



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



Report Number: 23-002136/D004.R000
Report Date: 02/28/2023
ORELAP#: OR100028
Purchase Order:
Received: 02/20/23 12:51

Customer: NW Natural Goods
Product identity: Bev-BO 023048-1
Client/Metric ID: .
Laboratory ID: 23-002136-0001

Summary

Potency:

Analyte per 355ml	Result	Limits	Units	Status	
CBD per 355ml	26.8		mg/355ml		CBD-Total per Serving Size 26.8 mg/355ml
CBG per 355ml	0.742		mg/355ml		
					THC-Total per Serving Size <LOQ
					(Reported in milligrams per serving)

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

Analyte	Result (mg/kg)	Limits (mg/kg)	Status
Multi-Residue Pesticide Profile	< LOQ for all analytes		

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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Product identity: Bev-BO 023048-1

Client/Metric ID: .

Sample Date:

Laboratory ID: 23-002136-0001

Evidence of Cooling: No

Temp: 16.9

Relinquished by: ramos

Serving Size #1: 362.1 g

Density: 1.020 g/ml

Sample Results

Potency per 355ml		Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se Batch: 2301692		Analyze: 2/21/23 8:43:00 PM
Analyte	Result	Limits	Units	LOQ	Notes	
CBC per 355ml	< LOQ		mg/355ml	0.360		
CBC-A per 355ml	< LOQ		mg/355ml	0.360		
CBC-Total per 355ml	< LOQ		mg/355ml	0.676		
CBD per 355ml	26.8		mg/355ml	0.360		
CBD-A per 355ml	< LOQ		mg/355ml	0.360		
CBD-Total per 355ml	26.8		mg/355ml	0.676		
CBDV per 355ml	< LOQ		mg/355ml	0.360		
CBDV-A per 355ml	< LOQ		mg/355ml	0.360		
CBDV-Total per 355ml	< LOQ		mg/355ml	0.673		
CBE per 355ml	< LOQ		mg/355ml	0.360		
CBG per 355ml	0.742		mg/355ml	0.360		
CBG-A per 355ml	< LOQ		mg/355ml	0.360		
CBG-Total per 355ml	0.742		mg/355ml	0.673		
CBL per 355ml	< LOQ		mg/355ml	0.360		
CBL-A per 355ml	< LOQ		mg/355ml	0.360		
CBL-Total per 355ml	< LOQ		mg/355ml	0.676		
CBN per 355ml	< LOQ		mg/355ml	0.360		
CBT per 355ml	< LOQ		mg/355ml	0.360		
Δ8-THCV per 355ml	< LOQ		mg/355ml	0.360		
Δ10-THC-9R per 355ml	< LOQ		mg/355ml	0.360		
Δ10-THC-9S per 355ml	< LOQ		mg/355ml	0.360		
Δ10-THC-Total per 355ml	< LOQ		mg/355ml	0.721		
Δ8-THC per 355ml	< LOQ		mg/355ml	0.360		
Δ9-THC per 355ml	< LOQ		mg/355ml	0.360		
exo-THC per 355ml	< LOQ		mg/355ml	0.360		
THC-A per 355ml	< LOQ		mg/355ml	0.360		
THC-Total per 355ml	< LOQ		mg/355ml	0.676		
THCV per 355ml	< LOQ		mg/355ml	0.360		
THCV-A per 355ml	< LOQ		mg/355ml	0.360		
THCV-Total per 355ml	< LOQ		mg/355ml	0.677		
Total Cannabinoids per 355ml	28.3		mg/355ml			



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2301623	02/23/23 AOAC 991.14 (Petrifilm) ^p		
Total Coliforms	< LOQ		cfu/g	10	2301623	02/23/23 AOAC 991.14 (Petrifilm) ^p		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2301624	02/25/23 AOAC 2014.05 (RAPID) ^p		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2301624	02/25/23 AOAC 2014.05 (RAPID) ^p		

Solvents

Method: Residual Solvents by GC/MS ^p						Units µg/g	Batch 2301804	Analyze 02/28/23 02:19 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	

