



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



Report Number: 20-011625/D02.R00
Report Date: 11/02/2020
ORELAP#: OR100028
Purchase Order:
Received: 10/27/20 10:00

Customer: Treehouse Biotech
Product identity: 0138-01-001
Client/Metric ID: .
Laboratory ID: 20-011625-0003

Summary

Potency:

Analyte	Result (%)		
CBD	71.5		CBD-Total 71.5%
CBC	11.0		THC-Total <LOQ
CBG†	2.06		(Reported in percent of total sample)
CBN	1.34		
CBL†	0.913		
CBDV†	0.635		

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.



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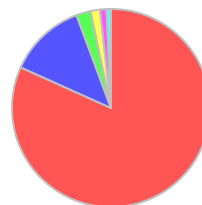
Customer: Treehouse Biotech

Product identity: 0138-01-001
Client/Metric ID: .
Sample Date:
Laboratory ID: 20-011625-0003
Relinquished by: UPS
Temp: 16 °C

Sample Results

Potency **Method J AOAC 2015 V98-6 (mod) Batch: 2009093 Analyze: 10/30/20 5:46:00 PM**

Analyte	As Received	Dry weight	LOQ	Notes
CBC	11.0		0.0898	
CBC-A†	< LOQ		0.0898	
CBC-Total†	11.0		0.169	
CBD	71.5		0.898	
CBD-A	< LOQ		0.0898	
CBD-Total	71.5		0.976	
CBDV†	0.635		0.0898	
CBDV-A†	< LOQ		0.0898	
CBDV-Total†	0.635		0.168	
CBG†	2.06		0.0898	
CBG-A†	< LOQ		0.0898	
CBG-Total	2.06		0.168	
CBL†	0.913		0.0898	
CBN	1.34		0.0898	
Δ8-THC†	< LOQ		0.0898	
Δ9-THC	< LOQ		0.0898	
THC-A	< LOQ		0.0898	
THC-Total	< LOQ		0.169	
THCV†	< LOQ		0.0898	
THCV-A†	< LOQ		0.0898	
THCV-Total†	< LOQ		0.168	
Total Cannabinoids†	87.4			



- CBD
- CBC
- CBG
- CBN
- CBL
- CBDV

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2008914	10/29/20	AOAC 990.12 (Petrifilm)	X, I
E.coli	< LOQ		cfu/g	10	2008915	10/29/20	AOAC 991.14 (Petrifilm)	X, I
Total Coliforms	< LOQ		cfu/g	10	2008915	10/29/20	AOAC 991.14 (Petrifilm)	X, I
Staphylococcus aureus	< LOQ		cfu/g	10	2008916	10/28/20	AOAC 2003.07	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2008913	10/29/20	AOAC 2014.05 (RAPID)	X, I
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2008913	10/29/20	AOAC 2014.05 (RAPID)	X, I
Salmonella spp.	Negative		/5g		2008918	10/28/20	AOAC 2016.01	X, I



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Solvents						Method EPA5021A		Units µg/g		Batch 2008995		Analyze 10/29/20 09:13 AM			
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	< LOQ		200						
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass					
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< 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		Ethanol ¹	< LOQ		200						
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	30.0	pass		Hexanes (sum)	< LOQ	290	150	pass					
Isopropyl acetate	< LOQ	5000	200	pass		Isopropylbenzene	< LOQ	70.0	30.0	pass					
m,p-Xylene	< LOQ		200			Methanol	< LOQ	3000	200	pass					
Methylene chloride	< LOQ	600	200	pass		Methylpropane	< 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	< LOQ	2170	600	pass											



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Pesticides											
Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2009098 Analyze 11/02/20 10:29 AM											
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							

Metals										
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes		
Arsenic	< LOQ		mg/kg	0.0355	2009031	10/29/20	AOAC 2013.06 (mod.)	X		
Cadmium	< LOQ		mg/kg	0.0355	2009031	10/29/20	AOAC 2013.06 (mod.)	X		
Lead	< LOQ		mg/kg	0.0355	2009031	10/29/20	AOAC 2013.06 (mod.)	X		
Mercury	< LOQ		mg/kg	0.0177	2009031	10/29/20	AOAC 2013.06 (mod.)	X		



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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

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

cfu/g = Colony forming units per gram

µg/g = Microgram per gram

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

/5g = Per 5 grams

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

I: Insufficient sample received to meet method requirements.

