



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



Report Number: 24-005864/D004.R000
Report Date: 06/05/2024
ORELAP#: OR100028
Purchase Order:
Received: 05/29/24 12:06

Customer: NW Natural Goods
Product identity: HEMP - PR 0081
Client/Metric ID: .
Laboratory ID: 24-005864-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.144		mg/4g		CBD-Total per Serving Size 19.5 mg/4g
CBD per 4g	19.5		mg/4g		
CBG per 4g	10.6		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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 Portland, OR 97230
 503-254-1794



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Received: 05/29/24 12:06

Customer: NW Natural Goods

Product identity: HEMP - PR 0081
Client/Metric ID: .
Sample Date:
Laboratory ID: 24-005864-0001
Evidence of Cooling: No
Temp: 17.7 °C
Serving Size #1: 4 g

Sample Results

Potency per 4g	Method: J AOAC 2015 V98-6 (mod) ^b	Units mg/se	Batch: 2404262	Analyze: 6/4/24 2:54:00 PM	
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	0.144		mg/4g	0.123	
CBC-A per 4g	< LOQ		mg/4g	0.123	
CBC-Total per 4g	< LOQ		mg/4g	0.231	
CBD per 4g	19.5		mg/4g	0.123	
CBD-A per 4g ¹	< LOQ		mg/4g	0.123	
CBD-Total per 4g ¹	19.5		mg/4g	0.231	
CBDV per 4g	< LOQ		mg/4g	0.123	
CBDV-A per 4g	< LOQ		mg/4g	0.123	
CBDV-Total per 4g	< LOQ		mg/4g	0.230	
CBE per 4g	< LOQ		mg/4g	0.123	
CBG per 4g	10.6		mg/4g	0.123	
CBG-A per 4g	< LOQ		mg/4g	0.123	
CBG-Total per 4g	10.6		mg/4g	0.230	
CBL per 4g	< LOQ		mg/4g	0.123	
CBL-A per 4g	< LOQ		mg/4g	0.123	
CBL-Total per 4g	< LOQ		mg/4g	0.231	
CBN per 4g	< LOQ		mg/4g	0.123	
CBT per 4g	< LOQ		mg/4g	0.123	
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.123	
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.123	
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.246	
Δ8-THC per 4g ¹	< LOQ		mg/4g	0.123	
Δ8-THCV per 4g	< LOQ		mg/4g	0.123	
Δ9-THC per 4g ¹	< LOQ		mg/4g	0.123	
Δ9-THC-Total per 4g	< LOQ		mg/4g	0.231	
Δ9-THCP per 4g	< LOQ		mg/4g	0.123	
Δ9-THCV per 4g	< LOQ		mg/4g	0.123	
Δ9-THCV-A per 4g	< LOQ		mg/4g	0.123	
Δ9-THCV-Total per 4g	< LOQ		mg/4g	0.231	
exo-THC per 4g	< LOQ		mg/4g	0.123	
THC-A per 4g ¹	< LOQ		mg/4g	0.123	
Total Cannabinoids per 4g	30.2		mg/4g		



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2404118	06/01/24 AOAC 991.14 (Petrifilm)		
Total Coliforms	< LOQ		cfu/g	10	2404118	06/01/24 AOAC 991.14 (Petrifilm)		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2404119	06/02/24 AOAC 2014.05 (RAPID)		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2404119	06/02/24 AOAC 2014.05 (RAPID)		

Solvents Method: Residual Solvents by HS-GC-MS^b Units µg/g Batch 2404215 Analyze 06/03/24 11:49 AM

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 ¹	< 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 2404237 Analyze 06/04/24 09:04 AM

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 ¹	< LOQ	0.200	mg/kg	0.0197	2404221	06/03/24 AOAC 2013.06 (mod.) ^b	pass	
Cadmium ¹	< LOQ	0.200	mg/kg	0.0197	2404221	06/03/24 AOAC 2013.06 (mod.) ^b	pass	
Lead ¹	< LOQ	0.500	mg/kg	0.0197	2404221	06/03/24 AOAC 2013.06 (mod.) ^b	pass	
Mercury ¹	< LOQ	0.100	mg/kg	0.00983	2404221	06/03/24 AOAC 2013.06 (mod.) ^b	pass	



