



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



Report Number: 24-010157/D001.R000
Report Date: 09/18/2024
ORELAP#: OR100028
Purchase Order:
Received: 09/11/24 12:28

Customer: NW Natural Goods
Product identity: HEMP - HB 0113
Client/Metric ID: .
Laboratory ID: 24-010157-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.179		mg/4g		CBD-Total per Serving Size 24.2 mg/4g
CBD per 4g	24.2		mg/4g		
CBG per 4g	0.568		mg/4g		Delta-9-THC-Total per <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: HEMP - HB 0113
Client/Metric ID: .
Sample Date:
Laboratory ID: 24-010157-0001
Evidence of Cooling: No
Temp: 20.4
Relinquished by: BR
Serving Size #1: 4 g

Sample Results

Potency per 4g		Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se Batch: 2407068		Analyze: 9/13/24 9:30:00 AM
Analyte	Result	Limits	Units	LOQ	Notes	
CBC per 4g	0.179		mg/4g	0.125		
CBC-A per 4g	< LOQ		mg/4g	0.125		
CBC-Total per 4g	< LOQ		mg/4g	0.235		
CBD per 4g	24.2		mg/4g	0.125		
CBD-A per 4g ¹	< LOQ		mg/4g	0.125		
CBD-Total per 4g ¹	24.2		mg/4g	0.235		
CBDV per 4g	< LOQ		mg/4g	0.125		
CBDV-A per 4g	< LOQ		mg/4g	0.125		
CBDV-Total per 4g	< LOQ		mg/4g	0.234		
CBE per 4g	< LOQ		mg/4g	0.125		
CBG per 4g	0.568		mg/4g	0.125		
CBG-A per 4g	< LOQ		mg/4g	0.125		
CBG-Total per 4g	0.568		mg/4g	0.234		
CBL per 4g	< LOQ		mg/4g	0.125		
CBL-A per 4g	< LOQ		mg/4g	0.125		
CBL-Total per 4g	< LOQ		mg/4g	0.235		
CBN per 4g	< LOQ		mg/4g	0.125		
CBT per 4g	< LOQ		mg/4g	0.125		
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.125		
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.125		
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.251		
Δ8-THC per 4g ¹	< LOQ		mg/4g	0.125		
Δ8-THCV per 4g	< LOQ		mg/4g	0.125		
Δ9-THC per 4g ¹	< LOQ		mg/4g	0.125		
Δ9-THC-Total per 4g	< LOQ		mg/4g	0.235		
Δ9-THCP per 4g	< LOQ		mg/4g	0.125		
Δ9-THCV per 4g	< LOQ		mg/4g	0.125		
Δ9-THCV-A per 4g	< LOQ		mg/4g	0.125		
Δ9-THCV-Total per 4g	< LOQ		mg/4g	0.236		
exo-THC per 4g	< LOQ		mg/4g	0.125		
THC-A per 4g ¹	< LOQ		mg/4g	0.125		
Total Cannabinoids per 4g	24.9		mg/4g			


Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2407004	09/14/24 AOAC 991.14 (Petrifilm)		
Total Coliforms	< LOQ		cfu/g	10	2407004	09/14/24 AOAC 991.14 (Petrifilm)		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2407007	09/15/24 AOAC 2014.05 (RAPID)		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2407007	09/15/24 AOAC 2014.05 (RAPID)		

Solvents Method: Residual Solvents by HS-GC-MS^b Units µg/g Batch 2407067 Analyze 09/13/24 01:01 PM