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager



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Hemp / Cannabis Usable / Extract
Chain of Custody Record

20-011625

Revision: 3.01 Control#: CF023 Rev 02/26/2020 Eff: 02/27/2020
ORELAP ID: OR100028

Company: Treehouse				Analysis Requested								PO Number: _____		
Contact: Julie Barich and Sean Colvin				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: Micro Panel G	Sample Type †	Weight (Units)	Project Number: _____						Project Name: _____	
Street: 4472 Hilltop Rd Unit A							Custom Reporting: _____						Report to State - <input type="checkbox"/> METRC or <input type="checkbox"/> Other: _____	
City: Longmont State: CO Zip: 80504							Turnaround time: <input type="checkbox"/> Standard <input type="checkbox"/> Rush * <input type="checkbox"/> Priority Rush *						*Check for availability	
<input checked="" type="checkbox"/> Email Results: julie@treehousebiotech.com Ph: (303) 550-5601 <input type="checkbox"/> Fx Results: () Billing (if different): accounting@treehousebiotech.com							Sampled by: _____							
Lab ID	Client Sample Identification	Date	Time									Comments/Metric ID		
1	BBAY			✓		✓						For Any Residual Solvent Analysis, please do Ethanol. This is required for Organic Certification. Thanks! Custom LOQ 0.01 on the following sample(s): none		
2	0131-01-001 Start					✓								
3	0138-01-001			✓		✓	✓							
Relinquished By:		Date	Time	Received By:		Date	Time	Lab Use Only:						
Julie Barich		10.13.20	10:48A	M. Barich		10.27.20	10:00	<input type="checkbox"/> Shipped Via: <u>UPS</u> or <input type="checkbox"/> Client drop Evidence of cooling: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No - Temp (°C): <u>16.0</u> Sample in good condition: <input 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)

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**Hemp / Cannabis Usable / Extract
Chain of Custody Record**

Revision: 3.01 Control#: CF023 Rev 02/26/2020 Eff: 02/27/2020
ORELAP ID: OR100028

PRICING AND CHARGES

Prices to be charged for work performed for CUSTOMER are those currently published in the Columbia Laboratories (herein referred to as "the LAB". Standard pricing applies unless otherwise agreed in writing by the CUSTOMER and the LAB. CUSTOMER must notify the LAB of price quotation at the time of the transfer of sample(s) to the LAB. Any cancellation of testing requirements will result in charges being assessed on all testing completed prior to the notice of cancellation. Unless otherwise agreed upon, samples containing hazardous material will be shipped back to client at their expense, or disposed of at a certain fee, waste category dependent. New accounts are accepted with full payment in advance by cash, check, Visa or Mastercard. A credit line may be established with an approved credit application.

DELIVERY AND LIABILITY LIMITATIONS

The specific format of the goods will be defined by CUSTOMER to the LAB upon delivery of the sample(s) to the LAB. The LAB will analyze samples provided by CUSTOMER as requested by CUSTOMER in accordance with the procedures documented in the Quality Assurance Plan (QAP). Samples are retained for 30 days after receipt. If additional time is desired, then a written request is required, and an additional monthly fee will apply.

CONFIDENTIALITY

The LAB will treat all information regarding work performed for CUSTOMER as proprietary and confidential. No CUSTOMER information will be released to third persons without the written request of the CUSTOMER.

