



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

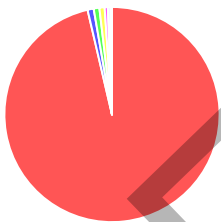
This is an amended version of report# 22-015073/D009.R000.

Reason: Updated product identity.

Customer: GVB Oregon
Product identity: Broad Spectrum CBD Distillate GVL-TST456
Client/Metric ID: .
Laboratory ID: 22-015073-0001

Summary

Potency:

Analyte	Result (%)	 - CBD - CBE - CBC - CBT - CBN - CBDV - CBG	
CBD	87.8		
CBE	0.839		
CBC	0.780		
CBT	0.714		
CBN	0.441		
CBDV	0.325		
CBG	0.231		
		CBD-Total	87.8%
		THC-Total	<LOQ
		(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.

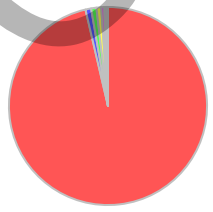


12423 NE Whitaker Way
Portland, OR 97230
503-254-1794

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Customer: GVB Oregon
United States of America (USA)
Product identity: Broad Spectrum CBD Distillate GVL-TST456 .
Client/Metric ID:
Sample Date:
Laboratory ID: 22-015073-0001
Evidence of Cooling: No
Temp: 14.7
Relinquished by: ups

Sample Results

Potency	Method: J AOAC 2015 V98-6 (mod) ^p		Units %	Batch: 2210520	Analyze: 12/13/22 8:43:00 AM
Analyte	As Received	Dry weight	LOQ	Notes	
CBC	0.780		0.0678		
CBC-A	< LOQ		0.0678		
CBC-Total	0.780		0.127		
CBD	87.8		0.678		
CBD-A	< LOQ		0.0678		
CBD-Total	87.8		0.738		
CBDV	0.325		0.0678		
CBDV-A	< LOQ		0.0678		
CBDV-Total	0.325		0.127		
CBE	0.839		0.0678		
CBG	0.231		0.0678		
CBG-A	< LOQ		0.0678		
CBG-Total	0.231		0.127		
CBL	< LOQ		0.0678		
CBL-A	< LOQ		0.0678		
CBL-Total	< LOQ		0.127		
CBN	0.441		0.0678		
CBT	0.714		0.0678		
Δ10-THC	< LOQ		0.0678		
Δ8-THC	< LOQ		0.0678		
Δ8-THCV	< LOQ		0.0678		
Δ9-THC	< LOQ		0.0678		
exo-THC	< LOQ		0.0678		
THC-A	< LOQ		0.0678		
THC-Total	< LOQ		0.127		
THCV	< LOQ		0.0678		
THCV-A	< LOQ		0.0678		
THCV-Total	< LOQ		0.127		
Total Cannabinoids	91.1				



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2210625	12/17/22 AOAC 991.14 (Petrifilm) ^p		
Total Coliforms	< LOQ		cfu/g	10	2210625	12/17/22 AOAC 991.14 (Petrifilm) ^p		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2210626	12/18/22 AOAC 2014.05 (RAPID) ^p		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2210626	12/18/22 AOAC 2014.05 (RAPID) ^p		

Solvents

Method: Residual Solvents by GC/MS^b Units µg/g Batch 2210737 Analyze 12/19/22 11:32 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 (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	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Pesticides										
Method: AOAC 2007.01 & EN 15662 (mod) ^b										
Units mg/kg Batch 2210651 Analyze 12/15/22 02:45 PM										
Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status
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	0.0912	2210673	12/15/22	AOAC 2013.06 (mod.) ^b	pass	
Cadmium	< LOQ	0.200	mg/kg	0.0912	2210673	12/15/22	AOAC 2013.06 (mod.) ^b	pass	
Lead	< LOQ	0.500	mg/kg	0.0912	2210673	12/15/22	AOAC 2013.06 (mod.) ^b	pass	
Mercury	< LOQ	0.100	mg/kg	0.0456	2210673	12/15/22	AOAC 2013.06 (mod.) ^b	pass	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

