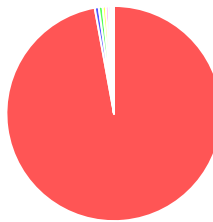




**Customer:** GVB Oregon  
**Product identity:** Comp FSD GVL-TST801  
**Client/Metric ID:** .  
**Laboratory ID:** 24-004201-0002

### Summary

**Potency:**

Analyte	Result (%)		
CBD	85.0	 <ul style="list-style-type: none"> <li>● CBD</li> <li>● CBDV</li> <li>● CBC</li> <li>● CBE</li> <li>● CBT</li> <li>● 9-THC</li> <li>● CBG</li> <li>● CBN</li> </ul>	CBD-Total 85.0%
CBDV	0.530		THC-Total 0.282%
CBC	0.503		(Reported in percent of total sample)
CBE	0.419		
CBT	0.339		
Δ9-THC	0.282		
CBG	0.257		
CBN	0.189		

**Residual Solvents:**

All analytes passing and less than LOQ.

**Pesticides:**

All analytes passing and less than LOQ.

**Metals:**

Less than LOQ for all analytes.

**Microbiology:**

Less than LOQ for all analytes.



**Customer:** GVB Oregon  
United States of America (USA)

**Product identity:** Comp FSD GVL-TST801

**Client/Metric ID:** .

**Sample Date:**

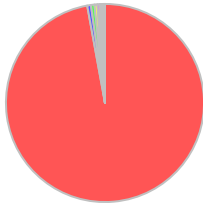
**Laboratory ID:** 24-004201-0002

**Evidence of Cooling:** No

**Temp:** 18.4 °C

**Relinquished by:** shipping

### Sample Results

Potency	Method: J AOAC 2015 V98-6 (mod)			Units %	Batch: 2403017	Analyze: 4/19/24 5:58:00 PM
Analyte	As Received	Dry weight	LOQ	Notes		
CBC	0.503		0.0679		 <ul style="list-style-type: none"> <li><span style="color: red;">●</span> CBD</li> <li><span style="color: blue;">●</span> CBDV</li> <li><span style="color: green;">●</span> CBC</li> <li><span style="color: yellow;">●</span> CBE</li> <li><span style="color: magenta;">●</span> CBT</li> <li><span style="color: cyan;">●</span> 9-THC</li> <li><span style="color: grey;">●</span> CBG</li> <li><span style="color: red;">●</span> CBN</li> </ul>	
CBC-A	< LOQ		0.0679			
CBC-Total	0.503		0.128			
CBD <sup>±</sup>	85.0		0.679			
CBD-A <sup>±</sup>	< LOQ		0.0679			
CBD-Total	85.0		0.739			
CBDV	0.530		0.0679			
CBDV-A	< LOQ		0.0679			
CBDV-Total	0.530		0.127			
CBE	0.419		0.0679			
CBG	0.257		0.0679			
CBG-A	< LOQ		0.0679			
CBG-Total	0.257		0.127			
CBL	< LOQ		0.0679			
CBL-A	< LOQ		0.0679			
CBL-Total	< LOQ		0.128			
CBN	0.189		0.0679			
CBT	0.339		0.0679			
Δ10-THC-9R	< LOQ		0.0679			
Δ10-THC-9S	< LOQ		0.0679			
Δ10-THC-Total	< LOQ		0.136			
Δ8-THC <sup>±</sup>	< LOQ		0.0679			
Δ8-THCV	< LOQ		0.0679			
Δ9-THC <sup>±</sup>	0.282		0.0679			
delta-9-THCP	< LOQ		0.0679			
exo-THC	< LOQ		0.0679			
THC-A <sup>±</sup>	< LOQ		0.0679			
THC-Total	0.282		0.128			
THCV	< LOQ		0.0679			
THCV-A	< LOQ		0.0679			
THCV-Total	< LOQ		0.127			
<b>Total Cannabinoids</b>	<b>87.5</b>					



**Microbiology**

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2403123	04/27/24 AOAC 991.14 (Petrifilm)		
Total Coliforms	< LOQ		cfu/g	10	2403123	04/27/24 AOAC 991.14 (Petrifilm)		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2403124	04/28/24 AOAC 2014.05 (RAPID)		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2403124	04/28/24 AOAC 2014.05 (RAPID)		