Pesticides

Method: AOAC 2007.01 & EN 15662 (mod) ^p						Units mg/kg	Batch 2301734	Analyze 02/27/23 11:51 AM			
Analyte	Result	Limits	Status	Notes							
Multi-Residue Pesticide Profile	< LOQ for all analytes										



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Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.00381	2301723	02/21/23 AOAC 2013.06 (mod.) ^p	pass	
Cadmium	< LOQ	0.200	mg/kg	0.00381	2301723	02/21/23 AOAC 2013.06 (mod.) ^p	pass	
Lead	< LOQ	0.500	mg/kg	0.00381	2301723	02/21/23 AOAC 2013.06 (mod.) ^p	pass	
Mercury	< LOQ	0.100	mg/kg	0.00191	2301723	02/21/23 AOAC 2013.06 (mod.) ^p	pass	

Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aflatoxin B2 ^y	< LOQ		µg/kg	5.00	2301710	02/24/23 AOAC 2007.01 & EN 15662 (mod) ^p		
Aflatoxin B1 ^y	< LOQ		µg/kg	5.00	2301710	02/24/23 AOAC 2007.01 & EN 15662 (mod) ^p		
Aflatoxin G1 ^y	< LOQ		µg/kg	5.00	2301710	02/24/23 AOAC 2007.01 & EN 15662 (mod) ^p		
Aflatoxin G2 ^y	< LOQ		µg/kg	5.00	2301710	02/24/23 AOAC 2007.01 & EN 15662 (mod) ^p		
Ochratoxin A ^y	< LOQ	20.0	µg/kg	5.00	2301710	02/24/23 AOAC 2007.01 & EN 15662 (mod) ^p	pass	
Total Aflatoxins ^y	0.000	20.0	µg/kg	20.0		02/27/23 AOAC 2007.01 & EN 15662 (mod) ^p	pass	

Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	99.4		g/100g	0.10	2301665	02/21/23 AOAC 925.10 (mod.) ^p		
Water Activity	0.993		Aw	0.030	2301640	02/21/23 AOAC 978.18 ^p		

Notes:

Due to lab closure on 2/24, sample was incubated longer than method protocol for Y&M. All batch QC passed, and microbiology laboratory manager approves the results.



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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

g = g

g/ml = Gram per milliliter

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

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

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

mg/355ml = Milligram per 355ml

% = Percentage of sample

Aw = Water Activity

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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P2320 Multi-Residue Pesticide Profile
Cannabis

Analyte	LOQ (mg/kg)
2,4-D	0.1
Abamectin	0.1
Acephate	0.2
Acequinocyl	0.2
Acetamiprid	0.1
Acetochlor	0.2
Acrinathrin	0.1
Alachlor	0.1
Aldicarb	0.1
Aldoxycarb	0.1
Aldrin	0.1
Ametoctradin	0.1
Ametryn	0.1
Anilazine	0.1
Aspon	0.1
Asulam	0.1
Atrazine	0.1
Atrazine-desethyl	0.1
Azinphos-ethyl	0.1
Azinphos-methyl	0.1
Azoxystrobin	0.1
Benalaxyl	0.1
Bendiocarb	0.1
Benoxacor	0.1
Bensulide	0.1
Bentazon	0.1
Bifenazate	0.1
Bifenox	0.1
Bifenthrin	0.1
Binapacryl	0.1
Boscalid	0.1
Bromacil	0.1
Bromophos-ethyl	0.1
Bromopropylate	0.1
Bromoxynil	0.1
Bupirimate	0.1
Buprofezin	0.1
Butachlor	0.1
Butylate	0.1
Cadusafos	0.1
Captan	0.2
Carbaryl	0.1
Carbendazim	0.1
Carbofuran	0.1
Carbofuran 3-hydroxy	0.1
Carbophenothion	0.1
Carbophenothion-methyl	0.1
Carboxin	0.1