LIMITATION OF LIABILITY AND WARRANTY

The LAB gives no warranty, express or implied, or of fitness for a particular purpose, in connection with its analytical testing or reporting. Any liability of the LAB to CUSTOMER or any third party shall be limited to the cost of analysis charged to CUSTOMER.

PAST DUE ACCOUNTS

Credit line account are payable within 30 days. Accounts that are 60 days past due will incur 1 1/2% per month on all past due sums until paid in full and will automatically default to cash on delivery (COD). Reports will not be released unless payment on past and current invoices are received. Customer agrees to pay the interest as a service charge and all the LAB's collection costs, including reasonable attorney fees.

EXPERT TESTIMONY AND COURT APPEARANCES

In the event CUSTOMER requires the further written opinion or testimony of any employee of the LAB, including response to a subpoena issued by CUSTOMER or any third person, CUSTOMER agrees to pay such additional fees and expenses as may be reasonably assessed by the LAB.

ALTERNATIVE DISPUTE RESOLUTION (ADR)

Any disputes arising out of this Agreement or the analytical testing or reporting by the LAB shall be settled through mediation and/or arbitration rather than litigation, and the cost of the ADR shall be borne equally by both parties.

APPLICABLE LAW

Legal matters arising from work performed by the LAB for CUSTOMER will be construed and interpreted in accordance with the laws for the state of Oregon. When sending, transferring, or submitting samples, the CUSTOMER assumes full responsibility for complying with all applicable state and federal laws

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service associated with this COC. By signing "Relinquished by" you are agreeing to these terms.
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Columbia Laboratories
Sample Receipt Form

Revision: 1.01 Document Control: CF015
Revised: 02/28/2020 Effective: 02/28/2020

Job Number: 20011625 Search Name: _____

Package/Cooler opened on (if different than received date/time) Date: 12/27/20 Time: 10:00

Received By (Initials): mm

- 1) Were custody seals on outside of the package/cooler? YES NO NA
If YES, how many and where? _____
Were signature and date correct? ----- YES NO NA
- 2) Were custody papers included in the package/cooler? YES NO NA
- 3) Were custody papers properly filled out (ink, sign, date)? YES NO NA
- 4) Did you sign custody papers in the appropriate place? YES NO NA
- 5) How was the package/cooler delivered?
UPS FEDEX USPS CLIENT COURIER OTHER: _____
Tracking Number (written in or copy of shipping label): 1252W4040146192826
- 6) Was packing material used? YES NO NA
Peanuts Bubble Wrap Foam Paper Other: _____
- 7) Was sufficient ice used (if appropriate)? 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
- 15) Temperature of the samples upon receipt (See SOP for proper temps) 16.2 °C
- 16) Sample location prior to login: R25 R39 R44 F44 Ambient Shelf Cannabis Table Other: _____

Explain any discrepancies: _____

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Table with multiple columns and rows, currently blank.



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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: 2009093**