**Solvents** Method: Residual Solvents by HS-GC-MS<sup>b</sup> Units µg/g Batch 2403240 Analyze 04/29/24 02:40 PM

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane <sup>‡</sup>	< LOQ		100			2-Butanol <sup>‡</sup>	< LOQ		200		
2-Ethoxyethanol <sup>‡</sup>	< LOQ		30.0			2-Methylbutane (Isopentane) <sup>‡</sup>	< LOQ		200		
2-Methylpentane <sup>‡</sup>	< LOQ		30.0			2-Propanol (IPA) <sup>‡</sup>	< LOQ		200		
2,2-Dimethylbutane <sup>‡</sup>	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane) <sup>‡</sup>	< LOQ		200		
2,3-Dimethylbutane <sup>‡</sup>	< LOQ		30.0			3-Methylpentane <sup>‡</sup>	< LOQ		30.0		
Acetone <sup>‡</sup>	< LOQ		200			Acetonitrile <sup>‡</sup>	< LOQ		100		
Benzene <sup>‡</sup>	< LOQ		1.00			Butanes (sum) <sup>‡</sup>	< LOQ		400		
Cyclohexane <sup>‡</sup>	< LOQ		200			Ethyl acetate <sup>‡</sup>	< LOQ		200		
Ethyl benzene	< LOQ		200			Ethyl ether <sup>‡</sup>	< LOQ		200		
Ethylene glycol <sup>‡</sup>	< LOQ		200			Ethylene oxide <sup>‡</sup>	< LOQ		20.0		
Hexanes (sum) <sup>‡</sup>	< LOQ		150			Isopropyl acetate <sup>‡</sup>	< LOQ		200		
Isopropylbenzene (Cumene) <sup>‡</sup>	< LOQ		30.0			m,p-Xylene <sup>‡</sup>	< LOQ		200		
Methanol <sup>‡</sup>	< LOQ		200			Methylene chloride <sup>‡</sup>	< LOQ		60.0		
Methylpropane (Isobutane) <sup>‡</sup>	< LOQ		200			n-Butane <sup>‡</sup>	< LOQ		200		
n-Heptane <sup>‡</sup>	< LOQ		200			n-Hexane <sup>‡</sup>	< LOQ		30.0		
n-Pentane <sup>‡</sup>	< LOQ		200			o-Xylene <sup>‡</sup>	< LOQ		200		
Pentanes (sum)	< LOQ		600			Propane <sup>‡</sup>	< LOQ		200		
Tetrahydrofuran <sup>‡</sup>	< LOQ		100			Toluene <sup>‡</sup>	< LOQ		100		
Total Xylenes <sup>‡</sup>	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ		600		



Pesticides					Method: AOAC 2007.01 & EN 15662 (mod)	Units mg/kg	Batch 2403288	Analyze 04/30/24 02:26 PM			
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin <sup>‡</sup>	< LOQ		0.250			Acephate	< LOQ		0.200		
Acequinocyl <sup>‡</sup>	< LOQ		1.00			Acetamiprid	< LOQ		0.100		
Aldicarb <sup>‡</sup>	< LOQ		0.200			Azoxystrobin <sup>‡</sup>	< LOQ		0.100		
Bifenazate <sup>‡</sup>	< LOQ		0.100			Bifenthrin <sup>‡</sup>	< LOQ		0.100		
Boscalid <sup>‡</sup>	< LOQ		0.200			Carbaryl <sup>‡</sup>	< LOQ		0.100		
Carbofuran <sup>‡</sup>	< LOQ		0.100			Chlorantraniliprole <sup>‡</sup>	< LOQ		0.100		
Chlorfenapyr <sup>‡</sup>	< LOQ		0.500			Chlorpyrifos-ethyl <sup>‡</sup>	< LOQ		0.100		
Clofentezine <sup>‡</sup>	< LOQ		0.100			Cyfluthrin (sum ) <sup>‡</sup>	< LOQ		0.500		
Cypermethrin and	< LOQ		0.500			Daminozide <sup>‡</sup>	< LOQ		0.500		
Diazinon <sup>‡</sup>	< LOQ		0.100			Dichlorvos <sup>‡</sup>	< LOQ		0.500		
Dimethoate <sup>‡</sup>	< LOQ		0.100			Ethoprophos <sup>‡</sup>	< LOQ		0.100		
Etofenprox <sup>‡</sup>	< LOQ		0.200			Etoxazole <sup>‡</sup>	< LOQ		0.100		
Fenoxycarb <sup>‡</sup>	< LOQ		0.100			Fenpyroximate <sup>‡</sup>	< LOQ		0.200		
Fipronil <sup>‡</sup>	< LOQ		0.200			Flonicamid <sup>‡</sup>	< LOQ		0.400		
Fludioxonil <sup>‡</sup>	< LOQ		0.200			Hexythiazox <sup>‡</sup>	< LOQ		0.400		
Imazalil <sup>‡</sup>	< LOQ		0.100			Imidacloprid <sup>‡</sup>	< LOQ		0.200		
Kresoxim-methyl <sup>‡</sup>	< LOQ		0.200			Malathion <sup>‡</sup>	< LOQ		0.100		
Metalaxyl <sup>‡</sup>	< LOQ		0.100			Methiocarb <sup>‡</sup>	< LOQ		0.100		
Methomyl <sup>‡</sup>	< LOQ		0.200			MGK-264 <sup>‡</sup>	< LOQ		0.100		
Myclobutanil <sup>‡</sup>	< LOQ		0.100			Naled <sup>‡</sup>	< LOQ		0.250		
Oxamyl <sup>‡</sup>	< LOQ		0.500			Paclotubrazole <sup>‡</sup>	< LOQ		0.200		
Parathion-Methyl <sup>‡</sup>	< LOQ		0.100			Permethrin and isomers	< LOQ		0.100		
Phosmet <sup>‡</sup>	< LOQ		0.100			Piperonyl butoxide <sup>‡</sup>	< LOQ		1.00		
Prallethrin <sup>‡</sup>	< LOQ		0.100			Propiconazole <sup>‡</sup>	< LOQ		0.200		
Propoxur <sup>‡</sup>	< LOQ		0.100			Pyrethrin I (total) <sup>‡</sup>	< LOQ		0.500		
Pyridaben <sup>‡</sup>	< LOQ		0.100			Spinosad <sup>‡</sup>	< LOQ		0.100		
Spiromesifen <sup>‡</sup>	< LOQ		0.100			Spirotetramat <sup>‡</sup>	< LOQ		0.100		
Spiroxamine <sup>‡</sup>	< LOQ		0.200			Tebuconazole <sup>‡</sup>	< LOQ		0.200		
Thiacloprid <sup>‡</sup>	< LOQ		0.100			Thiamethoxam <sup>‡</sup>	< LOQ		0.100		
Trifloxystrobin <sup>‡</sup>	< LOQ		0.100								