Analyte	Result	Limits	LOQ	Status	Notes	Analyte	Result	Limits	LOQ	Status	Notes
1,4-Dioxane ¹	< LOQ	380	100	pass		2-Butanol ¹	< LOQ	5000	200	pass	
2-Ethoxyethanol ¹	< LOQ	160	30.0	pass		2-Methylbutane (Isopentane) ¹	< LOQ		200		
2-Methylpentane ¹	< LOQ		30.0			2-Propanol (IPA) ¹	< LOQ	5000	200	pass	
2,2-Dimethylbutane ¹	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane) ¹	< LOQ		200		
2,3-Dimethylbutane ¹	< LOQ		30.0			3-Methylpentane ¹	< LOQ		30.0		
Acetone ¹	< LOQ	5000	200	pass		Acetonitrile ¹	< LOQ	410	100	pass	
Benzene ¹	< LOQ	2.00	1.00	pass		Butanes (sum) ¹	< LOQ	5000	400	pass	
Cyclohexane ¹	< LOQ	3880	200	pass		Ethyl acetate ¹	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether ¹	< LOQ	5000	200	pass	
Ethylene glycol ¹	< LOQ	620	200	pass		Ethylene oxide ¹	< LOQ	50.0	20.0	pass	
Hexanes (sum) ¹	< LOQ	290	150	pass		Isopropyl acetate ¹	< LOQ	5000	200	pass	
Isopropylbenzene (Cumene) ¹	< LOQ	70.0	30.0	pass		m,p-Xylene ¹	< LOQ		200		
Methanol ¹	< LOQ	3000	200	pass		Methylene chloride ¹	< LOQ	600	60.0	pass	
Methylpropane (Isobutane) ¹	< LOQ		200			n-Butane ¹	< LOQ		200		
n-Heptane ¹	< LOQ	5000	200	pass		n-Hexane ¹	< LOQ		30.0		
n-Pentane ¹	< LOQ		200			o-Xylene ¹	< LOQ		200		
Pentanes (sum)	< LOQ	5000	600	pass		Propane	< LOQ	5000	200	pass	
Tetrahydrofuran ¹	< LOQ	720	100	pass		Toluene ¹	< LOQ	890	100	pass	
Total Xylenes ¹	< LOQ		400			Total Xylenes and Ethyl benzene	< LOQ	2170	600	pass	

Pesticides Method: AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2407129 Analyze 09/16/24 03:28 PM

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 ^L	< LOQ	0.200	mg/kg	0.0184	2407078	09/13/24 AOAC 2013.06 (mod.) ^P	pass	
Cadmium ^L	< LOQ	0.200	mg/kg	0.0184	2407078	09/13/24 AOAC 2013.06 (mod.) ^P	pass	
Lead ^L	< LOQ	0.500	mg/kg	0.0195	2407210	09/18/24 AOAC 2013.06 (mod.) ^P	pass	
Mercury ^L	< LOQ	0.100	mg/kg	0.00920	2407078	09/13/24 AOAC 2013.06 (mod.) ^P	pass	

Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	19.9		g/100g	0.10	2407039	09/12/24 AOAC 925.10 (mod.)		
Water Activity	0.719		Aw	0.030	2407100	09/13/24 AOAC 978.18		



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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 = Gram

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

A_w = Water Activity

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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Hemp & Cannabis
 Chain of Custody

Northwest-Natural-
 Goods-1726004693

Company Details Company: <u>Northwest Natural Goods</u> [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted]	Project Details Turnaround Time: <u>5 Business Days</u> Req. For Micro Testing <u>Standard</u> Relinquishment Sampling, Courier & Shipping Options: <u>Pick-Up Courier Service</u> Project Name / ID: <u>HEMP - HB 01B</u> Cannabis Type (select if applicable): <u>Industrial</u> Pick-Up Details Pick-Up Location Name: <u>Northwest Natural Goods</u> [Redacted] [Redacted] [Redacted]				Testing						
	Receipt Information Prelog Storage: <u>Canna Shelves</u> Sample Condition: <u>Satisfactory</u>				N3600 - Water Activity & Moisture (as Loss on Drying) Food	H0008 - Residual Solvents (Cannabis - Oregon)	H0010 - Potency Cannabis (Basic+Expanded)	P2320 - Multi-Residue Pesticide Profile (Cannabis)	M075 - E. coli/Coliform Count (EC) Petri Im	H0013 - Cannabis Heavy Metals Profile CR	M283 - RAPID Yeast and Mold Count (RYM) Petri Im
#	Sample Name	Material	Amount Provided	Reporting Unit	Serving Size						
1	HEMP - HB 01B	Cannabinoid Edible	20 each	mg/g & mg/serving	4g	✓	✓	✓	✓	✓	✓