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
503-254-1794

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

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

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2210520

Laboratory Control Sample										
Analyte	LCS	Result	Spike	Units	% Rec	Limits			Evaluation	Notes
CBDVA	2	0.101	0.100	%	101	80.0	-	120	Acceptable	
CBDV	2	0.111	0.100	%	111	80.0	-	120	Acceptable	
CBE	2	0.106	0.100	%	106	80.0	-	120	Acceptable	
CBDA	1	0.0982	0.096	%	103	90.0	-	110	Acceptable	
CBGA	1	0.0990	0.097	%	103	80.0	-	120	Acceptable	
CBG	1	0.0985	0.095	%	103	80.0	-	120	Acceptable	
CBD	1	0.0986	0.096	%	103	90.0	-	110	Acceptable	
THCV	2	0.104	0.100	%	104	80.0	-	120	Acceptable	
d8THCV	2	0.106	0.100	%	106	80.0	-	120	Acceptable	
THCVA	2	0.0996	0.100	%	99.6	80.0	-	120	Acceptable	
CBN	1	0.101	0.099	%	102	80.0	-	120	Acceptable	
exo-THC	2	0.102	0.100	%	102	80.0	-	120	Acceptable	
d9THC	1	0.105	0.102	%	103	90.0	-	110	Acceptable	
d8THC	1	0.101	0.100	%	100	90.0	-	110	Acceptable	
CBL	2	0.0989	0.100	%	98.9	80.0	-	120	Acceptable	
d10THC	1	0.0939	0.092	%	102	80.0	-	120	Acceptable	
CBG	2	0.107	0.100	%	107	80.0	-	120	Acceptable	
THCA	1	0.0965	0.096	%	101	90.0	-	110	Acceptable	
CBGA	2	0.103	0.100	%	103	80.0	-	120	Acceptable	
CBLA	2	0.105	0.100	%	105	80.0	-	120	Acceptable	
CBT	2	0.105	0.100	%	105	80.0	-	120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBDV	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBE	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBDA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBGA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBG	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBD	<LOQ	0.0077	%	< 0.0077	Acceptable	
THCV	<LOQ	0.0077	%	< 0.0077	Acceptable	
d8THCV	<LOQ	0.0077	%	< 0.0077	Acceptable	
THCVA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBN	<LOQ	0.0077	%	< 0.0077	Acceptable	
exo-THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
d9THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
d8THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBL	<LOQ	0.0077	%	< 0.0077	Acceptable	
d10THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBG	<LOQ	0.0077	%	< 0.0077	Acceptable	
THCA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBGA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBLA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBT	<LOQ	0.0077	%	< 0.0077	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: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

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

Laboratory Quality Control Results

J AOAC 2015 V98-6							
Batch ID: 2210520							
Sample Duplicate							
Sample ID: 22-014754-0001							
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation
CBDVA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBDV	0.0461	0.0462	0.0077	%	0.304	< 20	Acceptable
CBE	0.0526	0.0494	0.0077	%	6.35	< 20	Acceptable
CBDA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBGA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBG	0.0413	0.0458	0.0077	%	10.3	< 20	Acceptable
CBD	90.7	90.4	0.0077	%	0.369	< 20	Acceptable
THCV	0.417	0.414	0.0077	%	0.567	< 20	Acceptable
d8THCV	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
THCVA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBN	1.09	1.08	0.0077	%	0.191	< 20	Acceptable
exo-THC	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
d9THC	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
d8THC	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBL	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
d10THC	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBC	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
THCA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBCA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBLA	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable
CBT	<LOQ	<LOQ	0.0077	%	NA	< 20	Acceptable

Abbreviations

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

Units of Measure:



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Revision: 3 Document ID: 3120
Legacy ID: CFL-C21 Worksheet Validated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg		Batch ID: 2210651				
Method Blank			Laboratory Control Sample					
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Abamectin	0.000	< 0.250		1.034	1.000	103.4	50.0 150	
Acephate	0.000	< 0.200		0.767	0.800	95.9	60.0 120	
Acequinocyl	0.000	< 1.000		3.707	4.000	92.7	40.0 160	
Acetamiprid	0.000	< 0.100		0.397	0.400	99.3	60.0 120	
Aldicarb	0.000	< 0.200		0.786	0.800	98.3	60.0 120	
Azoxystrobin	0.000	< 0.100		0.382	0.400	95.5	60.0 120	
Bifenazate	0.000	< 0.100		0.425	0.400	106.4	60.0 120	
Bifenthrin	0.000	< 0.100		0.384	0.400	96.0	50.0 150	
Boscalid	0.000	< 0.200		0.789	0.800	98.6	60.0 120	
Carbaryl	0.000	< 0.100		0.385	0.400	96.2	60.0 120	
Carbofuran	0.000	< 0.100		0.401	0.400	100.4	60.0 120	
Chlorantraniliprole	0.000	< 0.100		0.395	0.400	98.6	60.0 120	
Chlorfenvapir	0.000	< 0.500		1.685	2.000	84.3	60.0 120	
Chlorpyrifos	0.000	< 0.100		0.588	0.400	147.0	60.0 120	
Clofentezine	0.000	< 0.100		0.397	0.400	99.2	60.0 120	
Cyfluthrin	0.000	< 0.500		1.995	2.000	99.7	50.0 150	
Cypermethrin	0.000	< 0.500		1.919	2.000	96.0	50.0 150	
Daminozide	0.000	< 0.500		1.470	2.000	73.5	60.0 120	
Diazinon	0.000	< 0.100		0.424	0.400	105.9	60.0 120	
Dichlorvos	0.000	< 0.500		1.801	2.000	90.0	60.0 120	
Dimethoate	0.000	< 0.100		0.399	0.400	99.7	60.0 120	
Ethoprophos	0.000	< 0.100		0.394	0.400	98.5	60.0 120	
Etofenprox	0.000	< 0.200		0.780	0.800	97.5	50.0 150	
Etiozazole	0.000	< 0.100		0.393	0.400	98.2	60.0 120	
Fenoxycarb	0.000	< 0.100		0.390	0.400	97.6	60.0 120	
Fenpyroximate	0.000	< 0.200		0.764	0.800	95.5	60.0 120	
Fipronil	0.000	< 0.200		0.666	0.800	83.3	60.0 120	
Fonicamid	0.000	< 0.250		0.984	1.000	98.4	60.0 120	
Fludioxonil	0.000	< 0.200		0.573	0.800	71.6	50.0 150	
Hexythiazox	0.000	< 0.250		0.819	1.000	81.9	60.0 120	
Imazalil	0.000	< 0.100		0.404	0.400	101.1	60.0 120	
Imidacloprid	0.000	< 0.200		0.792	0.800	99.0	60.0 120	
Kresoxim-methyl	0.000	< 0.200		0.782	0.800	97.7	60.0 120	
Malathion	0.000	< 0.100		0.391	0.400	97.6	60.0 120	
Metolaxyl	0.000	< 0.100		0.391	0.400	97.6	60.0 120	
Methiocarb	0.000	< 0.100		0.390	0.400	97.4	60.0 120	
Methomyl	0.000	< 0.200		0.788	0.800	98.5	60.0 120	
MGK-264	0.000	< 0.100		0.389	0.400	97.2	50.0 150	
Myclobutanil	0.000	< 0.100		0.415	0.400	103.7	60.0 120	
Naled	0.000	< 0.250		1.004	1.000	100.4	50.0 150	
Oxamyl	0.000	< 0.500		2.061	2.000	103.0	60.0 120	
Paclobutrazole	0.000	< 0.200		0.786	0.800	98.2	60.0 120	
Parathion-Methyl	0.000	< 0.100		0.374	0.400	93.5	50.0 150	
Permethrin	0.000	< 0.100		0.358	0.400	89.4	50.0 150	
Phosmet	0.000	< 0.100		0.394	0.400	98.5	50.0 150	
Piperonyl butoxide	0.000	< 0.500		1.899	2.000	94.9	60.0 120	
Prallethrin	0.000	< 0.100		0.381	0.400	95.3	60.0 120	
Propiconazole	0.000	< 0.200		0.795	0.800	99.3	60.0 120	