Metals										
Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes	
Arsenic <sup>‡</sup>	< LOQ		mg/kg	0.0822	2403232	04/26/24	AOAC 2013.06 (mod.) <sup>p</sup>			
Cadmium <sup>‡</sup>	< LOQ		mg/kg	0.0822	2403232	04/26/24	AOAC 2013.06 (mod.) <sup>p</sup>			
Lead <sup>‡</sup>	< LOQ		mg/kg	0.0822	2403232	04/26/24	AOAC 2013.06 (mod.) <sup>p</sup>			
Mercury <sup>‡</sup>	< LOQ		mg/kg	0.0411	2403232	04/26/24	AOAC 2013.06 (mod.) <sup>p</sup>			



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



**Report Number:** 24-004201/D004.R000  
**Report Date:** 05/02/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/17/24 11:15

**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.

Ⓐ = ISO/IEC 17025:2017 accredited method.

Ⓜ = TNI accredited analyte.

**Units of Measure**

cfu/g = Colony forming units per gram

µg/g = Microgram per gram

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

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner  
General Manager



12423 NE Whitaker Way  
Portland, OR 97230  
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**Received:** 04/17/24 11:15



Hemp & Cannabis  
Chain of Custody

GVB-Oregon-1713299286

ORELAP ID: OR100028 ANAB ISO 17025 ID: AT1508

Company Details Company: <u>GVB Oregon</u> Contact: <u>Bharath Pogula</u> Street Address: <u>212 NE North St.</u> City, State, Zip: <u>Grass Valley, OR 97029</u> Email: <u>testing@gvbbiopharma.com</u> Contact Phone: <u>9737225455</u> Company Phone: <u>973-722-5455</u> Billing Information Billing Phone: <u>973-722-5455</u> Billing Email: <u>testing@gvbbiopharma.com</u>			Project Details Turnaround Time: <u>3 Business Days   Surcharges Apply</u> Relinquishment   Sampling, Courier & Shipping Options: <u>Drop Off at Laboratory</u> Compliance: <u>Research and Development (RND)</u> Receipt Information Pre-Log Storage: <u>Canna Shelves</u> Sample Condition: <u>Satisfactory</u>			Testing H0010L - Potency (Cannabis, Low LOC) H0010 - Potency Cannabis (Basic+Expanded)	
#	Sample Name	Material	Amount Provided	Reporting Unit	Additional Test Requests and Sample Comments		
1	UK BSD G/L-TST800	Cannabinoid Extract	20 g	% (by mass/mass)	Please retain the sample for further testing.	✓	
2	Comp FSD G/L-TST801	Cannabinoid Extract	20 g	% (by mass/mass)	Please retain the sample for further testing.		✓

Relinquished By	Date	Time	Received By	Date	Time	Received Temp., °C	Evidence of Cooling?
<i>Bharath Pogula</i>	<i>04/16/2024</i>	<i>13:28</i>	<i>evm</i>	<i>04/17/2024</i>	<i>11:15</i>	<i>18.40</i>	<i>No</i>

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the [current terms of services](#) associated with this COC. By signing "Relinquished by" you are agreeing to these terms.

