Columbia LABORATORIES
A Tentamus Company

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

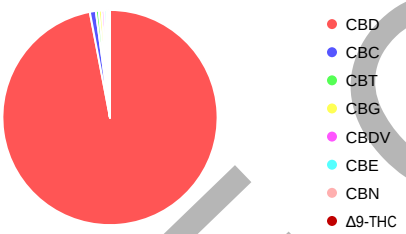
Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Customer:
Product identity: Full Spectrum Compliant CBD Distillate V3 GVL-TST582
Client/Metrc ID: .
Laboratory ID: 23-003182-0005

Summary

Potency:

Analyte	Result (%)
CBD	89.1
CBC	0.828
CBT	0.409
CBG	0.398
CBDV	0.346
CBE	0.312
CBN	0.258
Δ9-THC	0.215



CBD-Total 89.1%

THC-Total 0.215%

(Reported in percent of total sample)

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.

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Customer:

Product identity: Full Spectrum Compliant CBD Distillate V3 GVL-TST582 .
Client/Metrc ID:
Sample Date:
Laboratory ID: 23-003182-0005
Evidence of Cooling: No
Temp: 18.9
Relinquished by: courier

Sample Results

Potency **Method:** J AOAC 2015 V98-6 (mod)[b] **Units** % **Batch:** 2305629 **Analyze:** 4/4/23 7:01:00 PM

Analyte	As Received	Dry weight	LOQ	Notes
CBC	0.828		0.0691	
CBC-A	< LOQ		0.0691	
CBC-Total	0.828		0.130	
CBD	89.1		0.691	
CBD-A	< LOQ		0.0691	
CBD-Total	89.1		0.752	
CBDV	0.346		0.0691	
CBDV-A	< LOQ		0.0691	
CBDV-Total	0.346		0.129	
CBE	0.312		0.0691	
CBG	0.398		0.0691	
CBG-A	< LOQ		0.0691	
CBG-Total	0.398		0.129	
CBL	< LOQ		0.0691	
CBL-A	< LOQ		0.0691	
CBL-Total	< LOQ		0.130	
CBN	0.258		0.0691	
CBT	0.409		0.0691	
Δ10-THC-9R	< LOQ		0.0691	
Δ10-THC-9S	< LOQ		0.0691	
Δ10-THC-Total	< LOQ		0.138	
Δ8-THC	< LOQ		0.0691	
Δ8-THCV	< LOQ		0.0691	
Δ9-THC	0.215		0.0691	
exo-THC	< LOQ		0.0691	
THC-A	< LOQ		0.0691	
THC-Total	0.215		0.130	
THCV	< LOQ		0.0691	
THCV-A	< LOQ		0.0691	
THCV-Total	< LOQ		0.129	
Total Cannabinoids	91.9			

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2306447	04/20/23	AOAC 991.14 (Petrifilm)þ		
Total Coliforms	< LOQ		cfu/g	10	2306447	04/20/23	AOAC 991.14 (Petrifilm)þ		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2306448	04/21/23	AOAC 2014.05 (RAPID)þ		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2306448	04/21/23	AOAC 2014.05 (RAPID)þ		

Solvents

Method: Residual Solvents by GC/MSþ **Units** µg/g **Batch** 2306600 **Analyze** 04/21/23 01:40 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	

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Pesticides

Method: AOAC 2007.01 & EN 15662 (mod)þ **Units** mg/kg **Batch** 2306597 **Analyze** 04/21/23 12:33 PM

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
Abamectin¥	< LOQ	0.50	0.250	pass		Acephate¥	< LOQ	0.40	0.200	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		Flonicamid¥	< 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	0.100	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	0.100	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							

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Status	Notes
Arsenic¥	< LOQ	0.200	mg/kg	0.0874	2306543	04/19/23	AOAC 2013.06 (mod.)þ	pass	
Cadmium¥	< LOQ	0.200	mg/kg	0.0874	2306543	04/19/23	AOAC 2013.06 (mod.)þ	pass	
Lead¥	< LOQ	0.500	mg/kg	0.0874	2306543	04/19/23	AOAC 2013.06 (mod.)þ	pass	
Mercury¥	< LOQ	0.100	mg/kg	0.0437	2306543	04/19/23	AOAC 2013.06 (mod.)þ	pass	

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

Report Number:	23-003182/D009.R000
Report Date:	04/24/2023
ORELAP#:	OR100028
Purchase Order:	
Received:	03/31/23 13:40

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.