Laboratory Control Sample

Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDV-A	0.222	0.2	%	111	85.0 - 115	Acceptable	
CBDV	0.228	0.2	%	114	85.0 - 115	Acceptable	
CBD-A	0.218	0.2	%	109	85.0 - 115	Acceptable	
CBG-A	0.220	0.2	%	110	85.0 - 115	Acceptable	
CBG	0.223	0.2	%	111	85.0 - 115	Acceptable	
CBD	0.211	0.2	%	105	85.0 - 115	Acceptable	
THCV	0.219	0.2	%	109	85.0 - 115	Acceptable	
THCVA	0.208	0.2	%	104	85.0 - 115	Acceptable	
CBN	0.217	0.2	%	108	85.0 - 115	Acceptable	
THC	0.210	0.2	%	105	85.0 - 115	Acceptable	
D8THC	0.211	0.2	%	106	85.0 - 115	Acceptable	
CBL	0.213	0.2	%	106	85.0 - 115	Acceptable	
CBC	0.216	0.2	%	108	85.0 - 115	Acceptable	
THCA	0.209	0.2	%	104	85.0 - 115	Acceptable	
CBCA	0.209	0.2	%	105	85.0 - 115	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDV-A	<LOQ	0.1	%	< 0.1	Acceptable	
CBDV	<LOQ	0.1	%	< 0.1	Acceptable	
CBD-A	<LOQ	0.1	%	< 0.1	Acceptable	
CBG-A	<LOQ	0.1	%	< 0.1	Acceptable	
CBG	<LOQ	0.1	%	< 0.1	Acceptable	
CBD	<LOQ	0.1	%	< 0.1	Acceptable	
THCV	<LOQ	0.1	%	< 0.1	Acceptable	
THCVA	<LOQ	0.1	%	< 0.1	Acceptable	
CBN	<LOQ	0.1	%	< 0.1	Acceptable	
THC	<LOQ	0.1	%	< 0.1	Acceptable	
D8THC	<LOQ	0.1	%	< 0.1	Acceptable	
CBL	<LOQ	0.1	%	< 0.1	Acceptable	
CBC	<LOQ	0.1	%	< 0.1	Acceptable	
THCA	<LOQ	0.1	%	< 0.1	Acceptable	
CBCA	<LOQ	0.1	%	< 0.1	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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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: 2009093							
Sample Duplicate		Sample ID: 20-011625-0002							
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes	
CBDV-A	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
CBDV	0.204	0.205	0.1	%	0.529	< 20	Acceptable		
CBD-A	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
CBG-A	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
CBG	0.816	0.808	0.1	%	0.945	< 20	Acceptable		
CBD	86.6	86.0	0.1	%	0.802	< 20	Acceptable		
THCV	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
THCVA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
CBN	0.271	0.265	0.1	%	2.11	< 20	Acceptable		
THC	2.44	2.40	0.1	%	1.98	< 20	Acceptable		
D8THC	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
CBL	0.171	0.167	0.1	%	2.21	< 20	Acceptable		
CBC	0.786	0.771	0.1	%	1.92	< 20	Acceptable		
THCA	<LOQ	<LOQ	0.1	%	NA	< 20	Acceptable		
CBCA	<LOQ	<LOQ	0.1	%	NA	< 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



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Revision: 1.00 Control: CFL-C21
 Revised: 08/12/2019 Effective: 08/15/2019

