



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



Report Number: 22-011150/D003.R000
Report Date: 09/27/2022
ORELAP#: OR100028
Purchase Order:
Received: 09/16/22 01:35

Customer: NW Natural Goods
Product identity: HEMP-BB 0083
Client/Metric ID: .
Laboratory ID: 22-011150-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.217		mg/4g		CBD-Total per Serving Size 28.2 mg/4g
CBD per 4g	28.2		mg/4g		
CBDV per 4g	0.143		mg/4g		THC-Total per Serving Size <LOQ
CBN per 4g	0.160		mg/4g		
CBT per 4g	0.330		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-BB 0083

Client/Metric ID: .

Sample Date:

Laboratory ID: 22-011150-0001

Evidence of Cooling: No

Temp: 20.3 °C

Relinquished by: client

Serving Size #1: 4 g

Sample Results

Potency per 4g		Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se Batch: 2207914		Analyze: 9/20/22 1:01:00 AM
Analyte	Result	Limits	Units	LOQ	Notes	
CBC per 4g	0.217		mg/4g	0.128		
CBC-A per 4g	< LOQ		mg/4g	0.128		
CBC-Total per 4g	< LOQ		mg/4g	0.239		
CBD per 4g	28.2		mg/4g	0.128		
CBD-A per 4g	< LOQ		mg/4g	0.128		
CBD-Total per 4g	28.2		mg/4g	0.239		
CBDV per 4g	0.143		mg/4g	0.128		
CBDV-A per 4g	< LOQ		mg/4g	0.128		
CBDV-Total per 4g	< LOQ		mg/4g	0.238		
CBE per 4g	< LOQ		mg/4g	0.128		
CBG per 4g	< LOQ		mg/4g	0.128		
CBG-A per 4g	< LOQ		mg/4g	0.128		
CBG-Total per 4g	< LOQ		mg/4g	0.238		
CBL per 4g	< LOQ		mg/4g	0.128		
CBL-A per 4g	< LOQ		mg/4g	0.128		
CBL-Total per 4g	< LOQ		mg/4g	0.239		
CBN per 4g	0.160		mg/4g	0.128		
CBT per 4g	0.330		mg/4g	0.128		
Δ8-THCV per 4g	< LOQ		mg/4g	0.128		
Δ10-THC per 4g	< LOQ		mg/4g	0.128		
Δ8-THC per 4g	< LOQ		mg/4g	0.128		
Δ9-THC per 4g	< LOQ		mg/4g	0.128		
exo-THC per 4g	< LOQ		mg/4g	0.128		
THC-A per 4g	< LOQ		mg/4g	0.128		
THC-Total per 4g	< LOQ		mg/4g	0.239		
THCV per 4g	< LOQ		mg/4g	0.128		
THCV-A per 4g	< LOQ		mg/4g	0.128		
THCV-Total per 4g	< LOQ		mg/4g	0.239		
Total Cannabinoids per 4g	29.1		mg/4g			



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2207830	09/19/22 AOAC 991.14 (Petrifilm) [®]		
Total Coliforms	< LOQ		cfu/g	10	2207830	09/19/22 AOAC 991.14 (Petrifilm) [®]		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2207831	09/20/22 AOAC 2014.05 (RAPID) [®]		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2207831	09/20/22 AOAC 2014.05 (RAPID) [®]		

Solvents Method: Residual Solvents by GC/MS[®] Units µg/g Batch 2208084 Analyze 09/26/22 11:07 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 2207991 Analyze 09/23/22 01:32 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	0.0165	2208071	09/23/22 AOAC 2013.06 (mod.) [®]		pass
Cadmium	< LOQ	0.200	mg/kg	0.0165	2208071	09/23/22 AOAC 2013.06 (mod.) [®]		pass
Lead	< LOQ	0.500	mg/kg	0.0165	2208071	09/23/22 AOAC 2013.06 (mod.) [®]		pass
Mercury	< LOQ	0.100	mg/kg	0.00826	2208071	09/23/22 AOAC 2013.06 (mod.) [®]		pass



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Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	16.9		g/100g	0.10	2208048	09/22/22 AOAC 925.10 (mod.) ^p		
Water Activity	0.679		Aw	0.030	2207856	09/19/22 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.