ᵇ = 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

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 **Batch ID: 2305629**

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.102	0.100	%	102	80.0 - 120	Acceptable	
CBDV	2	0.0998	0.100	%	99.8	80.0 - 120	Acceptable	
CBE	2	0.101	0.100	%	101	80.0 - 120	Acceptable	
CBDA	1	0.0931	0.093	%	100	90.0 - 110	Acceptable	
CBGA	1	0.0791	0.077	%	102	80.0 - 120	Acceptable	
CBG	1	0.0950	0.093	%	102	80.0 - 120	Acceptable	
CBD	1	0.0831	0.082	%	101	90.0 - 110	Acceptable	
THCV	2	0.0989	0.100	%	98.9	80.0 - 120	Acceptable	
d8THCV	2	0.0996	0.100	%	99.6	80.0 - 120	Acceptable	
THCVA	2	0.102	0.100	%	102	80.0 - 120	Acceptable	
CBN	1	0.0814	0.081	%	101	80.0 - 120	Acceptable	
exo-THC	2	0.0935	0.100	%	93.5	80.0 - 120	Acceptable	
d9THC	1	0.0902	0.093	%	96.5	90.0 - 110	Acceptable	
d8THC	1	0.0935	0.094	%	99.9	90.0 - 110	Acceptable	
9S-d10THC	1	0.0914	0.094	%	96.9	80.0 - 120	Acceptable	
CBL	2	0.0952	0.100	%	95.2	80.0 - 120	Acceptable	
9R-d10THC	1	0.0892	0.096	%	93.0	80.0 - 120	Acceptable	
CBC	2	0.0991	0.100	%	99.1	80.0 - 120	Acceptable	
THCA	1	0.103	0.108	%	95.2	90.0 - 110	Acceptable	
CBCA	2	0.105	0.100	%	105	80.0 - 120	Acceptable	
CBLA	2	0.105	0.100	%	105	80.0 - 120	Acceptable	
CBT	2	0.0863	0.100	%	86.3	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.077	%	< 0.077	Acceptable	
CBDV	<LOQ	0.077	%	< 0.077	Acceptable	
CBE	<LOQ	0.077	%	< 0.077	Acceptable	
CBDA	<LOQ	0.077	%	< 0.077	Acceptable	
CBGA	<LOQ	0.077	%	< 0.077	Acceptable	
CBG	<LOQ	0.077	%	< 0.077	Acceptable	
CBD	<LOQ	0.077	%	< 0.077	Acceptable	
THCV	<LOQ	0.077	%	< 0.077	Acceptable	
d8THCV	<LOQ	0.077	%	< 0.077	Acceptable	
THCVA	<LOQ	0.077	%	< 0.077	Acceptable	
CBN	<LOQ	0.077	%	< 0.077	Acceptable	
exo-THC	<LOQ	0.077	%	< 0.077	Acceptable	
d9THC	<LOQ	0.077	%	< 0.077	Acceptable	
d8THC	<LOQ	0.077	%	< 0.077	Acceptable	
9S-d10THC	<LOQ	0.077	%	< 0.077	Acceptable	
CBL	<LOQ	0.077	%	< 0.077	Acceptable	
9R-d10THC	<LOQ	0.077	%	< 0.077	Acceptable	
CBC	<LOQ	0.077	%	< 0.077	Acceptable	
THCA	<LOQ	0.077	%	< 0.077	Acceptable	
CBCA	<LOQ	0.077	%	< 0.077	Acceptable	
CBLA	<LOQ	0.077	%	< 0.077	Acceptable	
CBT	<LOQ	0.077	%	< 0.077	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 **Batch ID: 2305629**