Columbia Laboratories  
12423 NE Whitaker Way  
Portland, OR 97230

P: (503) 254-1794  
[info@columbiolaboratories.com](mailto:info@columbiolaboratories.com)

Page 1 of 1  
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12423 NE Whitaker Way  
 Portland, OR 97230  
 503-254-1794

**Report Number:** 24-004201/D004.R000  
**Report Date:** 05/02/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/17/24 11:15



Revision: 4 Document ID: 7148  
 Legacy ID: Worksheet Validated 04/20/2021

**Laboratory Quality Control Results**

**J AOAC 2015 V98-6** **Batch ID: 2403017**

**Laboratory Control Sample**

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0742	0.0748	%	99.2	80.0 - 120	Acceptable	
CBDV	2	0.0794	0.0799	%	99.4	80.0 - 120	Acceptable	
CBE	2	0.0713	0.0804	%	88.7	80.0 - 120	Acceptable	
CBDA	1	0.0714	0.0711	%	100	90.0 - 110	Acceptable	
CBGA	1	0.0702	0.0706	%	99.5	80.0 - 120	Acceptable	
CBG	1	0.0730	0.0793	%	92.0	80.0 - 120	Acceptable	
CBD	1	0.0767	0.0762	%	101	90.0 - 110	Acceptable	
THCV	2	0.0754	0.0822	%	91.8	80.0 - 120	Acceptable	
d8THCV	2	0.0513	0.0522	%	98.2	80.0 - 120	Acceptable	
THCVA	2	0.0813	0.0732	%	111	80.0 - 120	Acceptable	
CBN	1	0.0706	0.0736	%	95.9	80.0 - 120	Acceptable	
exo-THC	2	0.0742	0.0820	%	90.4	80.0 - 120	Acceptable	
d9THC	1	0.0718	0.0789	%	91.0	90.0 - 110	Acceptable	
d8THC	1	0.0711	0.0692	%	103	90.0 - 110	Acceptable	
9S-d10THC	1	0.0710	0.0741	%	95.8	80.0 - 120	Acceptable	
CBL	2	0.0726	0.0811	%	89.5	80.0 - 120	Acceptable	
9R-d10THC	1	0.0661	0.0721	%	91.7	80.0 - 120	Acceptable	
CBC	2	0.0798	0.0814	%	98.0	80.0 - 120	Acceptable	
THCA	1	0.0670	0.0704	%	95.1	90.0 - 110	Acceptable	
CBCA	2	0.0764	0.0755	%	101	80.0 - 120	Acceptable	
CBLA	2	0.0793	0.0797	%	99.5	80.0 - 120	Acceptable	
d9THCP	2	0.0709	0.0762	%	93.0	80.0 - 120	Acceptable	
CBT	2	0.0712	0.0805	%	88.5	80.0 - 120	Acceptable	

**Method Blank**

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBDV	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBE	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBDA	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBGA	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBG	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBD	<LOQ	0.00726	%	< 0.00726	Acceptable	
THCV	<LOQ	0.00726	%	< 0.00726	Acceptable	
d8THCV	<LOQ	0.00726	%	< 0.00726	Acceptable	
THCVA	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBN	<LOQ	0.00726	%	< 0.00726	Acceptable	
exo-THC	<LOQ	0.00726	%	< 0.00726	Acceptable	
d9THC	<LOQ	0.00726	%	< 0.00726	Acceptable	
d8THC	<LOQ	0.00726	%	< 0.00726	Acceptable	
9S-d10THC	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBL	<LOQ	0.00726	%	< 0.00726	Acceptable	
9R-d10THC	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBC	<LOQ	0.00726	%	< 0.00726	Acceptable	
THCA	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBCA	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBLA	<LOQ	0.00726	%	< 0.00726	Acceptable	
d9THCP	<LOQ	0.00726	%	< 0.00726	Acceptable	
CBT	<LOQ	0.00726	%	< 0.00726	Acceptable	

**Abbreviations**

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

**Units of Measure:**

% - Percent



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



**Report Number:** 24-004201/D004.R000  
**Report Date:** 05/02/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/17/24 11:15

Revision: 4 Document ID: 7148  
 Legacy ID: Worksheet Validated 04/20/2021

**Laboratory Quality Control Results**

AOAC 2015 V98-6		Batch ID: 2403017						
Sample Duplicate		Sample ID: 22-004270-0007						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBDV	0.487	0.473	0.0675	%	2.99	< 20	Acceptable	
CBE	0.268	0.273	0.0675	%	2.12	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBG	0.167	0.164	0.0675	%	1.94	< 20	Acceptable	
CBD	89.4	89.2	0.0675	%	0.218	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBN	0.493	0.492	0.0675	%	0.210	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBC	0.904	0.900	0.0675	%	0.491	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.0675	%	NA	< 20	Acceptable	
CBT	0.541	0.552	0.0675	%	2.00	< 20	Acceptable	

