Diazinon	0.000	0.488	0.505	0.400	3.5%	< 30	122.0%	126.3%	50 - 150	
Dichlorvos	0.000	2.154	2.270	2.000	5.3%	< 30	107.7%	113.5%	50 - 150	
Dimethoat	0.000	0.485	0.508	0.400	4.7%	< 30	121.3%	127.1%	50 - 150	
Ethoprophos	0.000	0.495	0.530	0.400	6.7%	< 30	123.9%	132.4%	50 - 150	
Etofenprox	0.000	1.026	1.110	0.800	7.8%	< 30	128.3%	138.7%	50 - 150	
Etoxazol	0.000	0.528	0.556	0.400	5.2%	< 30	131.9%	138.9%	50 - 150	
Fenoxycarb	0.000	0.517	0.543	0.400	5.0%	< 30	129.2%	135.8%	50 - 150	
Fenpyroximat	0.000	0.818	0.864	0.800	5.4%	< 30	102.2%	107.9%	50 - 150	
Fipronil	0.000	1.044	1.182	0.800	12.4%	< 30	130.5%	147.7%	50 - 150	
Fonicamid	0.000	1.058	1.199	1.000	12.4%	< 30	105.8%	119.9%	50 - 150	
Fludoxonil	0.000	1.084	1.119	0.800	3.1%	< 30	135.6%	139.0%	50 - 150	
Hexythiazox	0.000	1.335	1.359	1.000	1.8%	< 30	133.5%	135.9%	50 - 150	
Imazalil	0.000	0.509	0.531	0.400	4.1%	< 30	127.3%	132.7%	50 - 150	
Imidacloprid	0.000	0.969	1.028	0.800	5.9%	< 30	121.1%	128.4%	50 - 150	
Kresoxim-Methyl	0.000	1.023	1.082	0.800	5.6%	< 30	127.8%	135.2%	50 - 150	
Malathion	0.000	0.508	0.531	0.400	4.5%	< 30	126.9%	132.7%	50 - 150	
Metaxalyl	0.000	0.511	0.539	0.400	5.3%	< 30	127.8%	134.7%	50 - 150	
Methiocarb	0.000	0.478	0.559	0.400	15.6%	< 30	119.5%	139.7%	50 - 150	
Methomyl	0.000	0.796	1.016	0.800	24.2%	< 30	99.5%	127.0%	50 - 150	
MGK 264	0.000	0.520	0.542	0.400	4.0%	< 30	130.1%	135.4%	50 - 150	
Myclobutanil	0.000	0.492	0.497	0.400	1.1%	< 30	123.0%	124.4%	50 - 150	
Naled	0.000	1.235	1.261	1.000	2.1%	< 30	123.5%	126.1%	50 - 150	
Oxamyl	0.000	2.065	2.419	2.000	15.8%	< 30	103.3%	120.9%	50 - 150	
Paclobutrazol	0.000	1.028	1.094	0.800	6.3%	< 30	128.5%	136.7%	50 - 150	
Parathion Methyl	0.000	1.085	1.096	0.800	1.1%	< 30	135.6%	137.1%	30 - 150	
Permethrin	0.000	0.494	0.522	0.400	5.6%	< 30	123.4%	130.5%	50 - 150	
Phosmet	0.000	0.524	0.569	0.400	8.4%	< 30	130.9%	142.3%	50 - 150	
Piperonyl butoxide	0.000	2.839	2.973	2.000	4.6%	< 30	142.0%	148.7%	50 - 150	
Prallethrin	0.016	0.551	0.560	0.400	1.7%	< 30	133.8%	136.1%	50 - 150	
Propiconazole	0.015	1.053	1.064	0.800	1.0%	< 30	129.7%	131.0%	50 - 150	
Propoxur	0.000	0.471	0.488	0.400	3.5%	< 30	117.8%	122.0%	50 - 150	
Pyrethrins	0.000	0.388	0.418	0.413	7.4%	< 30	93.9%	101.1%	50 - 150	
Pyridaben	0.000	0.549	0.554	0.400	0.8%	< 30	137.2%	138.4%	50 - 150	
Spinosad	0.000	0.514	0.546	0.388	6.0%	< 30	132.6%	140.7%	50 - 150	
Spiromesifen	0.000	0.536	0.545	0.400	1.6%	< 30	134.0%	136.2%	50 - 150	
Spirotetramat	0.000	0.528	0.550	0.400	4.0%	< 30	132.0%	137.4%	50 - 150	
Spiroxamine	0.000	0.818	0.975	0.800	17.5%	< 30	102.3%	121.8%	50 - 150	
Tebuconazol	0.000	1.050	1.105	0.800	5.0%	< 30	131.3%	138.1%	50 - 150	
Thiadoprid	0.000	0.505	0.511	0.400	1.2%	< 30	126.3%	127.8%	50 - 150	
Thiamethoxam	0.000	0.410	0.426	0.400	3.8%	< 30	102.5%	106.5%	50 - 150	
Trifloxystrobin	0.000	0.570	0.534	0.400	6.4%	< 30	142.5%	133.6%	50 - 150	