Analyte	LOQ (mg/kg)
Chlorantraniliprol	0.1
Chlordane, cis-	0.1
Chlordane, trans-	0.1
Chlorfenapyr	0.1
Chlorfenvinphos	0.1
Chlorobenzilate	0.1
Chlorpyrifos-ethyl	0.1
Chlorpyrifos-methyl	0.1
Chlorthal-dimethyl (Dacthal)	0.1
Clethodim	0.1
Clethodim sulfone	0.1
Clethodim sulfoxide	0.1
Clofentezine	0.1
Clomazone	0.1
Clopyralid	0.1
Clothianidin	0.1
Coumaphos	0.1
Crotoxypheos	0.1
Cyanofenphos	0.1
Cyanophos	0.1
Cyantraniliprole	0.1
Cyazofamid	0.1
Cyfluthrin	0.1
Cyhalothrin, lambda	0.1
Cymoxanil	0.1
Cypermethrin	0.1
Cyprodinil	0.1
DDD, o,p'-	0.1
DDD, p,p'-	0.1
DDE, o,p'-	0.1
DDE, p,p'-	0.1
DDT, o,p'-	0.1
DDT, p,p'-	0.1
DEET	0.1
Deltamethrin	0.1
Demeton-S	0.1
Demeton-S-methyl	0.1
Demeton-S-methyl-sulfone	0.1
Desmedipham	0.1
Diazinon	0.1
Dicamba	0.1
Dichlofenthion	0.1
Dichlofluanid	0.1
Dichlorbenzamid	0.1
Dichlorvos	0.1
Diclofop	0.1
Diclofop-methyl	0.1
Diclotophos	0.1

Analyte	LOQ (mg/kg)
Dieldrin	0.1
Diethofencarb	0.1
Difenoconazol	0.1
Diffubenzuron	0.1
Diffufenzopyr	0.1
Dimethenamid	0.1
Dimethoat	0.1
Dimethomorph	0.1
Dinoseb	0.1
Dinotefuran	0.1
Dioxathion	0.1
Diphenamid	0.1
Diphenylamine (DPA)	0.1
Disulfoton	0.1
Disulfoton-sulfone	0.1
Disulfoton-Sulfoxide	0.1
Diuron	0.1
DNOC	0.1
Edifenphos	0.1
Endosulfan (alpha isomer)	0.1
Endosulfan (beta isomer)	0.1
Endosulfan-sulfate	0.1
Endrin	0.1
EPN	0.1
EPTC	0.1
Esfenvalerate/Fenvalerate	0.1
Ethiofencarb	0.1
Ethion	0.1
Ethofumesate	0.1
Ethoprophos	0.1
Etofenprox	0.1
Etoxazole	0.1
Etrimfos	0.1
Famoxadone	0.1
Famphur	0.1
Fenamiphos	0.1
Fenamiphos-Sulfone	0.1
Fenamiphos-Sulfoxide	0.1
Fenazaquin	0.1
Fenbuconazole	0.1
Fenhexamid	0.1
Fenobucarb	0.1
Fenoxycarb	0.1
Fenpropathrin	0.1
Fensulfothion	0.1
Fenthion	0.1
Fenuron	0.1
Fipronil	0.1

LOQ= Limit of Quantitation
mg/kg= milligram per kilogram (ppm)



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P2320 Multi-Residue Pesticide Profile
Cannabis

Analyte	LOQ (mg/kg)
Flonicamid	0.1
Fluazifop	0.1
Fluazinam	0.1
Flucythrinate	0.1
Fludioxonil	0.1
Flufenacet	0.1
Flumioxazin	0.1
Flupicolide	0.1
Fluopyram	0.1
Fluoxastrobin	0.1
Flupyradifurone	0.1
Fluridone	0.1
Fluroxypyr	0.1
Fluthiacet-methyl	0.1
Flutolanil	0.1
Flutriafol	0.1
Fluvalinate	0.1
Fluxapyroxad	0.1
Fomesafen	0.1
Formetanate	0.1
Furathiocarb	0.1
Haloxypop	0.1
Heptachlor	0.1
Heptachlor epoxide	0.1
Hexaconazole	0.1
Hexazinone	0.1
Hexythiazox	0.1
Hydropene	0.1
Imazalil	0.1
Imazethapyr	0.1
Imidacloprid	0.1
Indaziflam	0.1
Indoxacarb	0.1
Iprobenfos	0.1
Iprodion	0.1
Isobenzan	0.1
Isafenphos	0.1
Isafenphos-methyl	0.1
Isafenphos-oxon	0.1
Isoprocab	0.1
Isoprothiolane	0.1
Isoproturon	0.1
Isoxaben	0.1
Kresoxim-methyl	0.1
Lindane	0.1
Linuron	0.1
Malaoxon	0.1
Malathion	0.1