**Abbreviations**

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

**Units of Measure:**

% - Percent





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



**Report Number:** 24-004201/D004.R000  
**Report Date:** 05/02/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/17/24 11:15

Revision: 2 Document ID: 7087  
 Legacy ID: CFL-E33Effective:

Laboratory Quality Control Results

Residual Solvents				Batch ID: 2403240					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		549	584	µg/g	94.0	60 - 120	
Isobutane	ND	< 200		674	767	µg/g	87.9	60 - 120	
Butane	ND	< 200		673	782	µg/g	86.1	60 - 120	
2,2-Dimethylpropane	ND	< 200		848	939	µg/g	90.3	60 - 120	
Methanol	ND	< 200		1620	1600	µg/g	101.3	60 - 120	
Ethylene Oxide	ND	< 30		54.5	57.1	µg/g	95.4	60 - 120	
2-Methylbutane	ND	< 200		1470	1600	µg/g	91.9	60 - 120	
Pentane	ND	< 200		1500	1600	µg/g	93.8	60 - 120	
Ethanol	ND	< 200		1480	1600	µg/g	92.5	70 - 130	
Ethyl Ether	ND	< 200		1520	1600	µg/g	95.0	60 - 120	
2,2-Dimethylbutane	ND	< 30		156	163	µg/g	95.7	60 - 120	
Acetone	ND	< 200		1540	1610	µg/g	95.7	60 - 120	
2-Propanol	ND	< 200		1480	1600	µg/g	92.5	60 - 120	
Ethyl Formate	ND	< 500		1630	1620	µg/g	100.6	70 - 130	
Acetonitrile	ND	< 100		428	481	µg/g	89.0	60 - 120	
Methyl Acetate	ND	< 500		1510	1610	µg/g	93.8	70 - 130	
2,3-Dimethylbutane	ND	< 30		171	161	µg/g	106.2	60 - 120	
Dichloromethane	ND	< 60		471	481	µg/g	97.9	60 - 120	
2-Methylpentane	ND	< 30		152	162	µg/g	93.8	60 - 120	
MTBE	ND	< 500		1480	1610	µg/g	91.9	70 - 130	
3-Methylpentane	ND	< 30		161	163	µg/g	98.8	60 - 120	
Hexane	ND	< 30		167	163	µg/g	102.5	60 - 120	
1-Propanol	ND	< 500		1610	1600	µg/g	100.6	70 - 130	
Methylethylketone	ND	< 500		1620	1610	µg/g	100.6	70 - 130	
Ethyl acetate	ND	< 200		1610	1610	µg/g	100.0	60 - 120	
2-Butanol	ND	< 200		1610	1600	µg/g	100.6	60 - 120	
Tetrahydrofuran	ND	< 100		494	487	µg/g	101.4	60 - 120	
Cyclohexane	ND	< 200		1640	1610	µg/g	101.9	60 - 120	
2-methyl-1-propanol	ND	< 500		1710	1610	µg/g	106.2	70 - 130	
Benzene	ND	< 1		4.76	4.88	µg/g	97.5	60 - 120	
Isopropyl Acetate	ND	< 200		1620	1610	µg/g	100.6	60 - 120	
Heptane	ND	< 200		1620	1600	µg/g	101.3	60 - 120	
1-Butanol	ND	< 500		1650	1610	µg/g	102.5	70 - 130	
Propyl Acetate	ND	< 500		1690	1610	µg/g	105.0	70 - 130	
1,4-Dioxane	ND	< 100		468	484	µg/g	96.7	60 - 120	
2-Ethoxyethanol	ND	< 30		150	162	µg/g	92.6	60 - 120	
Methylisobutylketone	ND	< 500		1690	1630	µg/g	103.7	70 - 130	
3-Methyl-1-butanol	ND	< 500		1650	1610	µg/g	102.5	70 - 130	
Ethylene Glycol	ND	< 200		352	496	µg/g	71.0	60 - 120	
Toluene	ND	< 100		507	486	µg/g	104.3	60 - 120	
Isobutyl Acetate	ND	< 500		1650	1610	µg/g	102.5	70 - 130	
1-Pentanol	ND	< 500		1650	1600	µg/g	103.1	70 - 130	
Butyl Acetate	ND	< 500		1680	1600	µg/g	105.0	70 - 130	
Ethylbenzene	ND	< 200		957	961	µg/g	99.6	60 - 120	
m,p-Xylene	ND	< 200		969	973	µg/g	99.6	60 - 120	
o-Xylene	ND	< 200		955	963	µg/g	99.2	60 - 120	
Cumene	ND	< 30		161	164	µg/g	98.2	60 - 120	
Anisole	ND	< 500		1650	1600	µg/g	103.1	70 - 130	
DMSO	ND	< 500		1460	1610	µg/g	90.7	70 - 130	
1,2-dimethoxyethane	ND	< 50		183	170	µg/g	107.6	70 - 130	
Triethylamine	ND	< 500		1210	1600	µg/g	75.6	70 - 130	
N,N-dimethylformamide	ND	< 150		463	482	µg/g	96.1	70 - 130	
N,N-dimethylacetamide	ND	< 150		499	488	µg/g	102.3	70 - 130	
Pyridine	ND	< 50		164	164	µg/g	100.0	70 - 130	
Sulfolane	ND	< 50		151	169	µg/g	89.3	70 - 130	
1,2-Dichloroethane	ND	< 1		1.04	1	µg/g	104.0	70 - 130	
Chloroform	ND	< 1		1.1	1	µg/g	110.0	70 - 130	
Trichloroethylene	ND	< 1		1.02	1	µg/g	102.0	70 - 130	
1,1-Dichloroethane	ND	< 1		1.01	1	µg/g	101.0	70 - 130	