Sample Duplicate Sample ID: **23-003141-0001**

Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBG	2.75	2.79	0.077	%	1.23	< 20	Acceptable	
CBD	0.117	0.132	0.077	%	12.0	< 20	Acceptable	
THCV	0.354	0.362	0.077	%	2.08	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBN	0.205	0.207	0.077	%	1.15	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
d9THC	70.1	70.8	0.077	%	1.05	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBC	1.55	1.57	0.077	%	1.28	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Revision: 3 Document ID: 3120
LegacyID: CFLC21WorksheetValidated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 &EN 15662			Units: mg/Kg				Batch ID: 2306597			
Method Blank				Laboratory Control Sample						
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Re	Limits		Notes
Abamectin	0.000	< 0.250		1.094	1.000	109.4	50.0	150	
Acephate	0.000	< 0.200		0.800	0.800	100.0	60.0	120	
Acequinocyl	0.000	< 1.000		3.545	4.000	88.6	40.0	160	
Acetamiprid	0.000	< 0.100		0.433	0.400	108.3	60.0	120	
Aldicarb	0.000	< 0.200		0.844	0.800	105.5	60.0	120	
Azoxystrobin	0.000	< 0.100		0.429	0.400	107.3	60.0	120	
Bifenazate	0.000	< 0.100		0.490	0.400	122.5	60.0	120	Q1
Bifenthrin	0.000	< 0.100		0.396	0.400	99.1	50.0	150	
Boscalid	0.000	< 0.200		0.920	0.800	115.0	60.0	120	
Carbaryl	0.000	< 0.100		0.420	0.400	104.9	60.0	120	
Carbofuran	0.000	< 0.100		0.431	0.400	107.9	60.0	120	
Chlorantraniliprole	0.000	< 0.100		0.419	0.400	104.7	60.0	120	
Chlorfenapyr	0.000	< 0.500		2.346	2.000	117.3	60.0	120	
Chlorpyrifos	0.000	< 0.100		0.403	0.400	100.7	60.0	120	
Clofentezine	0.000	< 0.100		0.422	0.400	105.4	60.0	120	
Cyfluthrin	0.000	< 0.500		2.172	2.000	108.6	50.0	150	
Cypermethrin	0.000	< 0.500		2.093	2.000	104.7	50.0	150	
Daminozide	0.215	< 0.500		2.409	2.000	120.5	60.0	120	Q1
Diazinon	0.000	< 0.100		0.467	0.400	116.8	60.0	120	
Dichlorvos	0.000	< 0.500		2.060	2.000	103.0	60.0	120	
Dimethoate	0.000	< 0.100		0.414	0.400	103.6	60.0	120	
Ethoprophos	0.000	< 0.100		0.427	0.400	106.7	60.0	120	
Etofenprox	0.000	< 0.200		0.822	0.800	102.8	50.0	150	
Etoxazole	0.000	< 0.100		0.426	0.400	106.4	60.0	120	
Fenoxycarb	0.000	< 0.100		0.421	0.400	105.3	60.0	120	
Fenpyroximate	0.000	< 0.200		0.904	0.800	113.1	60.0	120	
Fipronil	0.000	< 0.200		0.822	0.800	102.7	60.0	120	
Flonicamid	0.000	< 0.250		1.019	1.000	101.9	60.0	120	
Fludioxonil	0.000	< 0.200		0.905	0.800	113.2	50.0	150	
Hexythiazox	0.000	< 0.250		1.037	1.000	103.7	60.0	120	
Imazalil	0.000	< 0.100		0.426	0.400	106.5	60.0	120	
Imidacloprid	0.000	< 0.200		0.839	0.800	104.9	60.0	120	
Kresoxim-methyl	0.000	< 0.200		0.857	0.800	107.1	60.0	120	
Malathion	0.000	< 0.100		0.430	0.400	107.4	60.0	120	
Metalaxyl	0.000	< 0.100		0.442	0.400	110.5	60.0	120	
Methiocarb	0.000	< 0.100		0.421	0.400	105.3	60.0	120	
Methomyl	0.000	< 0.200		0.849	0.800	106.1	60.0	120	
MGK-264	0.000	< 0.100		0.433	0.400	108.3	50.0	150	
Myclobutanil	0.000	< 0.100		0.443	0.400	110.8	60.0	120	
Naled	0.000	< 0.250		1.021	1.000	102.1	50.0	150	
Oxamyl	0.000	< 0.500		2.166	2.000	108.3	60.0	120	
Paclobutrazole	0.000	< 0.200		0.898	0.800	112.2	60.0	120	
Parathion-Methyl	0.000	< 0.100		0.508	0.400	126.9	50.0	150	
Permethrin	0.002	< 0.100		0.424	0.400	106.0	50.0	150	
Phosmet	0.000	< 0.100		0.416	0.400	104.1	50.0	150	
Piperonyl butoxide	0.000	< 0.500		2.250	2.000	112.5	60.0	120	
Prallethrin	0.000	< 0.100		0.418	0.400	104.4	60.0	120	
Propiconazole	0.000	< 0.200		0.863	0.800	107.9	60.0	120	
Propoxur	0.000	< 0.100		0.428	0.400	106.9	60.0	120	
Pyrethrin (Summe)	0.000	< 0.100		0.522	0.488	106.9	60.0	120	
Pyridaben	0.000	< 0.100		0.419	0.400	104.8	50.0	150	
Spinosad	0.000	< 0.100		0.413	0.388	106.6	50.0	150	
Spiromesifen	0.000	< 0.100		0.445	0.400	111.1	60.0	120	
Spirotetramat	0.000	< 0.100		0.435	0.400	108.7	60.0	120	
Spiroxamine	0.000	< 0.200		0.864	0.800	107.9	60.0	120	
Tebuconazole	0.000	< 0.200		0.900	0.800	112.5	60.0	120	
Thiadoprid	0.000	< 0.100		0.425	0.400	106.2	60.0	120	
Thiamethoxam	0.000	< 0.100		0.437	0.400	109.2	60.0	120	
Trifloxystrobin	0.000	< 0.100		0.427	0.400	106.9	60.0	120	