Analyte	LOQ (mg/kg)
Mandipropamid	0.1
MCPA	0.1
MCPB	0.1
MCPB	0.1
MCPB	0.1
Mecabarm	0.1
Mepanipyrim	0.1
Mesotrione	0.1
Metalaxyl	0.1
Methamidophos	0.1
Methiocarb	0.1
Methiocarb sulfone	0.1
Methiocarb sulfoxide	0.1
Methomyl	0.1
Methoxyfenozide	0.1
Metolachlor	0.1
Metolcarb	0.1
Metrafenone	0.1
Mevinphos	0.1
MGK 264	0.1
Molinat	0.1
Monocrotophos	0.1
Monolinuron	0.1
Myclobutanil	0.1
Naled	0.1
Napropamide	0.1
Neburon	0.1
Norflurazon	0.1
Novaluron	0.1
Omethoat	0.1
Oryzalin	0.1
Oxadiazon	0.1
Oxadixyl	0.1
Oxamyl	0.1
Oxamyl-oxime	0.1
Oxydemeton-Methyl	0.1
Oxyfluorfen	0.1
Paclobutrazol	0.1
Paraaxon-ethyl	0.1
Paraaxon-methyl	0.1
Parathion-methyl	0.1
Penconazole	0.1
Pendimethalin	0.1
Penflufen	0.1
Penthiopyrad	0.1
Permethrin	0.1
Perthane	0.1
Phenmedipham	0.1

Analyte	LOQ (mg/kg)
Phenothrin	0.1
Phenthoate	0.1
Phorate	0.1
Phorate-Sulfone	0.1
Phorate-Sulfoxide	0.1
Phosalone	0.1
Phosmet	0.1
Phosphamidon	0.1
Phoxim	0.1
Pinoxaden	0.1
Piperonyl Butoxide	0.1
Pirimicarb	0.1
Pirimiphos-ethyl	0.1
Pirimiphos-methyl	0.1
Prallethrin	0.1
Prochloraz	0.1
Procymidone	0.1
Profenofos	0.1
Promecarb	0.1
Prometon	0.1
Prometryn	0.1
Propachlor	0.1
Propamocarb	0.1
Propanil	0.1
Propazine	0.1
Propetamophos	0.1
Propham	0.1
Propiconazole	0.1
Propoxur	0.1
Propyzamide	0.1
Prothiofos	0.1
Pyraclostrobin	0.1
Pyraflufen Ethyl	0.1
Pyrazophos	0.1
Pyrethrin	0.1
Pyridaben	0.1
Pyrimethanil	0.1
Pyriproxifen	0.1
Pyroxasulfone	0.1
Pyroxulam	0.1
Quinalphos	0.1
Quinclorac	0.1
Quinoxifen	0.1
Quintozene(PCNB)	0.2
Quizalofop	0.1
Resmethrin	0.1
Rotenone	0.1
Saflufenacil	0.1

LOQ= Limit of Quantitation
mg/kg= milligram per kilogram (ppm)



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Cannabis

Analyte	LOQ (mg/kg)
Sebuthylazin	0.1
Sethoxydim	0.1
Simazine	0.1
Simetryn	0.1
Spinetoram J/L	0.1
Spinosyn A/D	0.1
Spirodiclofen	0.1
Spiromesifen	0.1
Spirotetramat	0.1
Spiroxamine	0.1
Sulfentrazone	0.1
Sulfotep	0.1
Sulfoxafior	0.1
Sulprofos	0.1
Tebuconazole	0.1
Tebufenozide	0.1
Terbufos	0.1
Terbutylazine	0.1
Terbutryn	0.1
Tetrachlorvinphos	0.1
Tetraconazole	0.1
Tetramethrin	0.1
Thiabendazol	0.1
Thiabendazol-5-hydroxy	0.1
Thiacloprid	0.1
Thiamethoxam	0.1
Thiobencarb	0.1
Thiodicarb	0.1
Thiometon	0.1
Thiophanate-methyl	0.2
Tolfenpyrad	0.1
Tolyfluanid	0.1
Triadimefon	0.1
Triadimenol	0.1
Triazophos	0.1
Trifloxystrobin	0.1
Triflumizole	0.1
Triticonazole	0.1
Zoxamid	0.1