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 Columbia Laboratories 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 retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.



Revision: 2 Document ID: 7087

Legacy ID: CFL-E33Effective:

## QC- Sample Duplicate

Sample ID: 24-004478-0001

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	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	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	
MTBE	ND	ND	500	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	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methylethylketone	ND	ND	500	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	
2-methyl-1-propanol	ND	ND	500	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-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	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	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	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	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	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



### Laboratory Pesticide Quality Control Results

AOAC2007.1 &EN 15662		Units: mg/Kg			Batch ID: 2403288			
Method Bank		Laboratory Control Sample						
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spke	LCS% Re	Limits	Notes
Abamectin	0.000	< 0.250		0.973	1.000	97.3	50.0	150
Acephate	0.000	< 0.200		0.808	0.800	101.0	60.0	120
Acequinocyl	0.000	< 1.000		3.766	4.000	94.1	40.0	160
Acetamiprid	0.000	< 0.100		0.353	0.400	88.2	60.0	120
Aldicarb	0.000	< 0.200		0.647	0.800	80.8	60.0	120
Azoxystrobin	0.000	< 0.100		0.399	0.400	99.8	60.0	120
Bifenazate	0.002	< 0.100		0.381	0.400	95.2	60.0	120
Bifenthrin	0.000	< 0.100		0.325	0.400	81.2	50.0	150
Boscalid	0.000	< 0.200		0.682	0.800	85.2	60.0	120
Carbaryl	0.000	< 0.100		0.330	0.400	82.6	60.0	120
Carbofuran	0.000	< 0.100		0.326	0.400	81.6	60.0	120
Chlorantraniliprole	0.000	< 0.100		0.338	0.400	84.4	60.0	120
Chlorfenapyr	0.000	< 0.500		2.866	2.000	143.3	60.0	120
Chlorpyrifos	0.000	< 0.100		0.365	0.400	91.2	60.0	120
Cofentozine	0.000	< 0.100		0.352	0.400	88.1	60.0	120
Cyfluthrin	0.000	< 0.500		1.525	2.000	76.2	50.0	150
Cypermethrin	0.000	< 0.500		1.737	2.000	86.9	50.0	150
Daminozide	0.076	< 0.500		1.827	2.000	91.4	60.0	120
Diazinon	0.000	< 0.100		0.346	0.400	86.5	60.0	120
Dichlorvos	0.000	< 0.500		1.399	2.000	69.9	60.0	120
Dimethoate	0.000	< 0.100		0.316	0.400	78.9	60.0	120
Ethoprophos	0.000	< 0.100		0.352	0.400	88.1	60.0	120
Etofenprox	0.000	< 0.200		0.698	0.800	87.3	50.0	150
Etoazole	0.000	< 0.100		0.351	0.400	87.7	60.0	120
Fenoxycarb	0.000	< 0.100		0.356	0.400	89.1	60.0	120
Fenpyroximate	0.000	< 0.200		0.683	0.800	85.4	60.0	120
Fipronil	0.000	< 0.200		0.634	0.800	79.2	60.0	120
Fonicamid	0.000	< 0.250		1.002	1.000	100.2	60.0	120
Fludioxonil	0.000	< 0.200		0.712	0.800	89.0	50.0	150
Hexythiazox	0.000	< 0.250		0.820	1.000	82.0	60.0	120
Imazail	0.000	< 0.100		0.346	0.400	86.5	60.0	120
Imidacloprid	0.000	< 0.200		0.665	0.800	83.1	60.0	120
Kresoxim-methyl	0.000	< 0.200		0.644	0.800	80.4	60.0	120
Malathion	0.000	< 0.100		0.344	0.400	86.0	60.0	120
Metaxyl	0.000	< 0.100		0.341	0.400	85.3	60.0	120
Methiocarb	0.000	< 0.100		0.308	0.400	76.9	60.0	120
Methomyl	0.000	< 0.200		0.759	0.800	94.9	60.0	120
MGK-264	0.000	< 0.100		0.364	0.400	91.1	50.0	150
Myclobutanil	0.000	< 0.100		0.313	0.400	78.3	60.0	120
Naled	0.000	< 0.250		0.826	1.000	82.6	50.0	150
Oxamyl	0.000	< 0.500		1.541	2.000	77.1	60.0	120
Padobutrazole	0.000	< 0.200		0.727	0.800	90.8	60.0	120
Parathion-Methyl	0.000	< 0.100		0.514	0.400	128.4	50.0	150
Permethrin	0.000	< 0.100		0.344	0.400	86.0	50.0	150
Phosmet	0.000	< 0.100		0.368	0.400	92.1	50.0	150
Piperonyl butoxide	0.000	< 0.500		1.436	2.000	71.8	60.0	120
Prallethrin	0.000	< 0.100		0.338	0.400	84.4	60.0	120
Propiconazole	0.000	< 0.200		0.639	0.800	79.8	60.0	120
Propoxur	0.000	< 0.100		0.331	0.400	82.7	60.0	120
Pyrethrin (Summe)	0.001	< 0.100		0.402	0.488	82.3	60.0	120
Pyridaben	0.000	< 0.100		0.349	0.400	87.1	50.0	150
Spinosad	0.000	< 0.100		0.342	0.388	88.1	50.0	150
Spiromesfen	0.000	< 0.100		0.348	0.400	87.0	60.0	120
Spirotetramat	0.000	< 0.100		0.341	0.400	85.3	60.0	120
Spiroxamine	0.000	< 0.200		0.636	0.800	79.5	60.0	120



