



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

Customer: NW Natural Goods
Product identity: HEMP - PR0025
Client/Metric ID: .
Laboratory ID: 22-011345-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.168		mg/4g		CBD-Total per Serving Size 20.8 mg/4g
CBD per 4g	20.8		mg/4g		
CBG per 4g	9.28		mg/4g		THC-Total per Serving Size <LOQ
CBT per 4g	0.251		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.



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

Customer: NW Natural Goods

Product identity: HEMP - PR0025

Client/Metric ID: .

Sample Date:

Laboratory ID: 22-011345-0001

Evidence of Cooling: No

Temp: 19.9 °C

Relinquished by: ramos

Serving Size #1: 4 g

Sample Results

Potency per 4g					
Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se		Batch: 2208036	
				Analyze: 9/22/22 10:54:00 PM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	0.168		mg/4g	0.125	
CBC-A per 4g	< LOQ		mg/4g	0.125	
CBC-Total per 4g	< LOQ		mg/4g	0.234	
CBD per 4g	20.8		mg/4g	0.125	
CBD-A per 4g	< LOQ		mg/4g	0.125	
CBD-Total per 4g	20.8		mg/4g	0.234	
CBDV per 4g	< LOQ		mg/4g	0.125	
CBDV-A per 4g	< LOQ		mg/4g	0.125	
CBDV-Total per 4g	< LOQ		mg/4g	0.233	
CBE per 4g	< LOQ		mg/4g	0.125	
CBG per 4g	9.28		mg/4g	0.125	
CBG-A per 4g	< LOQ		mg/4g	0.125	
CBG-Total per 4g	9.28		mg/4g	0.233	
CBL per 4g	< LOQ		mg/4g	0.125	
CBL-A per 4g	< LOQ		mg/4g	0.125	
CBL-Total per 4g	< LOQ		mg/4g	0.234	
CBN per 4g	< LOQ		mg/4g	0.125	
CBT per 4g	0.251		mg/4g	0.125	
Δ8-THCV per 4g	< LOQ		mg/4g	0.125	
Δ10-THC per 4g	< LOQ		mg/4g	0.125	
Δ8-THC per 4g	< LOQ		mg/4g	0.125	
Δ9-THC per 4g	< LOQ		mg/4g	0.125	
exo-THC per 4g	< LOQ		mg/4g	0.125	
THC-A per 4g	< LOQ		mg/4g	0.125	
THC-Total per 4g	< LOQ		mg/4g	0.234	
THCV per 4g	< LOQ		mg/4g	0.125	
THCV-A per 4g	< LOQ		mg/4g	0.125	
THCV-Total per 4g	< LOQ		mg/4g	0.234	
Total Cannabinoids per 4g	30.6		mg/4g		



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2207959	09/24/22 AOAC 991.14 (Petrifilm) [®]		
Total Coliforms	< LOQ		cfu/g	10	2207959	09/24/22 AOAC 991.14 (Petrifilm) [®]		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2207960	09/25/22 AOAC 2014.05 (RAPID) [®]		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2207960	09/25/22 AOAC 2014.05 (RAPID) [®]		

Solvents Method: Residual Solvents by GC/MS[®] Units µg/g Batch 2208142 Analyze 09/27/22 11:27 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	

Pesticides Method: AOAC 2007.01 & EN 15662 (mod)[®] Units mg/kg Batch 2208160 Analyze 09/28/22 01:36 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	0.0161	2208071	09/23/22 AOAC 2013.06 (mod.) [®]	pass	
Cadmium	< LOQ	0.200	mg/kg	0.0161	2208071	09/23/22 AOAC 2013.06 (mod.) [®]	pass	
Lead	< LOQ	0.500	mg/kg	0.0161	2208071	09/23/22 AOAC 2013.06 (mod.) [®]	pass	
Mercury	< LOQ	0.100	mg/kg	0.00805	2208071	09/23/22 AOAC 2013.06 (mod.) [®]	pass	



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	17.8		g/100g	0.10	2208152	09/27/22 AOAC 925.10 (mod.) ^p		
Water Activity	0.691		Aw	0.030	2208042	09/23/22 AOAC 978.18 ^p		



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

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.