12423 NE Whitaker Way  
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**Report Number:** 21-013080/D003.R000  
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**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/05/21 11:28



Revision #: 0.00 Control : CFL-D06  
Revision Date: 05/31/2019 Effective Date: 05/31/2019

**Laboratory Quality Control Results**

J AOAC 2015 V98-6							
Batch ID: 2110138							
Laboratory Control Sample							
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	0.00954	0.01	%	95.4	85.0 - 115	Acceptable	
CBDV	0.00993	0.01	%	99.3	85.0 - 115	Acceptable	
CBE	0.00982	0.01	%	98.2	85.0 - 115	Acceptable	
CBDA	0.00976	0.01	%	97.6	85.0 - 115	Acceptable	
CBGA	0.00956	0.01	%	95.6	85.0 - 115	Acceptable	
CBG	0.00989	0.01	%	98.9	85.0 - 115	Acceptable	
CBD	0.0102	0.01	%	102	85.0 - 115	Acceptable	
THCV	0.00943	0.01	%	94.3	85.0 - 115	Acceptable	
d8THCV	0.00964	0.01	%	96.4	85.0 - 115	Acceptable	
THCVA	0.00925	0.01	%	92.5	85.0 - 115	Acceptable	
CBN	0.0103	0.01	%	103	85.0 - 115	Acceptable	
exo-THC	0.00956	0.01	%	95.6	85.0 - 115	Acceptable	
d9THC	0.00987	0.01	%	98.7	85.0 - 115	Acceptable	
d8THC	0.00987	0.01	%	98.7	85.0 - 115	Acceptable	
CBL	0.00952	0.01	%	95.2	85.0 - 115	Acceptable	
CBC	0.0100	0.01	%	100	85.0 - 115	Acceptable	
THCA	0.00994	0.01	%	99.4	85.0 - 115	Acceptable	
CBCA	0.00951	0.01	%	95.1	85.0 - 115	Acceptable	
CBLA	0.00999	0.01	%	99.9	85.0 - 115	Acceptable	
CBT	0.0103	0.01	%	103	85.0 - 115	Acceptable	

Method Blank							
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes	
CBDVA	<LOQ	0.003	%	< 0.003	Acceptable		
CBDV	<LOQ	0.003	%	< 0.003	Acceptable		
CBE	<LOQ	0.003	%	< 0.003	Acceptable		
CBDA	<LOQ	0.003	%	< 0.003	Acceptable		
CBGA	<LOQ	0.003	%	< 0.003	Acceptable		
CBG	<LOQ	0.003	%	< 0.003	Acceptable		
CBD	<LOQ	0.003	%	< 0.003	Acceptable		
THCV	<LOQ	0.003	%	< 0.003	Acceptable		
d8THCV	<LOQ	0.003	%	< 0.003	Acceptable		
THCVA	<LOQ	0.003	%	< 0.003	Acceptable		
CBN	<LOQ	0.003	%	< 0.003	Acceptable		
exo-THC	<LOQ	0.003	%	< 0.003	Acceptable		
d9THC	<LOQ	0.003	%	< 0.003	Acceptable		
d8THC	<LOQ	0.003	%	< 0.003	Acceptable		
CBL	<LOQ	0.003	%	< 0.003	Acceptable		
CBC	<LOQ	0.003	%	< 0.003	Acceptable		
THCA	<LOQ	0.003	%	< 0.003	Acceptable		
CBCA	<LOQ	0.003	%	< 0.003	Acceptable		
CBLA	<LOQ	0.003	%	< 0.003	Acceptable		
CBT	<LOQ	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