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Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	18.2		g/100g	0.10	2404157	05/30/24 AOAC 925.10 (mod.)		
Water Activity	0.648		Aw	0.030	2404220	06/03/24 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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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
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
Diffubenzuron	0.1
Diffufenzopyr	0.1
Dimethenamid	0.1
Dimethoat	0.1
Dimethomorph	0.1
Dinoseb	0.1
Dinotefuran	0.1
Dioxathion	0.1
Diphenamid	0.1
Diphenylamine (DPA)	0.1
Disulfoton	0.1
Disulfoton-sulfone	0.1
Disulfoton-Sulfoxide	0.1
Diuron	0.1
DNOC	0.1
Edifenphos	0.1
Endosulfan (alpha isomer)	0.1
Endosulfan (beta isomer)	0.1
Endosulfan-sulfate	0.1
Endrin	0.1
EPN	0.1
EPTC	0.1
Esfenvalerate/Fenvalerate	0.1
Ethiofencarb	0.1
Ethion	0.1
Ethofumesate	0.1
Ethoprophos	0.1
Etofenprox	0.1
Etoxazole	0.1
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)



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
Pyroxulam	0.1
Quinalphos	0.1
Quinclorac	0.1
Quinoxifen	0.1
Quintozene(PCNB)	0.2
Quizalofop	0.1
Resmethrin	0.1
Rotenone	0.1
Saflufenacil	0.1

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



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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



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Hemp & Cannabis
Chain of Custody

NW-Natural-Goods-
1716938106

ORELAP ID: OR1000028 ANAB ISO 17025 ID: AT1508

					Testing												
					H0008 - Residual Solvents (Cannabis - Oregon)	H0013 - Cannabis Heavy Metals Profile CR	H0010 - Potency Cannabis (Basic-Expanded)	N3600 - Water Activity & Moisture (as Loss on Dry/ing) Food	M075 - E. coli/Coliform Count (EC) Petri Im	M283 - RAPID Yeast and Mold Count (RYM) Petri Im	P2330 - Multi-Residue Pesticide Profile (Cannabis)						
Company Details Company: <u>NW Natural Goods</u> [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted]					Project Details Turnaround Time: <u>5 Business Days Req. For Micro Testing Standard</u> Relinquishment Sampling, Courier & Shipping Options: <u>Pick-Up Courier Service</u> Compliance: <u>Compliance</u> Project Name / ID: <u>HEMP - PR0081</u> Cannabis Type (select if applicable): <u>Industrial</u> Pick-Up Details Pick-Up Location Name: <u>NW Natural Goods</u> [Redacted] [Redacted] [Redacted]					Receipt Information Pre-Log Storage: <u>Canna Shelves</u> Sample Condition: <u>Satisfactory</u>							
#	Sample Name	Material	Amount Provided	Reporting Unit	Serving Size	✓	✓	✓	✓	✓	✓	✓					
1	HEMP - PR0081	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>Todd Norberg</i>	<i>05/23/2024</i>	<i>16:14</i>		<i>BR</i>	<i>05/29/2024</i>	<i>10:04</i>	<i>25</i>	<i>No</i>
<i>BR</i>	<i>05/29/2024</i>	<i>11:23</i>	<i>17.7</i>	<i>det</i>	<i>05/29/2024</i>	<i>12:06</i>	<i>17.7</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
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info@columbialaboratories.com

Page 1 of 1
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Received: 05/29/24 12:06