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Updated: 09.12.2022



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Hemp & Cannabis: Usable / Extract / Finished Product
Chain of Custody Record

ORELAP ID: OR100028 ANAB ISO 17025 ID: AT-1508

Document Control ID: 2832 Revision: 5
Effective: 01/04/2022

Company: Northwest Natural Goods Contact: Annie Nair Address: 11791 SE HWY 212 City: Clackamas State: OR Zip Code: 97015 ☒ Email Results: annienair@nwnaturalgoods.com ☐ Ph: () - <i>Billing Contact (if different)</i> Name: Email: Address: City: State: Zip: Ph: () -			Analysis Requested <table border="1"><tr><td>Pesticides - OR 59 Compounds</td><td>Pesticide Multi-Residue - 379 compounds</td><td>Potency</td><td>Residual Solvents</td><td>Water Activity</td><td>Moisture</td><td>Micro: Yeast and Mold</td><td>Micro: E.Coli and Total Coliform</td><td>Heavy Metals</td><td>Mycotoxins</td></tr><tr><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr></table>										Pesticides - OR 59 Compounds	Pesticide Multi-Residue - 379 compounds	Potency	Residual Solvents	Water Activity	Moisture	Micro: Yeast and Mold	Micro: E.Coli and Total Coliform	Heavy Metals	Mycotoxins	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	PO Number: Project ID: Batch ID: Sampled by: Custom Reporting: Source Material: ☐ - Ind. Hemp product ☐ - Rec. Cannabis Reporting Type: ☐ - Compliance ☐ - R&D Report to: ☐ - METRC ☐ - ODA ☐ - USDA ☐ - Other: Turnaround time (TAT - Business Days): ☐ - 5BD ☐ - 3BD* ☐ - 2BD* <i>*Check for availability</i>	
Pesticides - OR 59 Compounds	Pesticide Multi-Residue - 379 compounds	Potency	Residual Solvents	Water Activity	Moisture	Micro: Yeast and Mold	Micro: E.Coli and Total Coliform	Heavy Metals	Mycotoxins																									
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																									
Lab ID	Client Sample Identification	Sample date								Material Type †	Weight (Units)	Comments/Metric ID																						
	Bev - LM 023049-1	02/17/23									362.1g																							
Signature - Relinquished By:			Date	Time	Signature - Received By:			Date	Time	Lab Use Only:																								
Annie Nair			02/20/23	1050	[Signature]			2-20-23	1050	☐ Shipped Via: _____ or ☐ Client drop off Evidence of cooling: ☐ Yes ☐ No - Temp (°C): <u>16.9</u> Sample in good condition: ☐ Yes ☐ No Payment: ☐ Cash ☐ Check ☐ CC ☐ Net: _____ Prelog storage: _____																								
[Signature]			2-20-23	1116	[Signature]			02/20/23	1251																									

† - Material Type Codes: Plant Material (P) ; Isolate (I) ; Concentrate/Extract (C) ; Tincture/Topical (T) ; Edible (E) ; Beverage (B) ; Vapor Product (V)

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



Report Number: 23-002136/D004.R000
Report Date: 02/28/2023
ORELAP#: OR100028
Purchase Order:
Received: 02/20/23 12:51