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

Revision: 3 Document ID: 3120
LegacyID: CFLC21WorksheetValidated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 &EN 15662 | Units: mg/Kg | Batch ID: 2306597

Matrix Spike/Matrix Spike Duplicate Recoveries | Sample ID: 230046160001

Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Abamectin	0.000	0.968	1.049	1.000	8.0%	< 30	96.8%	104.9%	50 - 150	
Acephate	0.000	0.730	0.740	0.800	1.3%	< 30	91.3%	92.5%	50 - 150	
Acequinocyl	0.000	2.682	3.218	4.000	18.1%	< 30	67.1%	80.4%	50 - 150	
Acetamiprid	0.000	0.379	0.398	0.400	4.8%	< 30	94.7%	99.4%	50 - 150	
Aldicarb	0.000	0.759	0.864	0.800	12.9%	< 30	94.9%	108.0%	50 - 150	
Azoxystrobin	0.002	0.338	0.367	0.400	8.4%	< 30	84.0%	91.4%	50 - 150	
Bifenazate	0.106	0.491	0.560	0.400	16.5%	< 30	96.3%	113.6%	50 - 150	
Bifenthrin	0.000	0.214	0.251	0.400	16.0%	< 30	53.5%	62.8%	50 - 150	
Boscalid	0.745	1.234	1.400	0.800	29.0%	< 30	61.1%	81.9%	50 - 150	
Carbaryl	0.000	0.313	0.331	0.400	5.7%	< 30	78.2%	82.8%	50 - 150	
Carbofuran	0.000	0.350	0.380	0.400	8.0%	< 30	87.6%	94.9%	50 - 150	
Chlorantraniliprole	0.000	0.374	0.401	0.400	7.0%	< 30	93.6%	100.4%	50 - 150	
Chlorfenapyr	0.000	1.788	1.671	2.000	6.8%	< 30	89.4%	83.5%	50 - 150	
Chlorpyrifos	0.062	0.453	0.409	0.400	12.1%	< 30	97.9%	86.7%	50 - 150	
Clofentezine	0.011	0.225	0.265	0.400	17.0%	< 30	53.6%	63.6%	50 - 150	
Cyfluthrin	0.000	1.153	1.215	2.000	5.2%	< 30	57.6%	60.7%	30 - 150	
Cypermethrin	0.000	0.992	1.010	2.000	1.8%	< 30	49.6%	50.5%	50 - 150	Q
Daminozide	0.316	2.415	2.869	2.000	19.6%	< 30	104.9%	127.7%	30 - 150	
Diazinon	0.000	0.162	0.193	0.400	17.6%	< 30	40.4%	48.3%	50 - 150	Q
Dichlorvos	0.000	1.691	1.700	2.000	0.5%	< 30	84.6%	85.0%	50 - 150	
Dimethoate	0.000	0.355	0.366	0.400	3.0%	< 30	88.8%	91.5%	50 - 150	
Ethoprophos	0.003	0.343	0.364	0.400	6.0%	< 30	85.1%	90.3%	50 - 150	
Etofenprox	0.036	0.500	0.560	0.800	12.2%	< 30	58.0%	65.5%	50 - 150	
Etoxazole	0.000	0.330	0.363	0.400	9.5%	< 30	82.4%	90.7%	50 - 150	
Fenoxycarb	0.000	0.305	0.377	0.400	21.1%	< 30	76.2%	94.1%	50 - 150	
Fenpyroximate	0.000	0.209	0.259	0.800	21.3%	< 30	26.1%	32.4%	50 - 150	Q
Fipronil	0.000	0.448	0.494	0.800	9.8%	< 30	56.0%	61.7%	50 - 150	