Revision #: 0.00 Control : CFL-D06  
Revision Date: 05/31/2019 Effective Date: 05/31/2019

**Laboratory Quality Control Results**

J AOAC 2015 V98-6								
Batch ID: 2110138								
Sample Duplicate								
Sample ID: 21-005060-0003								
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	0	0	0.003	%	10	< 20	Acceptable	
CBDV	0.0452	0.0476	0.003	%	5.14	< 20	Acceptable	
CBE	0.0157	0.0161	0.003	%	2.29	< 20	Acceptable	
CBDA	0.484	0.496	0.003	%	2.51	< 20	Acceptable	
CBGA	0.00843	0.00869	0.003	%	3.02	< 20	Acceptable	
CBG	0.0192	0.0196	0.003	%	1.94	< 20	Acceptable	
CBD	2.86	2.87	0.003	%	0.282	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	0.0404	0.0416	0.003	%	2.88	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBC	0.150	0.153	0.003	%	2.43	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	0.0417	0.0396	0.003	%	5.19	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBT	0.0270	0.0270	0.003	%	0.00921	< 20	Acceptable	

**Abbreviations**

- ND - None Detected at or above MRL
- RPD - Relative Percent Difference
- LOQ - Limit of Quantitation
- NA - Calculation Not Applicable given non-numerical results

**Units of Measure:**

% - Percent



cannabased





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



**Report Number:** 21-013080/D003.R000  
**Report Date:** 11/11/2021  
**ORELAP#:** OR100028  
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Laboratory Quality Control Results

Residual Solvents		Batch ID: 2110148										
Method Blank				Laboratory Control Sample								
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes			
Propane	ND	< 200		929	948	µg/g	98.0	70	130			
Isobutane	ND	< 200		1080	1260	µg/g	85.7	70	130			
Butane	ND	< 200		1070	1260	µg/g	84.9	70	130			
2,2-Dimethylpropane	ND	< 200		1650	1600	µg/g	103.1	70	130			
Methanol	ND	< 200		1830	1610	µg/g	113.7	70	130			
Ethylene Oxide	ND	< 30		94.9	95.7	µg/g	99.2	70	130			
2-Methylbutane	ND	< 200		1610	1610	µg/g	100.0	70	130			
Pentane	ND	< 200		1580	1610	µg/g	98.1	70	130			
Ethanol	ND	< 200		1790	1610	µg/g	111.2	70	130			
Ethyl Ether	ND	< 200		1640	1610	µg/g	101.9	70	130			
2,2-Dimethylbutane	ND	< 30		139	164	µg/g	84.8	70	130			
Acetone	ND	< 200		1600	1610	µg/g	99.4	70	130			
2-Propanol	ND	< 200		1570	1610	µg/g	97.5	70	130			
Acetonitrile	ND	< 100		405	484	µg/g	83.7	70	130			
2,3-Dimethylbutane	ND	< 30		161	167	µg/g	96.4	70	130			
Dichloromethane	ND	< 60		469	491	µg/g	95.5	70	130			
2-Methylpentane	ND	< 30		145	165	µg/g	87.9	70	130			
3-Methylpentane	ND	< 30		177	172	µg/g	102.9	70	130			
Hexane	ND	< 30		175	167	µg/g	104.8	70	130			
Ethyl acetate	ND	< 200		1660	1610	µg/g	103.1	70	130			
2-Butanol	ND	< 200		1610	1610	µg/g	100.0	70	130			
Tetrahydrofuran	ND	< 100		471	483	µg/g	97.5	70	130			
Cyclohexane	ND	< 200		1520	1610	µg/g	94.4	70	130			
Benzene	ND	< 1		4.73	5.36	µg/g	88.2	70	130			
Isopropyl Acetate	ND	< 200		1600	1620	µg/g	98.8	70	130			
Heptane	ND	< 200		1530	1610	µg/g	95.0	70	130			
1,4-Dioxane	ND	< 100		460	488	µg/g	94.1	70	130			
2-Ethoxyethanol	ND	< 30		169	167	µg/g	101.2	70	130			
Ethylene Glycol	ND	< 200		510	504	µg/g	101.2	70	130			
Toluene	ND	< 200		443	458	µg/g	91.9	70	130			
Ethylbenzene	ND	< 200		855	960	µg/g	88.3	70	130			
m,p-Xylene	ND	< 200		867	977	µg/g	88.7	70	130			
o-Xylene	ND	< 200		859	982	µg/g	87.5	70	130			
Cumene	ND	< 30		145	169	µg/g	85.8	70	130			