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

Laboratory Quality Control Results

Residual Solvents				Batch ID: 2404215					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		549	584	µg/g	94.0	60 - 120	
Isobutane	ND	< 200		869	767	µg/g	113.3	60 - 120	
Butane	ND	< 200		880	782	µg/g	112.5	60 - 120	
2,2-Dimethylpropane	ND	< 200		851	939	µg/g	90.6	60 - 120	
Methanol	ND	< 200		1810	1600	µg/g	113.1	60 - 120	
Ethylene Oxide	ND	< 30		63.7	57.1	µg/g	111.6	60 - 120	
2-Methylbutane	ND	< 200		1450	1600	µg/g	90.6	60 - 120	
Pentane	ND	< 200		1460	1610	µg/g	90.7	60 - 120	
Ethanol	ND	< 200		1440	1600	µg/g	90.0	70 - 130	
Ethyl Ether	ND	< 200		1420	1600	µg/g	88.8	60 - 120	
2,2-Dimethylbutane	ND	< 30		144	162	µg/g	88.9	60 - 120	
Acetone	ND	< 200		1420	1600	µg/g	88.8	60 - 120	
2-Propanol	ND	< 200		1430	1600	µg/g	89.4	60 - 120	
Ethyl Formate	ND	< 500		1690	1630	µg/g	103.7	70 - 130	
Acetonitrile	ND	< 100		547	487	µg/g	112.3	60 - 120	
Methyl Acetate	ND	< 500		1840	1610	µg/g	114.3	70 - 130	
2,3-Dimethylbutane	ND	< 30		174	161	µg/g	108.1	60 - 120	
Dichloromethane	ND	< 60		522	483	µg/g	108.1	60 - 120	
2-Methylpentane	ND	< 30		190	164	µg/g	115.9	60 - 120	
MTBE	ND	< 500		1760	1610	µg/g	109.3	70 - 130	
3-Methylpentane	ND	< 30		161	160	µg/g	100.6	60 - 120	
Hexane	ND	< 30		171	171	µg/g	100.0	60 - 120	
1-Propanol	ND	< 500		1550	1610	µg/g	96.3	70 - 130	
Methylethylketone	ND	< 500		1520	1610	µg/g	94.4	70 - 130	
Ethyl acetate	ND	< 200		1520	1620	µg/g	93.8	60 - 120	
2-Butanol	ND	< 200		1430	1600	µg/g	89.4	60 - 120	
Tetrahydrofuran	ND	< 100		396	481	µg/g	82.3	60 - 120	
Cyclohexane	ND	< 200		1140	1610	µg/g	70.8	60 - 120	
2-methyl-1-propanol	ND	< 500		1550	1610	µg/g	96.3	70 - 130	
Benzene	ND	< 1		3.57	5.17	µg/g	69.1	60 - 120	
Isopropyl Acetate	ND	< 200		1100	1600	µg/g	68.8	60 - 120	
Heptane	ND	< 200		1170	1620	µg/g	72.2	60 - 120	
1-Butanol	ND	< 500		1560	1610	µg/g	96.9	70 - 130	
Propyl Acetate	ND	< 500		1590	1610	µg/g	98.8	70 - 130	
1,4-Dioxane	ND	< 100		405	497	µg/g	81.5	60 - 120	
2-Ethoxyethanol	ND	< 30		131	160	µg/g	81.9	60 - 120	
Methylisobutylketone	ND	< 500		1590	1620	µg/g	98.1	70 - 130	
3-Methyl-1-butanol	ND	< 500		1610	1610	µg/g	100.0	70 - 130	
Ethylene Glycol	ND	< 200		382	483	µg/g	79.1	60 - 120	
Toluene	ND	< 100		406	482	µg/g	84.2	60 - 120	
Isobutyl Acetate	ND	< 500		1610	1620	µg/g	99.4	70 - 130	
1-Pentanol	ND	< 500		1610	1610	µg/g	100.0	70 - 130	
Butyl Acetate	ND	< 500		1710	1650	µg/g	103.6	70 - 130	
Ethylbenzene	ND	< 200		782	970	µg/g	80.6	60 - 120	
m,p-Xylene	ND	< 200		778	963	µg/g	80.8	60 - 120	
o-Xylene	ND	< 200		720	961	µg/g	74.9	60 - 120	
Cumene	ND	< 30		115	164	µg/g	70.1	60 - 120	
Anisole	ND	< 500		1490	1610	µg/g	92.5	70 - 130	
DMSO	ND	< 500		1670	1610	µg/g	103.7	70 - 130	
1,2-dimethoxyethane	ND	< 50		163	170	µg/g	95.9	70 - 130	
Triethylamine	ND	< 500		1180	1620	µg/g	72.8	70 - 130	
N,N-dimethylformamide	ND	< 150		522	499	µg/g	104.6	70 - 130	
N,N-dimethylacetamide	ND	< 150		451	489	µg/g	92.2	70 - 130	
Pyridine	ND	< 50		158	167	µg/g	94.6	70 - 130	
Sulfolane	ND	< 50		157	169	µg/g	92.9	70 - 130	
1,2-Dichloroethane	ND	< 1		0.72	1	µg/g	72.0	70 - 130	
Chloroform	ND	< 1		0.808	1	µg/g	80.8	70 - 130	
Trichloroethylene	ND	< 1		0.625	1	µg/g	62.5	70 - 130	Q6
1,1-Dichloroethane	ND	< 1		1.04	1	µg/g	104.0	70 - 130	