^p = 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



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00



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
Crotoxiphos	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
Dichlofluandil	0.1
Dichlorbenzamid	0.1
Dichlorvos	0.1
Diclofop	0.1
Diclofop-methyl	0.1
Dicrotophos	0.1

Analyte	LOQ (mg/kg)
Dieldrin	0.1
Diethofencarb	0.1
Difenoconazol	0.1
Diflubenzuron	0.1
Diflufenzopyr	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
Etozazole	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)



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00



P2320 Multi-Residue Pesticide Profile
Cannabis

Analyte	LOQ (mg/kg)
Fonicamid	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
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
Isufenphos	0.1
Isufenphos-methyl	0.1
Isufenphos-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
Metaxyl	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
Oxychlorane	0.1
Oxydemeton-Methyl	0.1
Oxyfluorfen	0.1
Paclobutrazol	0.1
Paraoxon-ethyl	0.1
Paraoxon-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
Pyroxsulam	0.1
Quinalphos	0.1
Quinclorac	0.1
Quinoxifen	0.1
Quintozene(PCNB)	0.2
Quizalofop	0.1
Resmethrin	0.1
Rotenone	0.1
Safufenacil	0.1

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



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00



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
Sulfoxaflor	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
Thiodicarb	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)



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00



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

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

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

Company: Northwest Natural Goods Contact: Annie Nair Address: 11791 SE HWY 212 City: Clackamas State: OR Zip Code: 97015 <input checked="" type="checkbox"/> Email Results: annienair@nwnaturalgoods.com <input type="checkbox"/> Ph: () - <i>Billing Contact (if different)</i> Name: Email: Address: City: State: Zip: Ph: () -			Analysis Requested 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: <input type="checkbox"/> - Ind. Hemp product <input type="checkbox"/> - Rec. Cannabis Reporting Type: <input type="checkbox"/> - Compliance <input type="checkbox"/> - R&D Report to: <input type="checkbox"/> - METRC <input type="checkbox"/> - ODA <input type="checkbox"/> - USDA <input type="checkbox"/> - Other: Turnaround time (TAT - Business Days): <input checked="" type="checkbox"/> - 5BD <input type="checkbox"/> - 3BD* <input type="checkbox"/> - 2BD* <i>*Check for availability</i>			
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 - PR 0025	09/21/22	✓	✓	✓	✓	✓	✓	✓	✓	✓			80g		
Signature - Relinquished By: Annie Nair 			Date: 9.21 Time: 1020	Signature - Received By: 			Date: 9.21 Time: 1020	Signature - Received By: 			Date: 9.21 Time: 182	Lab Use Only: <input type="checkbox"/> Shipped Via: _____ or <input type="checkbox"/> Client drop off Evidence of cooling: <input type="checkbox"/> Yes <input type="checkbox"/> No - Temp (°C): 19.4 Sample in good condition: <input type="checkbox"/> Yes <input type="checkbox"/> No Payment: <input type="checkbox"/> Cash <input type="checkbox"/> Check <input type="checkbox"/> CC <input type="checkbox"/> 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@columbiaboratories.com
 Page _____ of _____
 www.columbiaboratories.com