Propoxur	0.000	< 0.100		0.395	0.400	98.6	60.0 120	
Pyrethrin (Summe)	0.001	< 0.100		0.471	0.488	96.5	60.0 120	
Pyridaben	0.000	< 0.100		0.388	0.400	96.9	50.0 150	
Spinosad	0.000	< 0.100		0.384	0.388	99.1	50.0 150	
Spiromesifen	0.000	< 0.100		0.402	0.400	100.4	60.0 120	
Spirotetramat	0.000	< 0.100		0.395	0.400	98.9	60.0 120	
Spiroxamine	0.000	< 0.200		0.780	0.800	97.6	60.0 120	
Tebuconazole	0.000	< 0.200		0.795	0.800	99.4	60.0 120	
Thiacloprid	0.000	< 0.100		0.405	0.400	101.3	60.0 120	
Thiamethoxam	0.000	< 0.100		0.411	0.400	102.9	60.0 120	
Trifloxystrobin	0.000	< 0.100		0.386	0.400	96.4	60.0 120	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Revision: 3 Document ID: 3120
Legacy ID: CFL-C21 Worksheet Validated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 Units: mg/Kg Batch ID: 2210651										
Matrix Spike/Matrix Spike Duplicate Recoveries Sample ID: 22-015283-0001										
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Abamectin	0.000	0.959	1.121	1.000	15.6%	< 30	95.9%	112.1%	50 - 150	
Acephate	0.584	1.296	1.417	0.800	15.7%	< 30	88.9%	104.1%	50 - 150	
Acequinocyl	0.000	2.523	2.882	4.000	13.3%	< 30	63.1%	72.1%	50 - 150	
Acetamiprid	0.000	0.296	0.296	0.400	0.1%	< 30	74.1%	74.0%	50 - 150	
Aldicarb	0.000	0.661	0.687	0.800	3.8%	< 30	82.6%	85.8%	50 - 150	
Azoxystrobin	0.021	0.258	0.260	0.400	0.9%	< 30	59.2%	59.8%	50 - 150	
Bifenazate	0.073	0.358	0.382	0.400	8.2%	< 30	71.3%	77.4%	50 - 150	
Bifenthrin	0.000	0.371	0.354	0.400	4.8%	< 30	92.7%	88.4%	50 - 150	
Boscalid	0.241	0.668	0.716	0.800	10.7%	< 30	53.3%	59.3%	50 - 150	
Carbaryl	0.024	0.261	0.255	0.400	2.5%	< 30	59.1%	57.7%	50 - 150	
Carbofuran	0.000	0.237	0.239	0.400	0.9%	< 30	59.4%	59.9%	50 - 150	
Chlorantraniliprole	0.000	0.279	0.296	0.400	6.0%	< 30	69.8%	74.1%	50 - 150	
Chlorfenapyr	0.000	1.037	1.038	2.000	0.1%	< 30	51.8%	51.9%	50 - 150	
Chlorpyrifos	0.000	0.701	0.561	0.400	22.2%	< 30	175.3%	140.3%	50 - 150	Q
Clofentazine	0.000	0.201	0.212	0.400	5.1%	< 30	50.3%	52.9%	50 - 150	
Cyfluthrin	0.412	1.153	1.261	2.000	13.7%	< 30	37.1%	42.5%	30 - 150	
Cypermethrin	0.000	0.756	0.608	2.000	21.8%	< 30	37.8%	30.4%	50 - 150	Q
Daminozide	0.057	0.954	1.004	2.000	5.4%	< 30	44.9%	47.4%	30 - 150	
Diazinon	0.000	0.106	0.115	0.400	7.9%	< 30	26.5%	28.6%	50 - 150	Q
Dichlorvos	0.074	1.246	1.359	2.000	9.2%	< 30	58.6%	64.2%	50 - 150	
Dimethoate	0.000	0.338	0.348	0.400	2.9%	< 30	84.4%	86.9%	50 - 150	
Ethoprophos	0.000	0.202	0.205	0.400	1.7%	< 30	50.5%	51.3%	50 - 150	
Etofenprox	0.000	0.442	0.454	0.800	2.7%	< 30	55.3%	56.8%	50 - 150	
Etoxazole	0.002	0.349	0.338	0.400	3.2%	< 30	86.8%	84.1%	50 - 150	
Fenoxycarb	0.000	0.210	0.215	0.400	2.4%	< 30	52.4%	53.7%	50 - 150	
Fenpyroximate	0.000	0.248	0.235	0.800	5.3%	< 30	31.0%	29.4%	50 - 150	Q
Fipronil	0.000	0.193	0.193	0.800	0.0%	< 30	24.1%	24.1%	50 - 150	Q
Fonicamid	0.000	0.850	0.910	1.000	6.9%	< 30	85.0%	91.0%	50 - 150	Q