Relinquished By	Date	Time	Temp., °C	Received By	Date	Time	Received Temp., °C	Evidence of Cooling?
<i>KRISTEN JOHNSON</i>	<i>09/10/2024</i>	<i>14:44</i>		<i>BR</i>	<i>09/11/2024</i>	<i>10:26</i>	<i>25</i>	<i>No</i>
<i>BR</i>	<i>09/11/2024</i>	<i>10:52</i>	<i>20.4</i>	<i>jmk</i>	<i>09/11/2024</i>	<i>12:28</i>	<i>25</i>	<i>No</i>

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the [current terms of services](#) associated with this COC. By signing "Relinquished by" you are agreeing to these terms.

Columbia Laboratories
 12423 NE Whitaker Way
 Portland, OR 97230

P: (503) 254-1794
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 Testing in accordance with: OAR 333-007-0390 OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430



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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
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
Dichlorfenthion	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
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
Fluopicolide	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
Isofenphos	0.1
Isofenphos-methyl	0.1
Isofenphos-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
Mecabam	0.1
Mepanipirim	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
Molinate	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
Paclbutrazol	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
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
Sulfoxafflor	0.1
Sulprofos	0.1
Tebuconazole	0.1
Tebufenozide	0.1
Terbufos	0.1
Terbuthylazine	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)

Test results relate only to the parameters tested and to the samples as received by the laboratory. Test results meet all requirements of NELAP and the Columbia Laboratories quality assurance plan unless otherwise noted. This report shall not be reproduced, except in full, without the written consent of this laboratory. Samples will be retained for a maximum of 30 days from the receipt date unless prior arrangements have been made.

Testing in accordance with: OAR 333-007-0390 OAR 333-007-0400 OAR 333-007-0410 OAR 333-007-0430