can be based





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Revision: Document ID:  
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QC - Sample Duplicate Sample ID: 21-013000-0001

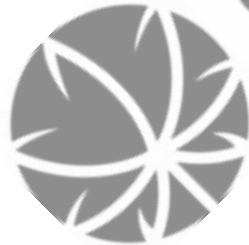
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	

**Abbreviations**

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

**Units of Measure:**

µg/g - Microgram per gram or ppm



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 Revision: Document ID:  
 Legacy ID: Effective:

**Terpenes Quality Control Results**

Method Reference: EPA 5035				Batch ID: 2110153					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	LCS	Units	LCS % Rec	Limits	Notes
a-pinene	<LOQ	< 200		447	500	µg/g	89%	70 - 130	
Camphene	<LOQ	< 200		465	500	µg/g	93%	70 - 130	
Sabinene	<LOQ	< 200		438	500	µg/g	88%	70 - 130	
b-Pinene	<LOQ	< 200		570	500	µg/g	114%	70 - 130	
b-Myrcene	<LOQ	< 200		428	500	µg/g	86%	70 - 130	
a-phellandrene	<LOQ	< 200		369	500	µg/g	74%	70 - 130	
d-3-Carene	<LOQ	< 200		463	500	µg/g	93%	70 - 130	
a-Terpinene	<LOQ	< 200		458	500	µg/g	92%	70 - 130	
p-Cymene	<LOQ	< 200		441	500	µg/g	88%	70 - 130	
D-Limonene	<LOQ	< 200		435	500	µg/g	87%	70 - 130	
Eucalyptol	<LOQ	< 200		454	500	µg/g	91%	70 - 130	
b-cis-Ocimene	<LOQ	< 67		138	167	µg/g	83%	70 - 130	
b-trans-Ocimene	<LOQ	< 133		297	333	µg/g	89%	70 - 130	
g-Terpinene	<LOQ	< 200		419	500	µg/g	84%	70 - 130	
Sabinene_Hydrate	<LOQ	< 200		458	500	µg/g	92%	70 - 130	
Terpinolene	<LOQ	< 200		448	500	µg/g	90%	70 - 130	
D-Fenchone	<LOQ	< 200		449	500	µg/g	90%	70 - 130	
Linalool	<LOQ	< 200		534	500	µg/g	107%	70 - 130	
Fenchol	<LOQ	< 200		456	500	µg/g	91%	70 - 130	
Camphor	<LOQ	< 200		449	500	µg/g	90%	70 - 130	
Isopulego	<LOQ	< 200		394	500	µg/g	79%	70 - 130	
Isoborneol	<LOQ	< 200		475	500	µg/g	95%	70 - 130	
Borneol	<LOQ	< 200		487	500	µg/g	97%	70 - 130	
DL-Menthol	<LOQ	< 200		453	500	µg/g	91%	70 - 130	
Terpineol	<LOQ	< 200		429	500	µg/g	86%	70 - 130	
Nerol	<LOQ	< 200		392	500	µg/g	78%	70 - 130	
Pulegone	<LOQ	< 200		508	500	µg/g	102%	70 - 130	
Geraniol	<LOQ	< 200		498	500	µg/g	100%	70 - 130	
Geranyl_Acetate	<LOQ	< 200		438	500	µg/g	88%	70 - 130	
a-Cedrene	<LOQ	< 200		457	500	µg/g	91%	70 - 130	
b-Caryophyllene	<LOQ	< 200		469	500	µg/g	94%	70 - 130	
a-Humulene	<LOQ	< 200		479	500	µg/g	96%	70 - 130	
Valenene	<LOQ	< 200		362	500	µg/g	72%	70 - 130	
cis-Nerolidol	<LOQ	< 200		433	500	µg/g	87%	70 - 130	
a-Farnesene	<LOQ	< 200		482	500	µg/g	96%	70 - 130	
trans-Nerolidol	<LOQ	< 200		473	500	µg/g	95%	70 - 130	
Caryophyllene_Oxide	<LOQ	< 200		424	500	µg/g	85%	70 - 130	
Guaiol	<LOQ	< 200		508	500	µg/g	102%	70 - 130	
Cedrol	<LOQ	< 200		473	500	µg/g	95%	70 - 130	
a-Bisabolol	<LOQ	< 200		456	500	µg/g	91%	70 - 130	