Fludioxonil	0.000	0.657	0.617	0.800	6.3%	< 30	82.1%	77.1%	50 - 150	
Hexythiazox	0.000	0.600	0.563	1.000	6.3%	< 30	60.0%	56.3%	50 - 150	
Imazalil	0.001	0.291	0.293	0.400	0.7%	< 30	72.6%	73.1%	50 - 150	
Imidacloprid	0.000	0.680	0.665	0.800	2.2%	< 30	85.0%	83.2%	50 - 150	
Kresoxim-methyl	0.000	0.414	0.435	0.800	5.1%	< 30	51.7%	54.4%	50 - 150	
Malathion	0.062	0.301	0.311	0.400	4.0%	< 30	59.7%	62.1%	50 - 150	
Metaxyl	0.000	0.274	0.285	0.400	3.9%	< 30	68.6%	71.3%	50 - 150	
Methiocarb	0.000	0.232	0.240	0.400	3.3%	< 30	58.0%	59.9%	50 - 150	
Methomyl	0.000	0.738	0.742	0.800	0.4%	< 30	92.3%	92.7%	50 - 150	
MGK-264	0.000	0.085	0.096	0.400	12.0%	< 30	21.3%	24.1%	50 - 150	Q
Myclobutanil	0.000	0.158	0.170	0.400	7.3%	< 30	39.6%	42.6%	50 - 150	Q
Naled	0.000	0.444	0.449	1.000	1.1%	< 30	44.4%	44.9%	50 - 150	Q
Oxamyl	0.000	1.846	1.823	2.000	1.3%	< 30	92.3%	91.1%	50 - 150	
Paclobutrazole	0.000	0.420	0.451	0.800	7.1%	< 30	52.6%	56.4%	50 - 150	
Parathion-Methyl	0.000	0.106	0.071	0.400	39.4%	< 30	26.6%	17.8%	30 - 150	R, Q
Permethrin	0.016	0.304	0.287	0.400	6.2%	< 30	72.0%	67.7%	50 - 150	
Phosmet	0.000	0.220	0.234	0.400	6.1%	< 30	55.0%	58.5%	50 - 150	
Piperonyl butoxide	0.000	1.580	1.629	2.000	3.1%	< 30	79.0%	81.5%	50 - 150	
Prallethrin	0.000	0.128	0.137	0.400	6.9%	< 30	32.0%	34.2%	50 - 150	Q
Propiconazole	0.059	0.495	0.532	0.800	8.1%	< 30	54.5%	59.1%	50 - 150	
Propoxur	0.007	0.258	0.260	0.400	0.7%	< 30	62.7%	63.2%	50 - 150	
Pyrethrin (Summe)	0.000	0.280	0.268	0.488	6.3%	< 30	57.4%	53.9%	50 - 150	
Pyridaben	0.000	0.245	0.243	0.400	1.0%	< 30	61.3%	60.7%	50 - 150	
Spirosad	0.000	0.276	0.274	0.388	0.9%	< 30	71.2%	70.6%	50 - 150	
Spiromesifen	0.006	0.364	0.355	0.400	2.4%	< 30	89.5%	87.4%	50 - 150	
Spirotetramat	0.000	0.470	0.481	0.400	2.2%	< 30	117.5%	120.2%	50 - 150	
Spiroxamine	0.000	0.586	0.633	0.800	7.7%	< 30	73.2%	79.1%	50 - 150	
Tebuconazole	0.000	0.449	0.450	0.800	0.3%	< 30	56.1%	56.2%	50 - 150	
Thiacloprid	0.000	0.291	0.301	0.400	3.5%	< 30	72.8%	75.4%	50 - 150	
Thiamethoxam	0.000	0.433	0.380	0.400	13.2%	< 30	108.3%	94.9%	50 - 150	
Trifloxystrobin	0.013	0.288	0.288	0.400	0.1%	< 30	68.8%	68.7%	50 - 150	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Revision: 3 Document ID: 3120
Legacy ID: CFL-C21 Worksheet Validated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662		Units: mg/Kg		Batch ID: 2210651				
Method Blank			Laboratory Control Sample					
Analyte	Blank Result	Blank Limits	Notes	LCS Result	LCS Spike	LCS % Rec	Limits	Notes
Abamectin	0.000	< 0.250		0.929	1.000	92.9	50.0 150	
Acephate	0.000	< 0.200		0.763	0.800	95.4	60.0 120	
Acequinocyl	0.000	< 1.000		3.379	4.000	84.5	40.0 160	
Acetamiprid	0.000	< 0.100		0.383	0.400	95.9	60.0 120	
Aldicarb	0.000	< 0.200		0.778	0.800	97.3	60.0 120	
Azoxystrobin	0.000	< 0.100		0.386	0.400	96.5	60.0 120	
Bifenazate	0.000	< 0.100		0.424	0.400	106.1	60.0 120	