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/kg		Laboratory Control Sample			Batch ID: 2009098	
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Method Blank								
Acetate	0.000	< 0.200		0.928	1.000	92.8	67.0 - 124	
Acequinocyl	0.000	< 1.000		3.753	4.000	93.8	68.8 - 128	
Acetamiprid	0.000	< 0.100		0.375	0.400	93.6	68.1 - 126	
Aldicarb	0.000	< 0.200		0.694	0.800	86.8	67.7 - 126	
Abamectin	0.000	< 0.288		0.956	1.000	95.6	67.8 - 126	
Azoxystrobin	0.000	< 0.100		0.367	0.400	91.6	68.1 - 126	
Bifenazate	0.000	< 0.100		0.382	0.400	95.6	67.1 - 125	
Bifenthrin	0.000	< 0.100		0.375	0.400	93.8	70.6 - 131	
Boscalid	0.000	< 0.100		0.854	0.800	106.7	67.6 - 126	
Carbaryl	0.000	< 0.100		0.357	0.400	89.2	68.6 - 127	
Carbofuran	0.000	< 0.100		0.364	0.400	91.0	67.6 - 126	
Chlorantraniliprol	0.000	< 0.100		0.413	0.400	103.4	67.9 - 126	
Chlorfenapyr	0.000	< 1.000		1.833	2.000	91.7	67.1 - 125	
Chlorpyrifos	0.000	< 0.100		0.360	0.400	90.0	68.9 - 128	
Clofentazine	0.000	< 0.100		0.359	0.400	89.8	66.0 - 123	
Cyfluthrin	0.000	< 1.000		1.729	2.000	86.4	69.8 - 130	
Cypermethrin	0.000	< 1.000		1.912	2.000	95.6	70.0 - 130	
Daminozide	0.000	< 1.000		1.757	2.000	87.8	64.9 - 121	
Diazinon	0.000	< 0.100		0.381	0.400	95.2	67.3 - 125	
Dichlorvos	0.000	< 0.500		1.870	2.000	93.5	67.3 - 125	
Dimethoat	0.000	< 0.100		0.381	0.400	95.3	67.6 - 126	
Ethoprophos	0.000	< 0.100		0.384	0.400	96.0	67.1 - 125	
Etofenprox	0.000	< 0.100		0.714	0.800	89.2	68.1 - 127	
Etoxazol	0.000	< 0.100		0.364	0.400	90.9	67.8 - 126	
Fenoxycarb	0.000	< 0.100		0.382	0.400	95.5	67.5 - 125	
Fenpyroximat	0.000	< 0.100		0.786	0.800	98.3	69.4 - 129	
Fipronil	0.000	< 0.100		0.788	0.800	98.5	69.6 - 129	
Flonicamid	0.000	< 0.400		0.976	1.000	97.6	68.2 - 127	
Fludioxonil	0.000	< 0.100		0.696	0.800	87.1	68.3 - 127	
Hexythiazox	0.000	< 0.400		0.924	1.000	92.4	70.4 - 131	
Imazalil	0.000	< 0.100		0.393	0.400	98.2	70.7 - 131	
Imidacloprid	0.000	< 0.200		0.774	0.800	96.7	66.7 - 124	
Kresoxim-Methyl	0.000	< 0.100		0.721	0.800	90.1	68.0 - 126	
Malathion	0.000	< 0.100		0.389	0.400	97.4	68.0 - 126	
Metaxalyl	0.000	< 0.100		0.347	0.400	86.8	67.4 - 125	
Methiocarb	0.000	< 0.100		0.365	0.400	91.2	67.8 - 126	
Methomyl	0.000	< 0.200		0.709	0.800	88.6	67.1 - 125	
MGK 264	0.000	< 0.100		0.381	0.400	95.3	68.3 - 127	
Myclobutanil	0.000	< 0.100		0.354	0.400	88.6	66.9 - 124	
Naled	0.000	< 0.200		0.981	1.000	98.1	68.0 - 126	
Oxamyl	0.000	< 0.400		1.793	2.000	89.6	66.7 - 124	
Paclobutrazol	0.000	< 0.200		0.744	0.800	93.0	66.2 - 123	
Parathion Methyl	0.000	< 0.200		0.685	0.800	85.6	72.1 - 134	
Permethrin	0.000	< 0.100		0.401	0.400	100.2	69.3 - 129	
Phosmet	0.000	< 0.100		0.374	0.400	93.4	68.1 - 127	
Piperonyl butoxide	0.000	< 1.000		1.809	2.000	90.4	69.0 - 128	
Prallethrin	0.000	< 0.200		0.399	0.400	99.7	67.9 - 126	
Propiconazole	0.000	< 0.200		0.769	0.800	96.1	68.0 - 126	
Propoxur	0.000	< 0.100		0.362	0.400	90.4	67.1 - 125	
Pyrethrins	0.000	< 0.500		0.335	0.413	81.1	69.9 - 130	
Pyridaben	0.000	< 0.100		0.394	0.400	98.5	74.3 - 138	
Spinosad	0.000	< 0.100		0.383	0.388	98.8	74.7 - 139	
Spiromesifen	0.000	< 0.100		0.392	0.400	97.9	70.1 - 130	
Spirotetramat	0.000	< 0.100		0.393	0.400	98.2	68.3 - 127	
Spiroxamine	0.000	< 0.100		0.756	0.800	94.4	67.9 - 126	
Tebuconazol	0.000	< 0.200		0.777	0.800	97.1	67.3 - 125	
Thiacloprid	0.000	< 0.100		0.376	0.400	93.9	67.5 - 125	
Thiamethoxam	0.000	< 0.100		0.378	0.400	94.5	66.7 - 124	
Trifloxystrobin	0.000	< 0.100		0.371	0.400	92.7	68.8 - 128	