Laboratory Pesticide Quality Control Results

AOAC2007.1 &EN 15662		Units: mg/Kg				Batch ID 2403288				
Matrix Spike/Matrix Spike Duplicate Recoveries						Sample ID: 24-0045580002				
Analyte	Result	MSR <sub>es</sub>	MSD <sub>Res</sub>	Spike	RPD%	Limit	MS% R <sub>e</sub>	MSD % R <sub>e</sub>	Limits	Notes
Abamectin	0.000	0.840	0.800	1.000	5.0%	< 30	84.0%	80.0%	50 - 150	
Acephate	0.089	0.833	0.842	0.800	1.2%	< 30	93.0%	94.1%	50 - 150	
Acequinocyl	0.000	3.402	3.470	4.000	2.0%	< 30	85.1%	86.7%	50 - 150	
Acetamiprid	0.000	0.311	0.344	0.400	10.2%	< 30	77.7%	86.1%	50 - 150	
Aldicarb	0.000	0.604	0.633	0.800	4.7%	< 30	75.5%	79.2%	50 - 150	
Azoxystrobin	0.000	0.313	0.328	0.400	4.6%	< 30	78.2%	81.9%	50 - 150	
Bifenazate	0.002	0.328	0.360	0.400	9.4%	< 30	81.4%	89.5%	50 - 150	
Bifenthrin	0.000	0.169	0.158	0.400	6.8%	< 30	42.2%	39.4%	50 - 150	Q
Boscalid	0.000	0.636	0.528	0.800	18.5%	< 30	79.5%	66.0%	50 - 150	
Carbaryl	0.000	0.280	0.311	0.400	10.4%	< 30	70.1%	77.7%	50 - 150	
Carbofuran	0.000	0.278	0.300	0.400	7.8%	< 30	69.5%	75.1%	50 - 150	
Chlorantraniliprole	0.000	0.316	0.286	0.400	10.1%	< 30	78.9%	71.4%	50 - 150	
Chlorfenapyr	0.000	2.880	2.955	2.000	3.9%	< 30	144.0%	149.7%	50 - 150	
Chlorpyrifos	0.000	0.328	0.367	0.400	11.0%	< 30	82.1%	91.7%	50 - 150	
Cofentozine	0.000	0.318	0.309	0.400	2.8%	< 30	79.4%	77.2%	50 - 150	
Cyfluthrin	0.000	1.329	0.949	2.000	33.3%	< 30	66.5%	47.5%	30 - 150	R
Cypermethrin	0.000	1.163	1.173	2.000	0.9%	< 30	58.1%	58.6%	50 - 150	
Daminozide	0.023	1.791	2.013	2.000	11.8%	< 30	88.4%	99.5%	30 - 150	
Diazinon	0.000	0.324	0.338	0.400	4.5%	< 30	80.9%	84.6%	50 - 150	
Dichlorvos	0.000	1.806	1.616	2.000	11.1%	< 30	90.3%	80.8%	50 - 150	
Dimethoate	0.000	0.283	0.306	0.400	7.8%	< 30	70.8%	76.5%	50 - 150	
Ethoprophos	0.000	0.299	0.316	0.400	5.7%	< 30	74.7%	79.0%	50 - 150	
Etofenprox	0.000	0.648	0.636	0.800	2.1%	< 30	81.0%	79.3%	50 - 150	
Etoxazole	0.000	0.311	0.305	0.400	2.0%	< 30	77.7%	76.2%	50 - 150	
Fenoxycarb	0.000	0.324	0.341	0.400	5.2%	< 30	80.9%	85.2%	50 - 150	
Fenpyroximate	0.000	0.599	0.549	0.800	8.7%	< 30	74.9%	68.7%	50 - 150	
Fipronil	0.000	0.694	0.662	0.800	6.3%	< 30	86.8%	81.5%	50 - 150	