Bifenthrin	0.000	< 0.100		0.380	0.400	94.9	50.0 150	
Boscalid	0.000	< 0.200		0.756	0.800	94.5	60.0 120	
Carbaryl	0.000	< 0.100		0.382	0.400	95.4	60.0 120	
Carbofuran	0.000	< 0.100		0.378	0.400	94.5	60.0 120	
Chlorantraniliprole	0.000	< 0.100		0.377	0.400	94.3	60.0 120	
Chlorfenapyr	0.000	< 0.500		1.733	2.000	86.7	60.0 120	
Chlorpyrifos	0.000	< 0.100		0.401	0.400	100.2	60.0 120	
Clofentezine	0.000	< 0.100		0.367	0.400	91.9	60.0 120	
Cyfluthrin	0.000	< 0.500		1.855	2.000	92.7	50.0 150	
Cypermethrin	0.000	< 0.500		1.953	2.000	97.7	50.0 150	
Daminozide	0.398	< 0.500		1.842	2.000	92.1	60.0 120	
Diazinon	0.000	< 0.100		0.413	0.400	103.3	60.0 120	
Dichlorvos	0.000	< 0.500		1.972	2.000	98.6	60.0 120	
Dimethoate	0.000	< 0.100		0.382	0.400	95.4	60.0 120	
Ethoprophos	0.000	< 0.100		0.375	0.400	93.7	60.0 120	
Etofenprox	0.000	< 0.200		0.734	0.800	91.7	50.0 150	
Etiozazole	0.000	< 0.100		0.376	0.400	94.1	60.0 120	
Fenoxycarb	0.000	< 0.100		0.368	0.400	92.1	60.0 120	
Fenpyroximate	0.000	< 0.200		0.756	0.800	94.6	60.0 120	
Fipronil	0.000	< 0.200		0.705	0.800	88.1	60.0 120	
Flonicamid	0.000	< 0.250		0.943	1.000	94.3	60.0 120	
Fludioxonil	0.000	< 0.200		0.778	0.800	97.3	50.0 150	
Hexythiazox	0.000	< 0.250		0.931	1.000	93.1	60.0 120	
Imazalil	0.000	< 0.100		0.381	0.400	95.2	60.0 120	
Imidacloprid	0.000	< 0.200		0.766	0.800	95.8	60.0 120	
Kresoxim-methyl	0.000	< 0.200		0.766	0.800	95.8	60.0 120	
Malathion	0.000	< 0.100		0.378	0.400	94.5	60.0 120	
Metaxalyl	0.000	< 0.100		0.384	0.400	96.0	60.0 120	
Methiocarb	0.000	< 0.100		0.387	0.400	96.8	60.0 120	
Methomyl	0.000	< 0.200		0.748	0.800	93.5	60.0 120	
MGK-264	0.000	< 0.100		0.378	0.400	94.6	50.0 150	
Myclobutanil	0.000	< 0.100		0.367	0.400	91.6	60.0 120	
Naled	0.000	< 0.250		0.945	1.000	94.5	50.0 150	
Oxamyl	0.000	< 0.500		1.919	2.000	96.0	60.0 120	
Paclobutrazole	0.000	< 0.200		0.747	0.800	93.4	60.0 120	
Parathion-Methyl	0.000	< 0.100		0.445	0.400	111.2	50.0 150	
Permethrin	0.000	< 0.100		0.373	0.400	93.3	50.0 150	
Phosmet	0.000	< 0.100		0.374	0.400	93.5	50.0 150	
Piperonyl butoxide	0.000	< 0.500		1.812	2.000	90.6	60.0 120	
Prallethrin	0.000	< 0.100		0.353	0.400	88.2	60.0 120	
Propiconazole	0.000	< 0.200		0.665	0.800	83.1	60.0 120	
Propoxur	0.000	< 0.100		0.382	0.400	95.4	60.0 120	
Pyrethrin (Summe)	0.000	< 0.100		0.457	0.488	93.7	60.0 120	
Pyridaben	0.000	< 0.100		0.372	0.400	93.0	50.0 150	
Spinosad	0.000	< 0.100		0.369	0.388	95.0	50.0 150	
Spiromesifen	0.000	< 0.100		0.394	0.400	98.5	60.0 120	
Spirotetramat	0.000	< 0.100		0.386	0.400	96.6	60.0 120	
Spiroxamine	0.000	< 0.200		0.730	0.800	91.2	60.0 120	
Tebuconazole	0.000	< 0.200		0.625	0.800	78.2	60.0 120	
Thiacloprid	0.000	< 0.100		0.371	0.400	92.7	60.0 120	
Thiamethoxam	0.000	< 0.100		0.395	0.400	98.6	60.0 120	
Trifloxystrobin	0.000	< 0.100		0.382	0.400	95.5	60.0 120	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