## Definitions

LOQ	Limit of Quantitation
LCS	Laboratory Control Sample
% REC	Percent Recovery



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



**Report Number:** 21-013080/D003.R000  
**Report Date:** 11/11/2021  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 11/05/21 11:28

Revision: Document ID:  
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**Terpenes Quality Control Results**

Method Reference: EPA 5035		Batch ID: 2110153					
Sample/Sample Duplicate		Sample ID: 21-013102-0001					
Analyte	Result	Org. Result	LOQ	Units	% RPD	LIMIT	Notes
a-pinene	1230	1230	197	µg/g	0%	< 20	
Camphene	289	256	197	µg/g	12%	< 20	
Sabinene	<LOQ	<LOQ	197	µg/g	0%	< 20	
b-Pinene	1600	1610	197	µg/g	1%	< 20	
b-Myrcene	2050	2000	197	µg/g	2%	< 20	
a-phellandrene	<LOQ	<LOQ	197	µg/g	0%	< 20	
d-3-Carene	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Terpinene	<LOQ	<LOQ	197	µg/g	0%	< 20	
p-Cymene	<LOQ	<LOQ	197	µg/g	0%	< 20	
D-Limonene	8600	8470	197	µg/g	2%	< 20	
Eucalyptol	241	235	197	µg/g	3%	< 20	
b-cis-Ocimene	<LOQ	<LOQ	65.6	µg/g	0%	< 20	
b-trans-Ocimene	<LOQ	<LOQ	131	µg/g	0%	< 20	
g-Terpinene	<LOQ	<LOQ	197	µg/g	0%	< 20	
Sabinene_Hydrate	<LOQ	<LOQ	197	µg/g	0%	< 20	
Terpinolene	<LOQ	<LOQ	197	µg/g	0%	< 20	
D-Fenchone	<LOQ	<LOQ	197	µg/g	0%	< 20	
Linalool	3620	3550	197	µg/g	2%	< 20	
Fenchol	1380	1390	197	µg/g	1%	< 20	
Camphor	<LOQ	<LOQ	197	µg/g	0%	< 20	
Isopulego	<LOQ	<LOQ	197	µg/g	0%	< 20	
Isoborneol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Borneol	338	331	197	µg/g	2%	< 20	
DL-Menthol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Terpineol	1510	1480	197	µg/g	2%	< 20	
Nerol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Pulegone	<LOQ	<LOQ	197	µg/g	0%	< 20	
Geraniol	<LOQ	<LOQ	197	µg/g	0%	< 20	
Geranyl_Acetate	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Cedrene	<LOQ	<LOQ	197	µg/g	0%	< 20	
b-Caryophyllene	11400	11100	197	µg/g	3%	< 20	
a-Humulene	5360	5230	197	µg/g	2%	< 20	
Valenene	<LOQ	<LOQ	197	µg/g	0%	< 20	
cis-Nerolidol	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Farnesene	1270	1250	197	µg/g	2%	< 20	
trans-Nerolidol	1310	1280	197	µg/g	2%	< 20	
Caryophyllene_Oxide	638	647	197	µg/g	1%	< 20	
Guaiol	8510	8350	197	µg/g	2%	< 20	
Cedrol	<LOQ	<LOQ	197	µg/g	0%	< 20	
a-Bisabolol	536	501	197	µg/g	7%	< 20	

Definitions

RPD Relative Percent Difference



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	Quantitation 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.



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