Flonicamid	0.000	0.923	0.955	1.000	3.4%	< 30	92.3%	95.5%	50 - 150	
Fludioxonil	0.000	1.308	1.184	0.800	10.0%	< 30	163.5%	148.0%	50 - 150	Q
Hexythiazox	0.000	0.814	0.904	1.000	10.6%	< 30	81.4%	90.4%	50 - 150	
Imazalil	0.000	0.356	0.399	0.400	11.4%	< 30	89.1%	99.9%	50 - 150	
Imidacloprid	0.000	0.718	0.744	0.800	3.6%	< 30	89.7%	93.0%	50 - 150	
Kresoxim-methyl	0.000	0.561	0.663	0.800	16.7%	< 30	70.1%	82.9%	50 - 150	
Malathion	0.000	0.309	0.367	0.400	16.9%	< 30	77.4%	91.7%	50 - 150	
Metalaxyl	0.000	0.351	0.436	0.400	21.6%	< 30	87.9%	109.1%	50 - 150	
Methiocarb	0.000	0.322	0.387	0.400	18.1%	< 30	80.6%	96.7%	50 - 150	
Methomyl	0.000	0.771	0.855	0.800	10.3%	< 30	96.3%	106.8%	50 - 150	
MGK-264	0.000	0.196	0.242	0.400	21.2%	< 30	48.9%	60.5%	50 - 150	Q
Myclobutanil	0.046	0.315	0.343	0.400	9.7%	< 30	67.4%	74.2%	50 - 150	
Naled	0.000	0.764	0.836	1.000	9.1%	< 30	76.4%	83.6%	50 - 150	
Oxamyl	0.000	1.904	1.986	2.000	4.2%	< 30	95.2%	99.3%	50 - 150	
Padobutrazole	0.003	0.659	0.751	0.800	13.1%	< 30	82.0%	93.5%	50 - 150	
Parathion-Methyl	0.000	0.257	0.358	0.400	32.8%	< 30	64.3%	89.5%	30 - 150	R
Permethrin	0.011	0.281	0.309	0.400	9.8%	< 30	67.7%	74.7%	50 - 150	
Phosmet	0.002	0.327	0.406	0.400	21.6%	< 30	81.4%	101.0%	50 - 150	
Piperonyl butoxide	0.000	1.911	2.179	2.000	13.1%	< 30	95.6%	109.0%	50 - 150	
Prallethrin	0.000	0.222	0.276	0.400	21.5%	< 30	55.6%	69.0%	50 - 150	
Propiconazole	0.099	0.656	0.788	0.800	21.1%	< 30	69.7%	86.1%	50 - 150	
Propoxur	0.007	0.353	0.373	0.400	5.8%	< 30	86.3%	91.5%	50 - 150	
Pyrethrin (Summe)	0.106	0.442	0.501	0.488	16.2%	< 30	68.8%	80.9%	50 - 150	
Pyridaben	0.012	0.266	0.287	0.400	7.6%	< 30	63.7%	68.7%	50 - 150	
Spinosad	0.000	0.303	0.336	0.388	10.3%	< 30	78.1%	86.6%	50 - 150	
Spiromesifen	0.000	0.347	0.371	0.400	6.6%	< 30	86.7%	92.7%	50 - 150	
Spirotetramat	0.000	0.462	0.504	0.400	8.6%	< 30	115.5%	125.9%	50 - 150	
Spiroxamine	0.000	0.731	0.901	0.800	20.8%	< 30	91.4%	112.7%	50 - 150	
Tebuconazole	0.000	0.629	0.760	0.800	18.9%	< 30	78.6%	95.1%	50 - 150	
Thiadoprid	0.000	0.356	0.404	0.400	12.6%	< 30	89.1%	101.1%	50 - 150	
Thiamethoxam	0.000	0.384	0.408	0.400	6.1%	< 30	95.9%	102.0%	50 - 150	
Trifloxystrobin	0.005	0.299	0.336	0.400	12.0%	< 30	73.5%	82.8%	50 - 150	