^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



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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 <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 - BB 0083	09/07/22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		80g	
Signature - Relinquished By: Annie Nair 			Date: 9.16.22	Time: 1040	Signature - Received By: 			Date: 9.16.22	Time: 1040	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): <u>20.3</u> 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 with the [current terms of service](#) associated with this COC. By signing "Relinquished by" you are agreeing to these terms
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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
Bifenoxy	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
Crotoxyphos	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
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
Etrifos	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)
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
Malaaxon	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)



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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
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
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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 mg/kg= milligram per kilogram (ppm)



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

Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2207914

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits		Evaluation	Notes
CBDVA	2	0.0336	0.033	%	101	80.0	- 120	Acceptable	
CBDV	2	0.0352	0.033	%	106	80.0	- 120	Acceptable	
CBE	2	0.0331	0.033	%	99.4	80.0	- 120	Acceptable	
CBDA	1	0.0345	0.033	%	104	90.0	- 110	Acceptable	
CBGA	1	0.0334	0.033	%	101	80.0	- 120	Acceptable	
CBG	1	0.0370	0.036	%	103	80.0	- 120	Acceptable	
CBD	1	0.0371	0.036	%	103	90.0	- 110	Acceptable	
THCV	2	0.0345	0.033	%	103	80.0	- 120	Acceptable	
d8THCV	2	0.0355	0.033	%	106	80.0	- 120	Acceptable	
THCVA	2	0.0329	0.033	%	98.8	80.0	- 120	Acceptable	
CBN	1	0.0370	0.036	%	102	90.0	- 110	Acceptable	
exo-THC	2	0.0333	0.033	%	99.9	80.0	- 120	Acceptable	
d9THC	1	0.0385	0.039	%	99.9	90.0	- 110	Acceptable	
d8THC	1	0.0353	0.033	%	106	80.0	- 120	Acceptable	
CBL	2	0.0335	0.033	%	101	80.0	- 120	Acceptable	
9S-HHC	3	0.0310	0.033	%	93.0	80.0	- 120	Acceptable	
d10THC	1	0.0316	0.033	%	94.8	80.0	- 120	Acceptable	
CBc	2	0.0340	0.033	%	102	80.0	- 120	Acceptable	
9R-HHC	3	0.0288	0.033	%	86.5	80.0	- 120	Acceptable	
THCA	1	0.0322	0.032	%	101	90.0	- 110	Acceptable	
CBCA	2	0.0343	0.033	%	103	80.0	- 120	Acceptable	
CBLA	2	0.0350	0.033	%	105	80.0	- 120	Acceptable	
d8THCO	3	0.0329	0.033	%	98.8	80.0	- 120	Acceptable	
CBT	2	0.0340	0.033	%	102	80.0	- 120	Acceptable	
d9THCO	3	0.0337	0.033	%	101	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	
9S-HHC	<LOQ	0.003	%	< 0.003	Acceptable	
d10THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBc	<LOQ	0.003	%	< 0.003	Acceptable	
9R-HHC	<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	
d8THCO	<LOQ	0.003	%	< 0.003	Acceptable	
CBT	<LOQ	0.003	%	< 0.003	Acceptable	
d9THCO	<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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Report Number: 22-011150/D003.R000
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Laboratory Quality Control Results