Laboratory Quality Control Results

Residual Solvents				Batch ID: 2407067			
Method Blank				Laboratory Control Sample			
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec. Limits Notes
Propane	ND	< 200		663	585	µg/g	113.3 60 - 120
Isobutane	ND	< 200		819	770	µg/g	106.4 60 - 120
Butane	ND	< 200		848	769	µg/g	110.3 60 - 120
2,2-Dimethylpropane	ND	< 200		1090	956	µg/g	114.0 60 - 120
Methanol	ND	< 200		1760	1630	µg/g	108.0 60 - 120
Ethylene Oxide	ND	< 30		61.5	57.7	µg/g	106.6 60 - 120
2-Methylbutane	ND	< 200		1670	1620	µg/g	103.1 60 - 120
Pertane	ND	< 200		1640	1620	µg/g	101.2 60 - 120
Ethanol	ND	< 200		2250	1620	µg/g	138.9 70 - 130 Q1
Ethyl Ether	ND	< 200		1820	1620	µg/g	112.3 60 - 120
2,2-Dimethylbutane	ND	< 30		192	179	µg/g	107.3 60 - 120
Acetone	ND	< 200		1730	1620	µg/g	106.8 60 - 120
2-Propanol	ND	< 200		1710	1620	µg/g	105.6 60 - 120
Ethyl Formate	ND	< 500		1650	1610	µg/g	102.5 70 - 130
Acetonitrile	ND	< 100		533	502	µg/g	106.2 60 - 120
Methyl Acetate	ND	< 500		1910	1610	µg/g	118.6 70 - 130
2,3-Dimethylbutane	ND	< 30		184	180	µg/g	102.2 60 - 120
Dichloromethane	ND	< 60		539	533	µg/g	101.1 60 - 120
2-Methylpentane	ND	< 30		182	181	µg/g	100.6 60 - 120
MTBE	ND	< 500		1890	1600	µg/g	118.1 70 - 130
3-Methylpentane	ND	< 30		185	177	µg/g	104.5 60 - 120
Hexane	ND	< 30		185	182	µg/g	101.6 60 - 120
1-Propanol	ND	< 500		1970	1610	µg/g	122.4 70 - 130
Methylethylketone	ND	< 500		1920	1600	µg/g	120.0 70 - 130
Ethyl acetate	ND	< 200		1730	1620	µg/g	106.8 60 - 120
2-Butanol	ND	< 200		1720	1630	µg/g	105.5 60 - 120
Tetrahydrofuran	ND	< 100		501	499	µg/g	100.4 60 - 120
Cyclohexane	ND	< 200		1580	1610	µg/g	98.1 60 - 120
2-methyl-1-propanol	ND	< 500		1860	1600	µg/g	116.3 70 - 130
Benzene	ND	< 1		4.98	5.01	µg/g	99.4 60 - 120
Isopropyl Acetate	ND	< 200		1680	1620	µg/g	103.7 60 - 120
Heptane	ND	< 200		1610	1610	µg/g	100.0 60 - 120
1-Butanol	ND	< 500		1800	1600	µg/g	112.5 70 - 130
Propyl Acetate	ND	< 500		1790	1600	µg/g	111.9 70 - 130
1,4-Dioxane	ND	< 100		487	493	µg/g	98.8 60 - 120
2-Ethoxyethanol	ND	< 30		182	182	µg/g	100.0 60 - 120
Methylisobutylketone	ND	< 500		1760	1610	µg/g	109.3 70 - 130
3-Methyl-1-butanol	ND	< 500		1770	1600	µg/g	110.6 70 - 130
Ethylene Glycol	ND	< 200		445	501	µg/g	88.8 60 - 120
Toluene	ND	< 100		490	501	µg/g	97.8 60 - 120
Isobutyl Acetate	ND	< 500		1850	1600	µg/g	115.6 70 - 130
1-Pentanol	ND	< 500		2000	1600	µg/g	125.0 70 - 130
Butyl Acetate	ND	< 500		1850	1600	µg/g	115.6 70 - 130
Ethylbenzene	ND	< 200		975	981	µg/g	99.4 60 - 120
m,p-Xylene	ND	< 200		989	1000	µg/g	98.9 60 - 120
o-Xylene	ND	< 200		931	981	µg/g	94.9 60 - 120
Cumene	ND	< 30		161	177	µg/g	91.0 60 - 120
Anisole	ND	< 500		1490	1610	µg/g	92.5 70 - 130
DMSO	ND	< 500		1500	1600	µg/g	93.8 70 - 130
1,2-dimethoxyethane	ND	< 50		183	161	µg/g	113.7 70 - 130
Triethylamine	ND	< 500		1760	1600	µg/g	110.0 70 - 130
N,N-dimethylformamide	ND	< 150		584	484	µg/g	120.7 70 - 130
N,N-dimethylacetamide	ND	< 150		464	497	µg/g	93.4 70 - 130
Pyridine	ND	< 50		194	162	µg/g	119.8 70 - 130
Sulfolane	ND	< 50		136	166	µg/g	81.9 70 - 130
1,2-Dichloroethane	ND	< 1		1.01	1	µg/g	101.0 70 - 130
Chloroform	ND	< 1		1.02	1	µg/g	102.0 70 - 130
Trichloroethylene	ND	< 1		0.978	1	µg/g	97.8 70 - 130
1,1-Dichloroethane	ND	< 1		1.04	1	µg/g	104.0 70 - 130



QC- Sample Duplicate

Sample ID: 24-009963-0001

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	
Pertane	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	
Sulfone	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: 24-010157/D001.R000
Report Date: 09/18/2024
ORELAP#: OR100028
Purchase Order:
Received: 09/11/24 12:28