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

Report Number: 20-011625/D02.R00
Report Date: 11/02/2020
ORELAP#: OR100028
Purchase Order:
Received: 10/27/20 10:00



Revision: 1.00 Control: CFL-C21
Revised: 08/12/2019 Effective: 08/15/2019

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg		Batch ID: 2009098		Sample ID: 20-011369-0001				
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Acephate	0.000	1.016	0.977	1.000	3.9	< 30	101.6	97.7	50 - 150	
Acequinocyl	0.118	2.800	2.669	4.000	4.8	< 30	67.0	63.8	50 - 150	
Acetamiprid	0.000	0.386	0.368	0.400	4.8	< 30	96.4	91.9	50 - 150	
Aldicarb	0.000	0.765	0.714	0.800	6.9	< 30	95.7	89.3	50 - 150	
Abamectin	0.000	0.850	0.806	1.000	5.4	< 30	85.0	80.6	50 - 150	
Azoxystrobin	0.015	0.362	0.323	0.400	11.3	< 30	86.9	77.2	50 - 150	
Bifenazate	0.000	0.386	0.361	0.400	6.6	< 30	96.5	90.3	50 - 150	
Bifenthrin	0.018	0.310	0.308	0.400	0.9	< 30	73.1	72.4	50 - 150	
Boscalid	0.000	0.728	0.712	0.800	2.2	< 30	91.0	89.0	50 - 150	
Carbaryl	0.000	0.380	0.350	0.400	8.3	< 30	95.1	87.5	50 - 150	
Carbofuran	0.004	0.345	0.322	0.400	6.8	< 30	85.3	79.6	50 - 150	
Chlorantraniliprol	0.009	0.400	0.404	0.400	1.0	< 30	97.6	98.6	50 - 150	
Chlorfenapyr	0.000	1.254	1.365	2.000	8.5	< 30	62.7	68.2	50 - 150	
Chlorpyrifos	0.000	0.177	0.165	0.400	7.6	< 30	44.4	41.1	50 - 150	Q
Clofentezine	0.002	0.203	0.188	0.400	7.4	< 30	50.1	46.5	50 - 150	Q
Cyfluthrin	0.000	1.298	1.318	2.000	1.5	< 30	64.9	65.9	30 - 150	
Cypermethrin	0.000	1.415	1.322	2.000	6.8	< 30	70.8	66.1	50 - 150	
Daminozide	0.006	1.747	1.755	2.000	0.5	< 30	87.1	87.5	30 - 150	
Diazinon	0.000	0.334	0.310	0.400	7.5	< 30	83.5	77.4	50 - 150	
Dichlorvos	0.000	1.808	1.836	2.000	1.5	< 30	90.4	91.8	50 - 150	
Dimethoat	0.005	0.362	0.370	0.400	2.1	< 30	89.4	91.3	50 - 150	
Ethoprophos	0.000	0.352	0.365	0.400	3.5	< 30	88.0	91.2	50 - 150	
Etofenprox	0.010	0.468	0.410	0.800	13.2	< 30	57.2	50.0	50 - 150	
Etoxazol	0.015	0.349	0.390	0.400	11.2	< 30	83.5	93.8	50 - 150	
Fenoxycarb	0.000	0.333	0.310	0.400	7.4	< 30	83.4	77.4	50 - 150	
Fenpyroximat	0.000	0.636	0.599	0.800	6.0	< 30	79.5	74.9	50 - 150	
Fipronil	0.044	0.514	0.513	0.800	0.1	< 30	58.8	58.7	50 - 150	
Fonicamid	0.000	0.945	0.956	1.000	1.2	< 30	94.5	95.6	50 - 150	