JAOAC2015 V98-6		Batch ID: 2207914						
Sample Duplicate		Sample ID: 22-011150-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	0.0037	0.0036	0.003	%	3.11	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDGA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBD	0.706	0.706	0.003	%	0.119	< 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	0.0040	0.0040	0.003	%	0.0081	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
9S-HHC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CB	0.0054	0.0054	0.003	%	1.28	< 20	Acceptable	
9R-HHC	<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	
d8THCO	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBT	0.0083	0.0082	0.003	%	0.352	< 20	Acceptable	
d9THCO	<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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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2208084					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		424	572	µg/g	74.1	60 - 120	
Isobutane	ND	< 200		544	731	µg/g	74.4	60 - 120	
Butane	ND	< 200		533	731	µg/g	72.9	60 - 120	
2,2-Dimethylpropane	ND	< 200		691	936	µg/g	73.8	60 - 120	
Methanol	ND	< 200		1310	1650	µg/g	79.4	60 - 120	
Ethylene Oxide	ND	< 30		39.7	56.2	µg/g	70.6	60 - 120	
2-Methylbutane	ND	< 200		1330	1650	µg/g	80.6	60 - 120	
Pentane	ND	< 200		1350	1650	µg/g	81.8	60 - 120	
Ethanol	ND	< 200		1320	1660	µg/g	79.5	70 - 130	
Ethyl Ether	ND	< 200		1320	1630	µg/g	81.0	60 - 120	
2,2-Dimethylbutane	ND	< 30		154	189	µg/g	81.5	60 - 120	
Acetone	ND	< 200		1320	1650	µg/g	80.0	60 - 120	
2-Propanol	ND	< 200		1320	1650	µg/g	80.0	60 - 120	
Ethyl Formate	ND	< 500		1150	1610	µg/g	71.4	70 - 130	
Acetonitrile	ND	< 100		377	504	µg/g	74.8	60 - 120	
Methyl Acetate	ND	< 500		1300	1630	µg/g	79.8	70 - 130	
2,3-Dimethylbutane	ND	< 30		119	174	µg/g	68.4	60 - 120	
Dichloromethane	ND	< 60		422	521	µg/g	81.0	60 - 120	
2-Methylpentane	ND	< 30		163	187	µg/g	87.2	60 - 120	
MTBE	ND	< 500		1280	1600	µg/g	80.0	70 - 130	
3-Methylpentane	ND	< 30		158	188	µg/g	84.0	60 - 120	
Hexane	ND	< 30		153	182	µg/g	84.1	60 - 120	
1-Propanol	ND	< 500		1190	1610	µg/g	73.9	70 - 130	
Methylethylketone	ND	< 500		1220	1600	µg/g	76.3	70 - 130	
Ethyl acetate	ND	< 200		1290	1630	µg/g	79.1	60 - 120	
2-Butanol	ND	< 200		1290	1630	µg/g	79.1	60 - 120	
Tetrahydrofuran	ND	< 100		405	506	µg/g	80.0	60 - 120	
Cyclohexane	ND	< 200		1300	1640	µg/g	79.3	60 - 120	
2-methyl-1-propanol	ND	< 500		1220	1620	µg/g	75.3	70 - 130	
Benzene	ND	< 1		3.66	4.93	µg/g	74.2	60 - 120	
Isopropyl Acetate	ND	< 200		1260	1640	µg/g	76.8	60 - 120	
Heptane	ND	< 200		1270	1630	µg/g	77.9	60 - 120	
1-Butanol	ND	< 500		1290	1600	µg/g	80.6	70 - 130	
Propyl Acetate	ND	< 500		1160	1620	µg/g	71.6	70 - 130	
1,4-Dioxane	ND	< 100		364	493	µg/g	73.8	60 - 120	
2-Ethoxyethanol	ND	< 30		140	171	µg/g	81.9	60 - 120	
Methylisobutylketone	ND	< 500		1210	1620	µg/g	74.7	70 - 130	
3-Methyl-1-butanol	ND	< 500		1330	1610	µg/g	82.6	70 - 130	
Ethylene Glycol	ND	< 200		301	494	µg/g	60.9	60 - 120	
Toluene	ND	< 100		373	506	µg/g	73.7	60 - 120	
Isobutyl Acetate	ND	< 500		1190	1620	µg/g	73.5	70 - 130	
1-Pentanol	ND	< 500		1430	1610	µg/g	88.8	70 - 130	
Butyl Acetate	ND	< 500		1240	1610	µg/g	77.0	70 - 130	
Ethylbenzene	ND	< 200		788	996	µg/g	79.1	60 - 120	
m,p-Xylene	ND	< 200		813	1010	µg/g	80.5	60 - 120	
o-Xylene	ND	< 200		806	979	µg/g	82.3	60 - 120	
Cumene	ND	< 30		163	188	µg/g	86.7	60 - 120	
Anisole	ND	< 500		1380	1610	µg/g	85.7	70 - 130	
DMSO	ND	< 500		1120	1600	µg/g	70.0	70 - 130	
1,2-dimethoxyethane	ND	< 50		142	190	µg/g	74.7	70 - 130	
Triethylamine	ND	< 500		1260	1610	µg/g	78.3	70 - 130	
N,N-dimethylformamide	ND	< 150		417	496	µg/g	84.1	70 - 130	
N,N-dimethylacetamide	ND	< 150		409	483	µg/g	84.7	70 - 130	
Pyridine	ND	< 50		111	167	µg/g	66.5	70 - 130	Q6
1,2-Dichloroethane	ND	< 1		0.647	1	µg/g	64.7	70 - 130	Q6
Chloroform	ND	< 1		0.719	1	µg/g	71.9	70 - 130	
Trichloroethylene	ND	< 1		0.703	1	µg/g	70.3	70 - 130	



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QC - Sample Duplicate			Sample ID: 22-011133-0001					
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	815	844	200	µg/g	3.5	< 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	
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
Q6 - Quality control outside QC limits. Data acceptable based on remaining QC.

Units of Measure:

µg/g - Microgram per gram or ppm



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



Report Number: 22-011150/D003.R000
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Report Number: 22-011150/D003.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.