



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



Report Number: 22-011596/D002.R000
Report Date: 10/04/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/27/22 11:55

Customer: NW Natural Goods
Product identity: HEMP - LM 0067
Client/Metric ID: .
Laboratory ID: 22-011596-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.199		mg/4g		CBD-Total per Serving Size 25.5 mg/4g
CBD per 4g	25.5		mg/4g		
CBDV per 4g	0.134		mg/4g		THC-Total per Serving Size <LOQ
CBN per 4g	0.149		mg/4g		
CBT per 4g	0.300		mg/4g		(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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Customer: NW Natural Goods

Product identity: HEMP - LM 0067

Client/Metric ID: .

Sample Date:

Laboratory ID: 22-011596-0001

Evidence of Cooling: No

Temp: 25 °C

Serving Size #1: 4 g

Sample Results

Potency per 4g Method: J AOAC 2015 V98-6 (mod) ^b Units mg/se Batch: 2208227 Analyze: 9/28/22 11:22:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	0.199		mg/4g	0.127	
CBC-A per 4g	< LOQ		mg/4g	0.127	
CBC-Total per 4g	< LOQ		mg/4g	0.238	
CBD per 4g	25.5		mg/4g	0.127	
CBD-A per 4g	< LOQ		mg/4g	0.127	
CBD-Total per 4g	25.5		mg/4g	0.238	
CBDV per 4g	0.134		mg/4g	0.127	
CBDV-A per 4g	< LOQ		mg/4g	0.127	
CBDV-Total per 4g	< LOQ		mg/4g	0.237	
CBE per 4g	< LOQ		mg/4g	0.127	
CBG per 4g	< LOQ		mg/4g	0.127	
CBG-A per 4g	< LOQ		mg/4g	0.127	
CBG-Total per 4g	< LOQ		mg/4g	0.237	
CBL per 4g	< LOQ		mg/4g	0.127	
CBL-A per 4g	< LOQ		mg/4g	0.127	
CBL-Total per 4g	< LOQ		mg/4g	0.238	
CBN per 4g	0.149		mg/4g	0.127	
CBT per 4g	0.300		mg/4g	0.127	
Δ8-THCV per 4g	< LOQ		mg/4g	0.127	
Δ10-THC per 4g	< LOQ		mg/4g	0.127	
Δ8-THC per 4g	< LOQ		mg/4g	0.127	
Δ9-THC per 4g	< LOQ		mg/4g	0.127	
exo-THC per 4g	< LOQ		mg/4g	0.127	
THC-A per 4g	< LOQ		mg/4g	0.127	
THC-Total per 4g	< LOQ		mg/4g	0.238	
THCV per 4g	< LOQ		mg/4g	0.127	
THCV-A per 4g	< LOQ		mg/4g	0.127	
THCV-Total per 4g	< LOQ		mg/4g	0.238	
Total Cannabinoids per 4g	26.3		mg/4g		



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2208167	09/30/22 AOAC 991.14 (Petrifilm) [®]		
Total Coliforms	< LOQ		cfu/g	10	2208167	09/30/22 AOAC 991.14 (Petrifilm) [®]		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2208168	10/01/22 AOAC 2014.05 (RAPID) [®]		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2208168	10/01/22 AOAC 2014.05 (RAPID) [®]		

Solvents		Method: Residual Solvents by GC/MS [®]				Units µg/g	Batch 2208340	Analyze 10/03/22 02:43 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) ^b		Units mg/kg	Batch 2208275	Analyze 09/30/22 12:33 PM
Analyte	Result	Limits	Status	Notes	
Multi-Residue Pesticide Profile	< LOQ for all analytes				

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.0196	2208233	09/29/22 AOAC 2013.06 (mod.) [®]	pass	
Cadmium	< LOQ	0.200	mg/kg	0.0196	2208233	09/29/22 AOAC 2013.06 (mod.) [®]	pass	
Lead	< LOQ	0.500	mg/kg	0.0196	2208233	09/29/22 AOAC 2013.06 (mod.) [®]	pass	
Mercury	< LOQ	0.100	mg/kg	0.00979	2208233	09/29/22 AOAC 2013.06 (mod.) [®]	pass	



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Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	16.5		g/100g	0.10	2208260	09/30/22 AOAC 925.10 (mod.) ^p		
Water Activity	0.660		Aw	0.030	2208200	09/28/22 AOAC 978.18 ^p		



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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, 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.