Fonicamid	0.000	0.853	0.921	1.000	7.7%	< 30	85.3%	92.1%	50 - 150	
Fludioxonil	0.000	0.661	0.765	0.800	17.1%	< 30	82.7%	98.1%	50 - 150	
Hexythiazox	0.000	0.549	0.516	1.000	6.1%	< 30	54.9%	51.6%	50 - 150	
Imazail	0.000	0.295	0.335	0.400	12.6%	< 30	73.8%	83.8%	50 - 150	
Imidacloprid	0.000	0.629	0.641	0.800	2.0%	< 30	78.6%	80.2%	50 - 150	
Kresoxim-methyl	0.000	0.577	0.632	0.800	9.1%	< 30	72.1%	79.0%	50 - 150	
Malathion	0.000	0.324	0.317	0.400	1.9%	< 30	80.9%	79.3%	50 - 150	
Metaxyl	0.000	0.313	0.308	0.400	1.7%	< 30	78.3%	77.0%	50 - 150	
Methiocarb	0.000	0.276	0.306	0.400	10.1%	< 30	69.1%	76.5%	50 - 150	
Methomyl	0.000	0.651	0.747	0.800	13.8%	< 30	81.3%	93.4%	50 - 150	
MGK-264	0.000	0.326	0.344	0.400	5.2%	< 30	81.6%	86.0%	50 - 150	
Myclobutanil	0.000	0.329	0.336	0.400	2.1%	< 30	82.4%	84.1%	50 - 150	
Naled	0.000	0.758	0.837	1.000	10.0%	< 30	75.8%	83.7%	50 - 150	
Oxamyl	0.000	1.529	1.507	2.000	1.5%	< 30	76.5%	75.3%	50 - 150	
Padobutrazole	0.000	0.664	0.629	0.800	5.3%	< 30	82.9%	78.7%	50 - 150	
Parathion-Methyl	0.123	0.387	0.336	0.400	21.5%	< 30	66.0%	53.2%	30 - 150	
Permethrin	0.000	0.322	0.336	0.400	4.0%	< 30	80.4%	83.7%	50 - 150	
Phosmet	0.000	0.304	0.325	0.400	6.7%	< 30	76.0%	81.3%	50 - 150	
Piperonyl butoxide	0.000	1.270	1.438	2.000	12.3%	< 30	63.5%	71.9%	50 - 150	
Prallethrin	0.000	0.288	0.317	0.400	9.5%	< 30	72.0%	79.2%	50 - 150	
Propiconazole	0.000	0.581	0.642	0.800	10.0%	< 30	72.6%	80.3%	50 - 150	
Propoxur	0.000	0.298	0.332	0.400	10.9%	< 30	74.5%	83.1%	50 - 150	
Pyrethrin (Summe)	0.000	0.342	0.319	0.488	7.0%	< 30	70.0%	65.3%	50 - 150	
Pyridaben	0.000	0.400	0.363	0.400	9.6%	< 30	100.0%	90.8%	50 - 150	
Spinosad	0.000	0.339	0.344	0.388	1.5%	< 30	87.4%	88.7%	50 - 150	
Spiromesifen	0.000	0.309	0.283	0.400	9.0%	< 30	77.4%	70.7%	50 - 150	
Spirotetramat	0.000	0.313	0.338	0.400	7.9%	< 30	78.2%	84.6%	50 - 150	
Spiroxamine	0.000	0.628	0.684	0.800	8.6%	< 30	78.5%	85.5%	50 - 150	



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



**Report Number:** 24-004201/D004.R000  
**Report Date:** 05/02/2024  
**ORELAP#:** OR100028  
**Purchase Order:**  
**Received:** 04/17/24 11:15





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.