12423 NE Whitaker Way
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Revision: 2 Document ID: 7087
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QC - Sample Duplicate

Sample ID: 24-005372-0001-02

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	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

Abbreviations

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

Units of Measure:

µg/g- Microgram per gram or ppm



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



Report Number: 24-005864/D004.R000
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Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2404262

Laboratory Control Sample										
Analyte	LCS	Result	Spike	Units	% Rec	Limits		Evaluation	Notes	
CBDVA	2	0.0292	0.0286	%	102	80.0	- 120	Acceptable		
CBDV	2	0.0331	0.0332	%	99.9	80.0	- 120	Acceptable		
CBE	2	0.0328	0.0326	%	101	80.0	- 120	Acceptable		
CBDA	1	0.0315	0.0309	%	102	90.0	- 110	Acceptable		
CBGA	1	0.0311	0.0306	%	102	80.0	- 120	Acceptable		
CBG	1	0.0302	0.0301	%	100	80.0	- 120	Acceptable		
CBD	1	0.0326	0.0326	%	100	90.0	- 110	Acceptable		
THCV	2	0.0336	0.0333	%	101	80.0	- 120	Acceptable		
d8THCV	2	0.0320	0.0322	%	99.5	80.0	- 120	Acceptable		
THCVA	2	0.0317	0.0311	%	102	80.0	- 120	Acceptable		
CBN	1	0.0309	0.0306	%	101	80.0	- 120	Acceptable		
exo-THC	2	0.0317	0.0322	%	98.6	80.0	- 120	Acceptable		
d9THC	1	0.0323	0.0324	%	99.6	90.0	- 110	Acceptable		
d8THC	1	0.0314	0.0317	%	99.0	90.0	- 110	Acceptable		
9S-d10THC	1	0.0312	0.0318	%	98.1	80.0	- 120	Acceptable		
CBL	2	0.0278	0.0290	%	95.8	80.0	- 120	Acceptable		
9R-d10THC	1	0.0301	0.0341	%	88.4	80.0	- 120	Acceptable		
CBC	2	0.0302	0.0311	%	97.3	80.0	- 120	Acceptable		
THCA	1	0.0321	0.0306	%	105	90.0	- 110	Acceptable		
CBCA	2	0.0321	0.0320	%	100	80.0	- 120	Acceptable		
CBLA	2	0.0327	0.0326	%	100	80.0	- 120	Acceptable		
d9THCP	2	0.0301	0.0317	%	94.9	80.0	- 120	Acceptable		
CBT	2	0.0294	0.0324	%	90.5	80.0	- 120	Acceptable		

Method Blank							
Analyte	Result	LOQ	Units	Limits	Evaluation	Notes	
CBDVA	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBDV	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBE	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBDA	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBGA	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBG	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBD	<LOQ	0.00322	%	< 0.00322	Acceptable		
THCV	<LOQ	0.00322	%	< 0.00322	Acceptable		
d8THCV	<LOQ	0.00322	%	< 0.00322	Acceptable		
THCVA	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBN	<LOQ	0.00322	%	< 0.00322	Acceptable		
exo-THC	<LOQ	0.00322	%	< 0.00322	Acceptable		
d9THC	<LOQ	0.00322	%	< 0.00322	Acceptable		
d8THC	<LOQ	0.00322	%	< 0.00322	Acceptable		
9S-d10THC	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBL	<LOQ	0.00322	%	< 0.00322	Acceptable		
9R-d10THC	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBC	<LOQ	0.00322	%	< 0.00322	Acceptable		
THCA	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBCA	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBLA	<LOQ	0.00322	%	< 0.00322	Acceptable		
d9THCP	<LOQ	0.00322	%	< 0.00322	Acceptable		
CBT	<LOQ	0.00322	%	< 0.00322	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: 2404262						
Sample Duplicate		Sample ID: 24-005839-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBG	0.253	0.254	0.00320	%	0.385	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBN	0.00540	0.00539	0.00320	%	0.119	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
d9THC	0.251	0.251	0.00320	%	0.111	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
9S-d10THC	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
9R-d10THC	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBC	0.253	0.253	0.00320	%	0.170	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00320	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00320	%	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.