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

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

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2208036

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0362	0.033	%	109	80.0 - 120	Acceptable	
CBDV	2	0.0378	0.033	%	113	80.0 - 120	Acceptable	
CBE	2	0.0359	0.033	%	108	80.0 - 120	Acceptable	
CBDA	1	0.0353	0.033	%	106	90.0 - 110	Acceptable	
CBGA	1	0.0349	0.033	%	106	80.0 - 120	Acceptable	
CBG	1	0.0385	0.036	%	107	80.0 - 120	Acceptable	
CBD	1	0.0388	0.036	%	108	90.0 - 110	Acceptable	
THCV	2	0.0378	0.033	%	113	80.0 - 120	Acceptable	
d8THCV	2	0.0380	0.033	%	114	80.0 - 120	Acceptable	
THCVA	2	0.0355	0.033	%	106	80.0 - 120	Acceptable	
CBN	1	0.0392	0.036	%	108	90.0 - 110	Acceptable	
exo-THC	2	0.0361	0.033	%	108	80.0 - 120	Acceptable	
d9THC	1	0.0415	0.039	%	108	90.0 - 110	Acceptable	
d8THC	1	0.0365	0.033	%	109	80.0 - 120	Acceptable	
CBL	2	0.0346	0.033	%	104	80.0 - 120	Acceptable	
d10THC	1	0.0319	0.033	%	95.7	80.0 - 120	Acceptable	
CBC	2	0.0371	0.033	%	111	80.0 - 120	Acceptable	
THCA	1	0.0335	0.032	%	105	90.0 - 110	Acceptable	
CBCA	2	0.0368	0.033	%	110	80.0 - 120	Acceptable	
CBLA	2	0.0372	0.033	%	112	80.0 - 120	Acceptable	
CBT	2	0.0353	0.033	%	106	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	
CBDA	<LOQ	0.003	%	< 0.003	Acceptable	
CBGA	<LOQ	0.003	%	< 0.003	Acceptable	
CBG	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
THCV	<LOQ	0.003	%	< 0.003	Acceptable	
d8THCV	<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	
d9THC	<LOQ	0.003	%	< 0.003	Acceptable	
d8THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBL	<LOQ	0.003	%	< 0.003	Acceptable	
d10THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBC	<LOQ	0.003	%	< 0.003	Acceptable	
THCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBLA	<LOQ	0.003	%	< 0.003	Acceptable	
CBT	<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



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

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

Laboratory Quality Control Results

J AOAC 2015 V98-6		Batch ID: 2208036						
Sample Duplicate		Sample ID: 22-011299-0001						
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	
CBDA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	0.0063	0.0054	0.003	%	15.1	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d8THCV	<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	
d9THC	0.239	0.207	0.003	%	14.5	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	0.0045	0.0039	0.003	%	14.2	< 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	
CBT	<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:



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

Revision: Document ID:
 Legacy ID: Effective:

Laboratory Quality Control Results

Residual Solvents				Batch ID: 2208142					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		525	572	µg/g	91.8	60 - 120	
Isobutane	ND	< 200		638	731	µg/g	87.3	60 - 120	
Butane	ND	< 200		628	731	µg/g	85.9	60 - 120	
2,2-Dimethylpropane	ND	< 200		887	938	µg/g	94.8	60 - 120	
Methanol	ND	< 200		1950	1650	µg/g	118.2	60 - 120	
Ethylene Oxide	ND	< 30		49.4	56.2	µg/g	87.9	60 - 120	
2-Methylbutane	ND	< 200		1840	1650	µg/g	111.5	60 - 120	
Pentane	ND	< 200		1960	1650	µg/g	118.8	60 - 120	
Ethanol	ND	< 200		1930	1660	µg/g	116.3	70 - 130	
Ethyl Ether	ND	< 200		1910	1630	µg/g	117.2	60 - 120	
2,2-Dimethylbutane	ND	< 30		215	189	µg/g	113.8	60 - 120	
Acetone	ND	< 200		1970	1650	µg/g	119.4	60 - 120	
2-Propanol	ND	< 200		1900	1650	µg/g	115.2	60 - 120	
Ethyl Formate	ND	< 500		1710	1610	µg/g	106.2	70 - 130	
Acetonitrile	ND	< 100		588	504	µg/g	116.7	60 - 120	
Methyl Acetate	ND	< 500		1980	1630	µg/g	121.5	70 - 130	
2,3-Dimethylbutane	ND	< 30		205	174	µg/g	117.8	60 - 120	
Dichloromethane	ND	< 60		597	521	µg/g	114.6	60 - 120	
2-Methylpentane	ND	< 30		203	187	µg/g	108.6	60 - 120	
MTBE	ND	< 500		1850	1600	µg/g	115.6	70 - 130	
3-Methylpentane	ND	< 30		220	188	µg/g	117.0	60 - 120	
Hexane	ND	< 30		217	182	µg/g	119.2	60 - 120	
1-Propanol	ND	< 500		1880	1610	µg/g	116.8	70 - 130	
Methyl ethyl ketone	ND	< 500		1930	1600	µg/g	120.6	70 - 130	
Ethyl acetate	ND	< 200		1900	1630	µg/g	116.6	60 - 120	
2-Butanol	ND	< 200		1780	1630	µg/g	109.2	60 - 120	
Tetrahydrofuran	ND	< 100		590	508	µg/g	116.6	60 - 120	
Cyclohexane	ND	< 200		1910	1640	µg/g	116.5	60 - 120	
2-methyl-1-propanol	ND	< 500		1730	1620	µg/g	106.8	70 - 130	
Benzene	ND	< 1		5.52	4.93	µg/g	112.0	60 - 120	
Isopropyl Acetate	ND	< 200		1890	1640	µg/g	115.2	60 - 120	
Heptane	ND	< 200		1910	1630	µg/g	117.2	60 - 120	
1-Butanol	ND	< 500		1760	1600	µg/g	110.0	70 - 130	
Propyl Acetate	ND	< 500		1880	1620	µg/g	116.0	70 - 130	
1,4-Dioxane	ND	< 100		541	493	µg/g	109.7	60 - 120	
2-Ethoxyethanol	ND	< 30		172	171	µg/g	100.6	60 - 120	
Methylisobutylketone	ND	< 500		1870	1620	µg/g	115.4	70 - 130	
3-Methyl-1-butanol	ND	< 300		1880	1610	µg/g	115.5	70 - 130	
Ethylene Glycol	ND	< 200		590	494	µg/g	117.4	60 - 120	
Toluene	ND	< 100		537	508	µg/g	106.1	60 - 120	
Isobutyl Acetate	ND	< 500		1920	1620	µg/g	118.5	70 - 130	
1-Pentanol	ND	< 500		1930	1610	µg/g	119.9	70 - 130	
Butyl Acetate	ND	< 500		1840	1610	µg/g	114.3	70 - 130	
Ethylbenzene	ND	< 200		1050	998	µg/g	105.4	60 - 120	
m,p-Xylene	ND	< 200		1070	1010	µg/g	105.9	60 - 120	
o-Xylene	ND	< 200		1030	979	µg/g	105.2	60 - 120	
Cumene	ND	< 30		200	188	µg/g	106.4	60 - 120	
Anisole	ND	< 500		1670	1610	µg/g	103.7	70 - 130	
DMSO	ND	< 500		1590	1600	µg/g	99.4	70 - 130	
1,2-dimethoxyethane	ND	< 50		227	190	µg/g	119.5	70 - 130	
Triethylamine	ND	< 500		1730	1610	µg/g	107.5	70 - 130	
N,N-dimethylformamide	ND	< 150		545	496	µg/g	109.9	70 - 130	
N,N-dimethylacetamide	ND	< 150		541	483	µg/g	112.0	70 - 130	
Pyridine	ND	< 50		178	167	µg/g	106.6	70 - 130	
1,2-Dichloroethane	ND	< 1		1.32	1	µg/g	132.0	70 - 130	Q1
Chloroform	ND	< 1		1.24	1	µg/g	124.0	70 - 130	
Trichloroethylene	ND	< 1		1.29	1	µg/g	129.0	70 - 130	



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

Revision: Document ID:
 Legacy ID: Effective:

QC- Sample Duplicate	Sample ID: 22-011068-0001						
Analyte	Result	Org. Result	LOQ Units	RPD	Limits	Accept/ Fail	Notes
Propane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30 µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100 µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60 µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500 µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Methylethylketone	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100 µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2-methyl-1-propanol	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1 µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
1-Butanol	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100 µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Methylisobutylketone	ND	ND	500 µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	100 µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200 µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200 µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500 µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500 µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50 µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500 µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150 µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150 µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50 µg/g	0.0	< 20	Acceptable	
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	

Abbreviations

ND - None Detected at or above MRL
 RPD- Relative Percent Difference
 LOQ- Limit of Quantitation
 Q1- Quality control result biased high. Only non-detect samples reported.

Units of Measure:

µg/g- Microgram per gram or ppm



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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00





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



Report Number: 22-011345/D002.R000
Report Date: 09/28/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/21/22 00:00

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.