Revision: 4 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2407068

Laboratory Control Sample										
Analyte	LCS	Result	Spike	Units	% Rec	Limits		Evaluation	Notes	
CBDVA	2	0.0321	0.0316	%	102	80.0	- 120	Acceptable		
CBDV	2	0.0345	0.0343	%	101	80.0	- 120	Acceptable		
CBE	2	0.0321	0.0327	%	98.4	80.0	- 120	Acceptable		
CBDA	1	0.0336	0.0352	%	95.5	90.0	- 110	Acceptable		
CBGA	1	0.0337	0.0345	%	97.7	80.0	- 120	Acceptable		
CBG	1	0.0303	0.0309	%	98.1	80.0	- 120	Acceptable		
CBD	1	0.0329	0.0345	%	95.2	90.0	- 110	Acceptable		
THCV	2	0.0342	0.0351	%	97.4	80.0	- 120	Acceptable		
d8THCV	2	0.0349	0.0346	%	101	80.0	- 120	Acceptable		
THCVA	2	0.0317	0.0314	%	101	80.0	- 120	Acceptable		
CBN	1	0.0334	0.0346	%	96.5	80.0	- 120	Acceptable		
exo-THC	2	0.0290	0.0296	%	98.1	80.0	- 120	Acceptable		
d9THC	1	0.0314	0.0332	%	94.8	90.0	- 110	Acceptable		
d8THC	1	0.0261	0.0279	%	93.4	90.0	- 110	Acceptable		
9S-d10THC	1	0.0331	0.0348	%	95.0	80.0	- 120	Acceptable		
CBL	2	0.0291	0.0342	%	85.1	80.0	- 120	Acceptable		
9R-d10THC	1	0.0334	0.0359	%	92.9	80.0	- 120	Acceptable		
CBC	2	0.0316	0.0316	%	100	80.0	- 120	Acceptable		
THCA	1	0.0349	0.0353	%	98.8	90.0	- 110	Acceptable		
CBCA	2	0.0317	0.0320	%	99.1	80.0	- 120	Acceptable		
CBLA	2	0.0305	0.0312	%	97.8	80.0	- 120	Acceptable		
d9THCP	2	0.0306	0.0322	%	95.0	80.0	- 120	Acceptable		
CBT	2	0.0304	0.0342	%	88.9	80.0	- 120	Acceptable		

Method Blank							
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes	
CBDVA	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBDV	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBE	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBDA	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBGA	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBG	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBD	<LOQ	0.00318	%	< 0.00318	Acceptable		
THCV	<LOQ	0.00318	%	< 0.00318	Acceptable		
d8THCV	<LOQ	0.00318	%	< 0.00318	Acceptable		
THCVA	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBN	<LOQ	0.00318	%	< 0.00318	Acceptable		
exo-THC	<LOQ	0.00318	%	< 0.00318	Acceptable		
d9THC	<LOQ	0.00318	%	< 0.00318	Acceptable		
d8THC	<LOQ	0.00318	%	< 0.00318	Acceptable		
9S-d10THC	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBL	<LOQ	0.00318	%	< 0.00318	Acceptable		
9R-d10THC	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBC	<LOQ	0.00318	%	< 0.00318	Acceptable		
THCA	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBCA	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBLA	<LOQ	0.00318	%	< 0.00318	Acceptable		
d9THCP	<LOQ	0.00318	%	< 0.00318	Acceptable		
CBT	<LOQ	0.00318	%	< 0.00318	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

AOAC 2015 V98-6		Batch ID: 2407068						
Sample Duplicate		Sample ID: 24-010016-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBG	0.0146	0.0145	0.00328	%	0.719	< 20	Acceptable	
CBD	0.615	0.614	0.00328	%	0.158	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBC	0.00456	0.00451	0.00328	%	1.03	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00328	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00328	%	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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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.