Revision: 3 Document ID: 3120
Legacy ID: CFL-C21 Worksheet Validated 10/30/2020

Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 Units: mg/Kg Batch ID: 2210651										
Matrix Spike/Matrix Spike Duplicate Recoveries Sample ID: 22-015283-0001										
Analyte	Result	MS Res	MSD Res	Spike	RPD%	Limit	MS % Rec	MSD % Rec	Limits	Notes
Abamectin	0.000	0.985	0.996	1.000	1.1%	< 30	98.5%	99.6%	50 - 150	
Acephate	0.594	1.311	1.329	0.800	2.5%	< 30	89.7%	91.9%	50 - 150	
Acequinocyl	0.000	2.607	2.910	4.000	11.0%	< 30	65.2%	72.8%	50 - 150	
Acetamiprid	0.000	0.292	0.294	0.400	0.6%	< 30	73.0%	73.4%	50 - 150	
Aldicarb	0.000	0.709	0.705	0.800	0.6%	< 30	88.6%	88.1%	50 - 150	
Azoxystrobin	0.018	0.263	0.254	0.400	3.8%	< 30	61.1%	58.8%	50 - 150	
Bifenazate	0.064	0.363	0.389	0.400	8.4%	< 30	74.8%	81.4%	50 - 150	
Bifenthrin	0.000	0.367	0.350	0.400	4.7%	< 30	91.7%	87.5%	50 - 150	
Boscalid	0.194	0.713	0.708	0.800	0.9%	< 30	64.9%	64.3%	50 - 150	
Carbaryl	0.019	0.260	0.227	0.400	15.0%	< 30	60.2%	51.8%	50 - 150	
Carbofuran	0.000	0.232	0.228	0.400	1.6%	< 30	57.9%	57.0%	50 - 150	
Chlorantraniliprole	0.000	0.307	0.289	0.400	5.9%	< 30	76.7%	72.3%	50 - 150	
Chlorfenapyr	0.000	1.037	1.038	2.000	0.1%	< 30	51.8%	51.9%	50 - 150	
Chlorpyrifos	0.000	0.440	0.371	0.400	17.1%	< 30	110.1%	92.8%	50 - 150	
Clofentazine	0.000	0.202	0.203	0.400	0.3%	< 30	50.5%	50.7%	50 - 150	
Cyfluthrin	0.250	1.437	1.155	2.000	26.9%	< 30	59.3%	45.2%	30 - 150	
Cypermethrin	0.000	1.027	1.038	2.000	1.0%	< 30	51.4%	51.9%	50 - 150	
Daminozide	0.246	1.521	1.523	2.000	0.2%	< 30	63.8%	63.9%	30 - 150	
Diazinon	0.000	0.113	0.116	0.400	2.8%	< 30	28.2%	29.0%	50 - 150	q
Dichlorvos	0.030	1.398	1.456	2.000	4.1%	< 30	68.4%	71.3%	50 - 150	
Dimethoate	0.000	0.339	0.345	0.400	1.8%	< 30	84.8%	86.4%	50 - 150	
Ethoprophos	0.000	0.207	0.206	0.400	0.6%	< 30	51.8%	51.5%	50 - 150	
Etofenprox	0.000	0.445	0.441	0.800	0.9%	< 30	55.7%	55.2%	50 - 150	
Etoxazole	0.005	0.342	0.347	0.400	1.5%	< 30	84.2%	85.4%	50 - 150	
Fenoxycarb	0.000	0.210	0.205	0.400	2.4%	< 30	52.6%	51.3%	50 - 150	
Fenpyroximate	0.000	0.249	0.241	0.800	3.1%	< 30	31.1%	30.1%	50 - 150	q
Fipronil	0.000	0.263	0.299	0.800	12.8%	< 30	32.9%	37.4%	50 - 150	q
Fonicamid	0.000	0.916	0.873	1.000	4.8%	< 30	91.6%	87.3%	50 - 150	
Fludioxonil	0.000	1.020	0.994	0.800	2.5%	< 30	127.5%	124.3%	50 - 150	
Hexythiazox	0.000	0.600	0.563	1.000	6.3%	< 30	60.0%	56.3%	50 - 150	
Imazalil	0.000	0.288	0.285	0.400	0.8%	< 30	71.9%	71.3%	50 - 150	
Imidacloprid	0.000	0.710	0.702	0.800	1.2%	< 30	88.8%	87.8%	50 - 150	
Kresoxim-methyl	0.000	0.425	0.441	0.800	3.6%	< 30	53.2%	55.1%	50 - 150	
Malathion	0.050	0.316	0.322	0.400	2.1%	< 30	66.4%	67.8%	50 - 150	
Metaxyl	0.000	0.288	0.294	0.400	2.0%	< 30	72.1%	73.6%	50 - 150	
Methiocarb	0.000	0.245	0.250	0.400	2.2%	< 30	61.2%	62.6%	50 - 150	
Methomyl	0.000	0.789	0.744	0.800	5.9%	< 30	98.7%	93.0%	50 - 150	
MGK-264	0.000	0.088	0.083	0.400	5.5%	< 30	22.0%	20.8%	50 - 150	q
Myclobutanil	0.000	0.133	0.145	0.400	8.8%	< 30	33.2%	36.3%	50 - 150	q
Naled	0.000	0.447	0.449	1.000	0.5%	< 30	44.7%	44.9%	50 - 150	q
Oxamyl	0.000	1.955	1.993	2.000	1.9%	< 30	97.7%	99.7%	50 - 150	
Paclobutrazole	0.000	0.417	0.422	0.800	1.2%	< 30	52.1%	52.8%	50 - 150	
Parathion-Methyl	0.000	0.040	0.043	0.400	6.8%	< 30	10.0%	10.7%	30 - 150	q
Permethrin	0.059	0.332	0.323	0.400	3.4%	< 30	68.3%	66.0%	50 - 150	
Phosmet	0.000	0.237	0.238	0.400	0.3%	< 30	59.3%	59.5%	50 - 150	
Piperonyl butoxide	0.000	1.648	1.676	2.000	1.6%	< 30	82.4%	83.8%	50 - 150	
Prallethrin	0.000	0.139	0.121	0.400	13.7%	< 30	34.8%	30.4%	50 - 150	q
Propiconazole	0.014	0.459	0.470	0.800	2.4%	< 30	55.6%	56.9%	50 - 150	
Propoxur	0.003	0.255	0.257	0.400	1.0%	< 30	62.8%	63.4%	50 - 150	
Pyrethrin (Summe)	0.000	0.280	0.268	0.488	6.3%	< 30	57.4%	53.9%	50 - 150	
Pyridaben	0.000	0.257	0.248	0.400	3.3%	< 30	64.2%	62.1%	50 - 150	
Spirosad	0.000	0.280	0.280	0.388	0.1%	< 30	72.1%	72.1%	50 - 150	
Spiromesifen	0.025	0.386	0.378	0.400	2.4%	< 30	90.4%	88.3%	50 - 150	
Spirotetramat	0.000	0.459	0.459	0.400	0.1%	< 30	114.7%	114.6%	50 - 150	
Spiroxamine	0.000	0.609	0.630	0.800	3.3%	< 30	76.1%	78.7%	50 - 150	
Tebuconazole	0.000	0.304	0.362	0.800	17.5%	< 30	38.0%	45.3%	50 - 150	q
Thiacloprid	0.000	0.289	0.289	0.400	0.1%	< 30	72.2%	72.1%	50 - 150	
Thiamethoxam	0.000	0.415	0.360	0.400	14.0%	< 30	103.7%	90.1%	50 - 150	
Trifloxystrobin	0.013	0.296	0.296	0.400	0.3%	< 30	70.9%	70.7%	50 - 150	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