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

Laboratory Quality Control Results

JAOAC2015 V986 Batch ID: 2301692

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDVA	2	0.0010	0.001	%	99.4	80.0 - 120	Acceptable		
CBDV	2	0.0011	0.001	%	105	80.0 - 120	Acceptable		
CBE	2	0.0010	0.001	%	102	80.0 - 120	Acceptable		
CBD A	1	0.0009	0.001	%	97.8	90.0 - 110	Acceptable		
CBGA	1	0.0010	0.001	%	99.4	80.0 - 120	Acceptable		
CBG	1	0.0010	0.001	%	103	80.0 - 120	Acceptable		
CBD	1	0.0010	0.001	%	102	90.0 - 110	Acceptable		
THCV	2	0.0010	0.001	%	104	80.0 - 120	Acceptable		
d8THCV	2	0.0011	0.001	%	99.8	80.0 - 120	Acceptable		
THCVA	2	0.0010	0.001	%	98.5	80.0 - 120	Acceptable		
CBN	1	0.0010	0.001	%	105	80.0 - 120	Acceptable		
exo-THC	2	0.0010	0.001	%	99.8	80.0 - 120	Acceptable		
d9THC	1	0.0011	0.001	%	107	90.0 - 110	Acceptable		
d8THC	1	0.0011	0.001	%	106	90.0 - 110	Acceptable		
9S-d10THC	1	0.0011	0.001	%	105	80.0 - 120	Acceptable		
CBL	2	0.0010	0.001	%	102	80.0 - 120	Acceptable		
9R-d10THC	1	0.0009	0.001	%	98.8	80.0 - 120	Acceptable		
CB C	2	0.0011	0.001	%	102	80.0 - 120	Acceptable		
THCA	1	0.0009	0.001	%	97.3	90.0 - 110	Acceptable		
CBCA	2	0.0010	0.001	%	94.9	80.0 - 120	Acceptable		
CBLA	2	0.0010	0.001	%	97.5	80.0 - 120	Acceptable		
CBT	2	0.0011	0.001	%	99.7	80.0 - 120	Acceptable		

Method Blank						
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBDV	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBE	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBD A	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBGA	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBG	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBD	<LOQ	0.0001	%	< 0.0001	Acceptable	
THCV	<LOQ	0.0001	%	< 0.0001	Acceptable	
d8THCV	<LOQ	0.0001	%	< 0.0001	Acceptable	
THCVA	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBN	<LOQ	0.0001	%	< 0.0001	Acceptable	
exo-THC	<LOQ	0.0001	%	< 0.0001	Acceptable	
d9THC	<LOQ	0.0001	%	< 0.0001	Acceptable	
d8THC	<LOQ	0.0001	%	< 0.0001	Acceptable	
9S-d10THC	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBL	<LOQ	0.0001	%	< 0.0001	Acceptable	
9R-d10THC	<LOQ	0.0001	%	< 0.0001	Acceptable	
CB C	<LOQ	0.0001	%	< 0.0001	Acceptable	
THCA	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBCA	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBLA	<LOQ	0.0001	%	< 0.0001	Acceptable	
CBT	<LOQ	0.0001	%	< 0.0001	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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Received: 02/20/23 12:51

Revision: 1 Document ID: 7148
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Laboratory Quality Control Results