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

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

Laboratory Quality Control Results

Residual Solvents **Batch ID:** 2306600

Method Blank					Laboratory Control Sample							
Analyte	**Result**		**LOQ**	**Notes**	**Result**	**Spike**	**Units**	**% Rec**	**Limits**			**Notes**
Propane	ND	<	200		444	584	µg/g	76.0	60	-	120	
Isobutane	ND	<	200		553	767	µg/g	72.1	60	-	120	
Butane	ND	<	200		586	782	µg/g	74.9	60	-	120	
2,2-Dimethylpropane	ND	<	200		764	939	µg/g	81.4	60	-	120	
Methanol	ND	<	200		1620	1610	µg/g	100.6	60	-	120	
Ethylene Oxide	ND	<	30		46.4	57.1	µg/g	81.3	60	-	120	
2-Methylbutane	ND	<	200		1570	1600	µg/g	98.1	60	-	120	
Pentane	ND	<	200		1620	1610	µg/g	100.6	60	-	120	
Ethanol	ND	<	200		1600	1600	µg/g	100.0	70	-	130	
Ethyl Ether	ND	<	200		1570	1610	µg/g	97.5	60	-	120	
2,2-Dimethylbutane	ND	<	30		173	173	µg/g	100.0	60	-	120	
Acetone	ND	<	200		1600	1620	µg/g	98.8	60	-	120	
2-Propanol	ND	<	200		1590	1600	µg/g	99.4	60	-	120	
Ethyl Formate	ND	<	500		1690	1610	µg/g	105.0	70	-	130	
Acetonitrile	ND	<	100		470	488	µg/g	96.3	60	-	120	
Methyl Acetate	ND	<	500		1450	1610	µg/g	90.1	70	-	130	
2,3-Dimethylbutane	ND	<	30		167	165	µg/g	101.2	60	-	120	
Dichloromethane	ND	<	60		482	487	µg/g	99.0	60	-	120	
2-Methylpentane	ND	<	30		156	160	µg/g	97.5	60	-	120	
MTBE	ND	<	500		1500	1600	µg/g	93.8	70	-	130	
3-Methylpentane	ND	<	30		153	161	µg/g	95.0	60	-	120	
Hexane	ND	<	30		157	162	µg/g	96.9	60	-	120	
1-Propanol	ND	<	500		1500	1620	µg/g	92.6	70	-	130	
Methylethylketone	ND	<	500		1450	1610	µg/g	90.1	70	-	130	
Ethyl acetate	ND	<	200		1550	1600	µg/g	96.9	60	-	120	
2-Butanol	ND	<	200		1580	1610	µg/g	98.1	60	-	120	
Tetrahydrofuran	ND	<	100		464	483	µg/g	96.1	60	-	120	
Cyclohexane	ND	<	200		1570	1610	µg/g	97.5	60	-	120	
2-methyl-1-propanol	ND	<	500		1470	1630	µg/g	90.2	70	-	130	
Benzene	ND	<	1		4.84	4.98	µg/g	97.2	60	-	120	
Isopropyl Acetate	ND	<	200		1580	1610	µg/g	98.1	60	-	120	
Heptane	ND	<	200		1550	1620	µg/g	95.7	60	-	120	
1-Butanol	ND	<	500		1410	1600	µg/g	88.1	70	-	130	
Propyl Acetate	ND	<	500		1350	1620	µg/g	83.3	70	-	130	