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

Laboratory Quality Control Results

Residual Solvents				Batch ID: 2210737					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		514	572	µg/g	89.9	60 - 120	
Isobutane	ND	< 200		640	731	µg/g	87.6	60 - 120	
Butane	ND	< 200		630	731	µg/g	86.2	60 - 120	
2,2-Dimethylpropane	ND	< 200		838	936	µg/g	89.5	60 - 120	
Methanol	ND	< 200		1360	1620	µg/g	84.0	60 - 120	
Ethylene Oxide	ND	< 30		47.9	56.2	µg/g	85.2	60 - 120	
2-Methylbutane	ND	< 200		1340	1610	µg/g	83.2	60 - 120	
Pentane	ND	< 200		1320	1600	µg/g	82.5	60 - 120	
Ethanol	ND	< 200		1360	1610	µg/g	84.5	70 - 130	
Ethyl Ether	ND	< 200		1370	1630	µg/g	84.0	60 - 120	
2,2-Dimethylbutane	ND	< 30		147	171	µg/g	86.0	60 - 120	
Acetone	ND	< 200		1400	1630	µg/g	85.9	60 - 120	
2-Propanol	ND	< 200		1580	1620	µg/g	97.5	60 - 120	
Ethyl Formate	ND	< 500		1340	1670	µg/g	80.2	70 - 130	
Acetonitrile	ND	< 100		416	498	µg/g	83.5	60 - 120	
Methyl Acetate	ND	< 500		1360	1730	µg/g	78.6	70 - 130	
2,3-Dimethylbutane	ND	< 30		143	171	µg/g	83.6	60 - 120	
Dichloromethane	ND	< 60		413	483	µg/g	85.5	60 - 120	
2-Methylpentane	ND	< 30		140	168	µg/g	83.3	60 - 120	
MTBE	ND	< 500		1370	1650	µg/g	83.0	70 - 130	
3-Methylpentane	ND	< 30		127	167	µg/g	76.0	60 - 120	
Hexane	ND	< 30		185	182	µg/g	101.6	60 - 120	
1-Propanol	ND	< 500		1260	1620	µg/g	77.8	70 - 130	
Methyl ethyl ketone	ND	< 500		1290	1620	µg/g	79.6	70 - 130	
Ethyl acetate	ND	< 200		1360	1610	µg/g	84.5	60 - 120	
2-Butanol	ND	< 200		1370	1600	µg/g	85.6	60 - 120	
Tetrahydrofuran	ND	< 100		401	483	µg/g	83.0	60 - 120	
Cyclohexane	ND	< 200		1360	1610	µg/g	84.5	60 - 120	
2-methyl-1-propanol	ND	< 500		1270	1620	µg/g	78.4	70 - 130	
Benzene	ND	< 1		4.69	5.02	µg/g	93.4	60 - 120	
Isopropyl Acetate	ND	< 200		1400	1620	µg/g	86.4	60 - 120	
Heptane	ND	< 200		1440	1610	µg/g	89.4	60 - 120	
1-Butanol	ND	< 500		1280	1630	µg/g	78.5	70 - 130	
Propyl Acetate	ND	< 500		1270	1610	µg/g	78.9	70 - 130	
1,4-Dioxane	ND	< 100		416	491	µg/g	84.7	60 - 120	
2-Ethoxyethanol	ND	< 30		160	181	µg/g	88.4	60 - 120	
Methyl isobutyl ketone	ND	< 500		1290	1620	µg/g	79.6	70 - 130	
3-Methyl-1-butanol	ND	< 500		1290	1630	µg/g	79.1	70 - 130	
Ethylene Glycol	ND	< 200		358	484	µg/g	74.0	60 - 120	
Toluene	ND	< 100		414	485	µg/g	85.4	60 - 120	
Isobutyl Acetate	ND	< 500		1290	1630	µg/g	79.1	70 - 130	
1-Pentanol	ND	< 500		1330	1620	µg/g	75.9	70 - 130	
Butyl Acetate	ND	< 500		1250	1620	µg/g	77.2	70 - 130	
Ethylbenzene	ND	< 200		809	969	µg/g	83.5	60 - 120	
m,p-Xylene	ND	< 200		819	994	µg/g	82.4	60 - 120	
o-Xylene	ND	< 200		806	967	µg/g	83.4	60 - 120	
Cumene	ND	< 30		141	171	µg/g	82.5	60 - 120	
Anisole	ND	< 500		1240	1630	µg/g	76.1	70 - 130	
DMSO	ND	< 500		1280	1680	µg/g	76.2	70 - 130	
1,2-dimethoxyethane	ND	< 50		138	169	µg/g	81.7	70 - 130	
Triethylamine	ND	< 500		1350	1630	µg/g	82.8	70 - 130	
N,N-dimethylformamide	ND	< 150		391	482	µg/g	81.1	70 - 130	
N,N-dimethylacetamide	ND	< 150		385	510	µg/g	75.5	70 - 130	
Pyridine	ND	< 50		164	203	µg/g	80.8	70 - 130	
Sulfone	ND	< 50		128	172	µg/g	74.4	70 - 130	
1,2-Dichloroethane	ND	< 1		0.89	1	µg/g	89.0	70 - 130	
Chloroform	ND	< 1		0.885	1	µg/g	88.5	70 - 130	
Trichloroethylene	ND	< 1		0.912	1	µg/g	91.2	70 - 130	
1,1-Dichloroethane	ND	< 1		0.856	1	µg/g	85.6	70 - 130	



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

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

QC - Sample Duplicate

Sample ID: 22-014730-0001

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	
Methyl ethyl ketone	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	
Methyl isobutyl ketone	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



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

Report Number: 22-015073/D009.R001
Report Date: 12/20/2022
ORELAP#: OR100028
Purchase Order:
Received: 12/09/22 10:44

SAMPLE COA

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.