Fludioxonil	0.000	0.811	0.817	0.800	0.8	< 30	101.4	102.2	50 - 150	
Hexythiazox	0.010	0.719	0.651	1.000	9.9	< 30	70.9	64.1	50 - 150	
Imazail	0.000	0.316	0.298	0.400	6.0	< 30	79.1	74.5	50 - 150	
Imidacloprid	0.000	0.811	0.665	0.800	19.7	< 30	101.4	83.2	50 - 150	
Kresoxim-Methyl	0.000	0.709	0.675	0.800	5.0	< 30	88.6	84.3	50 - 150	
Malathion	0.010	0.386	0.374	0.400	3.1	< 30	94.0	91.1	50 - 150	
Metaxalyl	0.000	0.379	0.355	0.400	6.5	< 30	94.7	88.7	50 - 150	
Methiocarb	0.016	0.398	0.376	0.400	5.7	< 30	95.4	89.9	50 - 150	
Methomyl	0.000	0.782	0.729	0.800	7.0	< 30	97.8	91.2	50 - 150	
MKG 264	0.000	0.104	0.094	0.400	9.3	< 30	25.9	23.6	50 - 150	Q
Myclobutanil	0.039	0.444	0.405	0.400	9.2	< 30	101.1	91.4	50 - 150	
Naled	0.000	0.724	0.802	1.000	10.2	< 30	72.4	80.2	50 - 150	
Oxamyl	0.000	1.953	1.927	2.000	1.3	< 30	97.6	96.3	50 - 150	
Paclobutrazol	0.028	0.670	0.638	0.800	4.9	< 30	80.2	76.2	50 - 150	
Parathion Methyl	0.022	0.803	0.885	0.800	9.7	< 30	97.6	107.8	30 - 150	
Permethrin	0.000	0.279	0.272	0.400	2.7	< 30	69.8	67.9	50 - 150	
Phosmet	0.000	0.378	0.375	0.400	1.0	< 30	94.6	93.6	50 - 150	
Piperonyl butoxide	0.067	1.669	1.701	2.000	1.9	< 30	80.1	81.7	50 - 150	
Prallethrin	0.787	1.129	1.075	0.400	4.9	< 30	85.6	72.1	50 - 150	
Propiconazole	0.000	0.709	0.633	0.800	11.3	< 30	88.6	79.2	50 - 150	
Propoxur	0.005	0.384	0.372	0.400	3.3	< 30	94.8	91.7	50 - 150	
Pyrethrins	0.022	0.322	0.304	0.413	5.8	< 30	72.6	68.3	50 - 150	
Pyridaben	0.005	0.361	0.331	0.400	8.7	< 30	89.0	81.5	50 - 150	
Spinosad	0.001	0.287	0.278	0.388	3.2	< 30	73.8	71.5	50 - 150	
Spiromesifen	0.000	0.267	0.248	0.400	7.4	< 30	66.8	62.0	50 - 150	
Spirotetramat	0.002	0.454	0.440	0.400	3.2	< 30	113.0	109.4	50 - 150	
Spiroxamine	0.012	0.738	0.731	0.800	0.9	< 30	90.7	89.8	50 - 150	
Tebuconazol	0.000	0.667	0.657	0.800	1.6	< 30	83.4	82.1	50 - 150	
Thiacloprid	0.000	0.383	0.370	0.400	3.5	< 30	95.7	92.4	50 - 150	
Thiamethoxam	0.000	0.392	0.359	0.400	8.6	< 30	98.0	89.9	50 - 150	
Trifloxystrobin	0.004	0.305	0.281	0.400	5.5	< 30	75.3	69.3	50 - 150	



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Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	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.