JAOAC2015 V986 Batch ID: 2301692								
Sample Duplicate Sample ID: 23-0020290001								
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBG	0.0002	0.0002	0.0001	%	0.138	< 20	Acceptable	
CBD	0.0073	0.0073	0.0001	%	1.15	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.0001	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.0001	%	NA	< 20	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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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2301804					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		461	572	µg/g	80.6	60 - 120	
Isobutane	ND	< 200		600	731	µg/g	82.1	60 - 120	
Butane	ND	< 200		598	731	µg/g	81.8	60 - 120	
2,2-Dimethylpropane	ND	< 200		748	936	µg/g	79.9	60 - 120	
Methanol	ND	< 200		1420	1620	µg/g	87.7	60 - 120	
Ethylene Oxide	ND	< 30		43.9	56.2	µg/g	78.1	60 - 120	
2-Methylbutane	ND	< 200		1380	1610	µg/g	85.7	60 - 120	
Pentane	ND	< 200		1400	1600	µg/g	87.5	60 - 120	
Ethanol	ND	< 200		1400	1610	µg/g	87.0	70 - 130	
Ethyl Ether	ND	< 200		1430	1630	µg/g	87.7	60 - 120	
2,2-Dimethylbutane	ND	< 30		149	171	µg/g	87.1	60 - 120	
Acetone	ND	< 200		1410	1630	µg/g	86.5	60 - 120	
2-Propanol	ND	< 200		1410	1620	µg/g	87.0	60 - 120	
Ethyl Formate	ND	< 500		1560	1670	µg/g	93.4	70 - 130	
Acetonitrile	ND	< 100		421	498	µg/g	84.5	60 - 120	
Methyl Acetate	ND	< 500		1560	1730	µg/g	90.2	70 - 130	
2,3-Dimethylbutane	ND	< 30		147	171	µg/g	86.0	60 - 120	
Dichloromethane	ND	< 60		414	483	µg/g	85.7	60 - 120	
2-Methylpentane	ND	< 30		147	168	µg/g	87.5	60 - 120	
MTBE	ND	< 500		1510	1650	µg/g	91.5	70 - 130	
3-Methylpentane	ND	< 30		134	167	µg/g	80.2	60 - 120	
Hexane	ND	< 30		189	182	µg/g	103.8	60 - 120	
1-Propanol	ND	< 500		1420	1620	µg/g	87.7	70 - 130	
Methyl ethyl ketone	ND	< 500		1440	1620	µg/g	88.9	70 - 130	
Ethyl acetate	ND	< 200		1370	1610	µg/g	85.1	60 - 120	
2-Butanol	ND	< 200		1370	1600	µg/g	85.6	60 - 120	
Tetrahydrofuran	ND	< 100		425	483	µg/g	88.0	60 - 120	
Cyclohexane	ND	< 200		1420	1610	µg/g	88.2	60 - 120	
2-methyl-1-propanol	ND	< 500		1430	1620	µg/g	88.3	70 - 130	
Benzene	ND	< 1		5.04	5.02	µg/g	100.4	60 - 120	
Isopropyl Acetate	ND	< 200		1380	1620	µg/g	85.2	60 - 120	
Heptane	ND	< 200		1350	1610	µg/g	83.9	60 - 120	
1-Butanol	ND	< 500		1460	1630	µg/g	89.6	70 - 130	
Propyl Acetate	ND	< 500		1400	1610	µg/g	87.0	70 - 130	
1,4-Dioxane	ND	< 100		418	491	µg/g	85.1	60 - 120	
2-Ethoxyethanol	ND	< 30		154	181	µg/g	85.1	60 - 120	
Methylisobutylketone	ND	< 500		1440	1620	µg/g	88.9	70 - 130	
3-Methyl-1-butanol	ND	< 500		1470	1630	µg/g	90.2	70 - 130	
Ethylene Glycol	ND	< 200		429	484	µg/g	88.6	60 - 120	
Toluene	ND	< 100		413	485	µg/g	85.2	60 - 120	
Isobutyl Acetate	ND	< 500		1420	1630	µg/g	87.1	70 - 130	
1-Pentanol	ND	< 500		1450	1620	µg/g	89.5	70 - 130	
Butyl Acetate	ND	< 500		1410	1620	µg/g	87.0	70 - 130	
Ethylbenzene	ND	< 200		813	969	µg/g	83.9	60 - 120	
m,p-Xylene	ND	< 200		821	994	µg/g	82.6	60 - 120	
o-Xylene	ND	< 200		797	967	µg/g	82.4	60 - 120	
Cumene	ND	< 30		145	171	µg/g	84.8	60 - 120	
Anisole	ND	< 500		1430	1630	µg/g	87.7	70 - 130	
DMSO	ND	< 500		1660	1680	µg/g	98.8	70 - 130	
1,2-dimethoxyethane	ND	< 50		149	169	µg/g	88.2	70 - 130	
Triethylamine	ND	< 500		1450	1630	µg/g	89.0	70 - 130	
N,N-dimethylformamide	ND	< 150		450	482	µg/g	93.4	70 - 130	
N,N-dimethylacetamide	ND	< 150		473	510	µg/g	92.7	70 - 130	
Pyridine	ND	< 50		184	203	µg/g	90.6	70 - 130	
Sulfolane	ND	< 50		158	172	µg/g	91.9	70 - 130	
1,2-Dichloroethane	ND	< 1		1	1	µg/g	100.0	70 - 130	
Chloroform	ND	< 1		1.02	1	µg/g	102.0	70 - 130	
Trichloroethylene	ND	< 1		1.04	1	µg/g	104.0	70 - 130	
1,1-Dichloroethane	ND	< 1		1.02	1	µg/g	102.0	70 - 130	



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QC - Sample Duplicate				Sample ID: 23-001978-0001			
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



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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.