1,4-Dioxane	ND	<	100		439	494	µg/g	88.9	60	-	120	
2-Ethoxyethanol	ND	<	30		166	165	µg/g	100.6	60	-	120	
Methylisobutylketone	ND	<	500		1430	1610	µg/g	88.8	70	-	130	
3-Methyl-1-butanol	ND	<	500		1350	1610	µg/g	83.9	70	-	130	
Ethylene Glycol	ND	<	200		411	486	µg/g	84.6	60	-	120	
Toluene	ND	<	100		447	513	µg/g	87.1	60	-	120	
Isobutyl Acetate	ND	<	500		1390	1600	µg/g	86.9	70	-	130	
1-Pentanol	ND	<	500		1340	1610	µg/g	83.2	70	-	130	
Butyl Acetate	ND	<	500		1370	1610	µg/g	85.1	70	-	130	
Ethylbenzene	ND	<	200		874	967	µg/g	90.4	60	-	120	
m,p-Xylene	ND	<	200		886	994	µg/g	89.1	60	-	120	
o-Xylene	ND	<	200		877	992	µg/g	88.4	60	-	120	
Cumene	ND	<	30		144	171	µg/g	84.2	60	-	120	
Anisole	ND	<	500		1200	1610	µg/g	74.5	70	-	130	
DMSO	ND	<	500		1230	1610	µg/g	76.4	70	-	130	
1,2-dimethoxyethane	ND	<	50		157	172	µg/g	91.3	70	-	130	
Triethylamine	ND	<	500		1380	1620	µg/g	85.2	70	-	130	
N,N-dimethylformamide	ND	<	150		416	499	µg/g	83.4	70	-	130	
N,N-dimethylacetamide	ND	<	150		401	491	µg/g	81.7	70	-	130	
Pyridine	ND	<	50		139	171	µg/g	81.3	70	-	130	
Sulfolane	ND	<	50		121	160	µg/g	75.6	70	-	130	
1,2-Dichloroethane	ND	<	1		0.844	1	µg/g	84.4	70	-	130	
Chloroform	ND	<	1		0.904	1	µg/g	90.4	70	-	130	
Trichloroethylene	ND	<	1		0.927	1	µg/g	92.7	70	-	130	
1,1-Dichloroethane	ND	<	1		0.87	1	µg/g	87.0	70	-	130	

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

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

QC - Sample Duplicate **Sample ID: 23-004569-0001**

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

Columbia LABORATORIES
A Tentamus Company

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

Report Number:	23-003182/D009.R000
Report Date:	04/24/2023
ORELAP#:	OR100028
Purchase Order:	
Received:	03/31/23 13:40

Testing in accordance with: OAR 333-007-0390 OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430

Columbia LABORATORIES
A Tentamus Company

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

Report Number: 23-003182/D009.R000
Report Date: 04/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 03/31/23 13:40

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.