^h = ISO/IEC 17025:2017 accredited method.

Units of Measure

cfu/g = Colony forming units per gram

g = g

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

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

mg/4g = Milligram per 4g

% = 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
Etoazole	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
Fluxastrobin	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
Haloxypol	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
MCPP	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

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**P2320 Multi-Residue Pesticide Profile
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

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

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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			Analysis Requested										PO Number:		
Contact: Annie Nair													Project ID:		
Address: 11791 SE HWY 212													Batch ID:		
City: Clackamas State: OR Zip Code: 97015													Sampled by:		
☒ Email Results: annienair@nwnaturalgoods.com													Custom Reporting:		
☐ Ph: () -													Source Material: ☐ - Ind. Hemp product ☐ - Rec. Cannabis		
Name: Email:													Reporting Type: ☐ - Compliance ☐ - R&D		
Address:													Report to: ☐ - METRC ☐ - ODA ☐ - USDA ☐ - Other:		
City: State: Zip:													Turnaround time (TAT - Business Days):		
Ph: () -													☐ - 5BD ☐ - 3BD* ☐ - 2BD* *Check for availability		
Lab ID	Client Sample Identification	Sample date	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	Material Type †	Weight (Units)	Comments/Metric ID
	HEMP - LM 0067	09/26/20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		80g	
Signature - Relinquished By:			Date	Time	Signature - Received By:			Date	Time	Lab Use Only:					
Annie Nair			9.27	1025	[Signature]			9.27	1025	☐ Shipped Via: _____ or ☐ Client drop off					
[Signature]			9.27	1115	AR			9/27	11:55	Evidence of cooling: ☐ Yes ☐ No - Temp (°C): 18.3					
										Sample in good condition: ☐ Yes ☐ No					
										Payment: ☐ Cash ☐ Check ☐ CC ☐ Net: _____					
										Prelog storage: _____					

† - **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
P: (503) 254-1794 | Fax: (503) 254-1452
info@columbiyalaboratories.com
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www.columbiyalaboratories.com



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

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2208227

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDVA	2	0.0351	0.034	%	102	80.0 - 120	Acceptable		
CBDV	2	0.0371	0.037	%	102	80.0 - 120	Acceptable		
CBE	2	0.0351	0.035	%	101	80.0 - 120	Acceptable		
CBD	1	0.0335	0.033	%	100	90.0 - 110	Acceptable		
CBSA	1	0.0336	0.034	%	100	80.0 - 120	Acceptable		
CBS	1	0.0345	0.034	%	100	80.0 - 120	Acceptable		
CBD	1	0.0347	0.034	%	102	90.0 - 110	Acceptable		
THCV	2	0.0378	0.038	%	101	80.0 - 120	Acceptable		
deltaTHCV	2	0.0371	0.037	%	101	80.0 - 120	Acceptable		
THCVA	2	0.0336	0.034	%	100	80.0 - 120	Acceptable		
CBN	1	0.0334	0.034	%	99.2	90.0 - 110	Acceptable		
exo-THC	2	0.0333	0.034	%	97.5	80.0 - 120	Acceptable		
deltaTHC	1	0.0341	0.035	%	98.7	90.0 - 110	Acceptable		
deltaTHC	1	0.0326	0.033	%	97.3	80.0 - 120	Acceptable		
CB	2	0.0318	0.033	%	96.9	80.0 - 120	Acceptable		
9SHTC	3	0.0308	0.033	%	92.5	80.0 - 120	Acceptable		
d10THC	1	0.0314	0.032	%	98.3	80.0 - 120	Acceptable		
CB	2	0.0353	0.036	%	97.8	80.0 - 120	Acceptable		
9RHTC	3	0.0288	0.033	%	86.3	80.0 - 120	Acceptable		
THCA	1	0.0339	0.033	%	102	90.0 - 110	Acceptable		
CBSA	2	0.0354	0.035	%	101	80.0 - 120	Acceptable		
CBLA	2	0.0186	0.019	%	99.6	80.0 - 120	Acceptable		
deltaTHCO	3	0.0332	0.033	%	99.6	80.0 - 120	Acceptable		
CB	2	0.0344	0.037	%	92.4	80.0 - 120	Acceptable		
deltaTHCO	3	0.0340	0.033	%	102	80.0 - 120	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBDV	<LOQ	0.003	%	< 0.003	Acceptable	
CBE	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
CBSA	<LOQ	0.003	%	< 0.003	Acceptable	
CBS	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
THCV	<LOQ	0.003	%	< 0.003	Acceptable	
deltaTHCV	<LOQ	0.003	%	< 0.003	Acceptable	
THCVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBN	<LOQ	0.003	%	< 0.003	Acceptable	
exo-THC	<LOQ	0.003	%	< 0.003	Acceptable	
deltaTHC	<LOQ	0.003	%	< 0.003	Acceptable	
deltaTHC	<LOQ	0.003	%	< 0.003	Acceptable	
CB	<LOQ	0.003	%	< 0.003	Acceptable	
9SHTC	<LOQ	0.003	%	< 0.003	Acceptable	
d10THC	<LOQ	0.003	%	< 0.003	Acceptable	
CB	<LOQ	0.003	%	< 0.003	Acceptable	
9RHTC	<LOQ	0.003	%	< 0.003	Acceptable	
THCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBSA	<LOQ	0.003	%	< 0.003	Acceptable	
CBLA	<LOQ	0.003	%	< 0.003	Acceptable	
deltaTHCO	<LOQ	0.003	%	< 0.003	Acceptable	
CB	<LOQ	0.003	%	< 0.003	Acceptable	
deltaTHCO	<LOQ	0.003	%	< 0.003	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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Portland, OR 97230
503-254-1794



Report Number: 22-011596/D002.R000
Report Date: 10/04/2022
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Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6						Batch ID: 2208227		
Sample Duplicate						Sample ID: 22-003409-0003		
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBSA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBS	0.0034	0.0036	0.003	%	5.95	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
dBTHCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
dBTHC	0.115	0.120	0.003	%	4.10	< 20	Acceptable	
CB	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CB	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
9SHHC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CB	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
9RHHC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
dBTHCO	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CB	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
dBTHCO	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	

Abbreviations

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

Units of Measure:



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Revision: 2 Document ID: 7087
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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2208340					
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		623	731	µg/g	85.2	60 - 120	
Butane	ND	< 200		612	731	µg/g	83.7	60 - 120	
2,2-Dimethylpropane	ND	< 200		870	936	µg/g	92.9	60 - 120	
Methanol	ND	< 200		1640	1650	µg/g	99.4	60 - 120	
Ethylene Oxide	ND	< 30		51.5	56.2	µg/g	91.6	60 - 120	
2-Methylbutane	ND	< 200		1440	1650	µg/g	87.3	60 - 120	
Pentane	ND	< 200		1540	1650	µg/g	93.3	60 - 120	
Ethanol	ND	< 200		1540	1660	µg/g	92.8	70 - 130	
Ethyl Ether	ND	< 200		1440	1630	µg/g	88.3	60 - 120	
2,2-Dimethylbutane	ND	< 30		160	189	µg/g	84.7	60 - 120	
Acetone	ND	< 200		1570	1650	µg/g	95.2	60 - 120	
2-Propanol	ND	< 200		1560	1650	µg/g	94.5	60 - 120	
Ethyl Formate	ND	< 500		1280	1610	µg/g	79.5	70 - 130	
Acetonitrile	ND	< 100		469	504	µg/g	93.1	60 - 120	
Methyl Acetate	ND	< 500		1690	1630	µg/g	103.7	70 - 130	
2,3-Dimethylbutane	ND	< 30		164	174	µg/g	94.3	60 - 120	
Dichloromethane	ND	< 60		450	521	µg/g	86.4	60 - 120	
2-Methylpentane	ND	< 30		164	187	µg/g	87.7	60 - 120	
MTBE	ND	< 500		1460	1600	µg/g	91.3	70 - 130	
3-Methylpentane	ND	< 30		168	188	µg/g	89.4	60 - 120	
Hexane	ND	< 30		165	182	µg/g	90.7	60 - 120	
1-Propanol	ND	< 500		1790	1610	µg/g	111.2	70 - 130	
Methylethylketone	ND	< 500		1680	1600	µg/g	105.0	70 - 130	
Ethyl acetate	ND	< 200		1550	1630	µg/g	95.1	60 - 120	
2-Butanol	ND	< 200		1550	1630	µg/g	95.1	60 - 120	
Tetrahydrofuran	ND	< 100		434	506	µg/g	85.8	60 - 120	
Cyclohexane	ND	< 200		1420	1640	µg/g	86.6	60 - 120	
2-methyl-1-propanol	ND	< 500		1580	1620	µg/g	97.5	70 - 130	
Benzene	ND	< 1		4.22	4.93	µg/g	85.6	60 - 120	
Isopropyl Acetate	ND	< 200		1560	1640	µg/g	95.1	60 - 120	
Heptane	ND	< 200		1550	1630	µg/g	95.1	60 - 120	
1-Butanol	ND	< 500		1710	1600	µg/g	106.9	70 - 130	
Propyl Acetate	ND	< 500		1730	1620	µg/g	106.8	70 - 130	
1,4-Dioxane	ND	< 100		424	493	µg/g	86.0	60 - 120	
2-Ethoxyethanol	ND	< 30		156	171	µg/g	91.2	60 - 120	
Methylisobutylketone	ND	< 500		1750	1620	µg/g	108.0	70 - 130	
3-Methyl-1-butanol	ND	< 500		1760	1610	µg/g	109.3	70 - 130	
Ethylene Glycol	ND	< 200		503	494	µg/g	101.8	60 - 120	
Toluene	ND	< 100		420	506	µg/g	83.0	60 - 120	
Isobutyl Acetate	ND	< 500		1800	1620	µg/g	111.1	70 - 130	
1-Pentanol	ND	< 500		1880	1610	µg/g	116.8	70 - 130	
Butyl Acetate	ND	< 500		1740	1610	µg/g	108.1	70 - 130	
Ethylbenzene	ND	< 200		852	996	µg/g	85.5	60 - 120	
m,p-Xylene	ND	< 200		871	1010	µg/g	86.2	60 - 120	
o-Xylene	ND	< 200		841	979	µg/g	85.9	60 - 120	
Cumene	ND	< 30		153	188	µg/g	81.4	60 - 120	
Anisole	ND	< 500		1390	1610	µg/g	86.3	70 - 130	
DMSO	ND	< 500		1340	1600	µg/g	83.8	70 - 130	
1,2-dimethoxyethane	ND	< 50		199	190	µg/g	104.7	70 - 130	
Triethylamine	ND	< 500		1480	1610	µg/g	91.9	70 - 130	
N,N-dimethylformamide	ND	< 150		482	496	µg/g	97.2	70 - 130	
N,N-dimethylacetamide	ND	< 150		496	483	µg/g	102.7	70 - 130	
Pyridine	ND	< 50		154	167	µg/g	92.2	70 - 130	
1,2-Dichloroethane	ND	< 1		0.882	1	µg/g	88.2	70 - 130	
Chloroform	ND	< 1		0.899	1	µg/g	89.9	70 - 130	
Trichloroethylene	ND	< 1		0.818	1	µg/g	81.8	70 - 130	
1,1-Dichloroethane	ND	< 1		0.893	1	µg/g	89.3	70 - 130	



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

QC - Sample Duplicate				Sample ID: 22-011486-0001			
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	
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: 22-011596/D002.R000
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12423 NE Whitaker Way
Portland, OR 97230
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Report Number: 22-011596/D002.R000
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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.