



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



Report Number: 23-007835/D002.R000
Report Date: 07/10/2023
ORELAP#: OR100028
Purchase Order:
Received: 07/03/23 11:22

Customer: NW Natural Goods
Product identity: HEMP - EB 0085
Client/Metric ID: .
Laboratory ID: 23-007835-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	0.236		mg/4g		CBD-Total per Serving Size 27.6 mg/4g
CBD per 4g	27.6		mg/4g		
CBG per 4g	0.840		mg/4g		THC-Total per Serving Size <LOQ
CBN per 4g	5.04		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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Received: 07/03/23 11:22

Customer: NW Natural Goods

Product identity: HEMP - EB 0085

Client/Metric ID: .

Sample Date:

Laboratory ID: 23-007835-0001

Evidence of Cooling: No

Temp: 21.3

Relinquished by: hinton

Serving Size #1: 4 g

Sample Results

Potency per 4g					
Method: J AOAC 2015 V98-6 (mod) ^b					
Units mg/se Batch: 2308822 Analyze: 7/5/23 10:54:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 4g	0.236		mg/4g	0.122	
CBC-A per 4g	< LOQ		mg/4g	0.122	
CBC-Total per 4g	0.236		mg/4g	0.229	
CBD per 4g	27.6		mg/4g	0.122	
CBD-A per 4g	< LOQ		mg/4g	0.122	
CBD-Total per 4g	27.6		mg/4g	0.229	
CBDV per 4g	< LOQ		mg/4g	0.122	
CBDV-A per 4g	< LOQ		mg/4g	0.122	
CBDV-Total per 4g	< LOQ		mg/4g	0.228	
CBE per 4g	< LOQ		mg/4g	0.122	
CBG per 4g	0.840		mg/4g	0.122	
CBG-A per 4g	< LOQ		mg/4g	0.122	
CBG-Total per 4g	0.840		mg/4g	0.228	
CBL per 4g	< LOQ		mg/4g	0.122	
CBL-A per 4g	< LOQ		mg/4g	0.122	
CBL-Total per 4g	< LOQ		mg/4g	0.229	
CBN per 4g	5.04		mg/4g	0.122	
CBT per 4g	< LOQ		mg/4g	0.122	
Δ8-THCV per 4g	< LOQ		mg/4g	0.122	
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.122	
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.122	
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.244	
Δ8-THC per 4g	< LOQ		mg/4g	0.122	
Δ9-THC per 4g	< LOQ		mg/4g	0.122	
delta-9-THCP per 4g	< LOQ		mg/4g	0.122	
exo-THC per 4g	< LOQ		mg/4g	0.122	
THC-A per 4g	< LOQ		mg/4g	0.122	
THC-Total per 4g	< LOQ		mg/4g	0.229	
THCV per 4g	< LOQ		mg/4g	0.122	
THCV-A per 4g	< LOQ		mg/4g	0.122	
THCV-Total per 4g	< LOQ		mg/4g	0.229	
Total Cannabinoids per 4g	33.8		mg/4g		



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2308762	07/07/23 AOAC 991.14 (Petrifilm) ^P		
Total Coliforms	< LOQ		cfu/g	10	2308762	07/07/23 AOAC 991.14 (Petrifilm) ^P		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2308763	07/07/23 AOAC 2014.05 (RAPID) ^P		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2308763	07/07/23 AOAC 2014.05 (RAPID) ^P		

Solvents Method: Residual Solvents by GC/MS^P Units µg/g Batch 2308818 Analyze 07/06/23 09:54 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-Dimethyl butane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< LOQ		200		
2,3-Dimethyl butane	< 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	
Isopropyl benzene (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)^P Units mg/kg Batch 2308874 Analyze 07/07/23 01:18 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*	< LOQ	0.200	mg/kg	0.0174	2308848	07/06/23 AOAC 2013.06 (mod.) ^p	pass	
Cadmium*	< LOQ	0.200	mg/kg	0.0174	2308848	07/06/23 AOAC 2013.06 (mod.) ^p	pass	
Lead*	< LOQ	0.500	mg/kg	0.0174	2308848	07/06/23 AOAC 2013.06 (mod.) ^p	pass	
Mercury*	< LOQ	0.100	mg/kg	0.00869	2308848	07/06/23 AOAC 2013.06 (mod.) ^p	pass	

Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	18.8		g/100g	0.10	2308812	07/05/23 AOAC 925.10 (mod.) ^p		
Water Activity	0.727		Aw	0.030	2308791	07/05/23 AOAC 978.18 ^p		



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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.

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

[¥] = TNI accredited analyte.

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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Cannabis Mult-Residue Profile Limits of Quantitation

Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
Abamectin	0.100	Clethodim	0.050	ndrin	0.100
Acephala	0.100	Clethodim Sulfoxide	0.050	PN	0.050
Acequinocyl	0.100	Clethodim Sulfoxide	0.050	PTC	0.100
Aceamiprid	0.020	Clomezine	0.020	s-envalera e/ envalera e	0.200
Aceochlor	0.100	Clomazone	0.020	aconazole	0.100
Acrinathrin	0.100	Clomazone	0.200	halaluralin	0.100
Alachlor	0.100	Coumaphos	0.050	hioencarb	0.050
Aldicarb	0.100	Croxyphos	0.020	hion	0.200
Aldicarb sulfoxide	0.100	Cyanazine	0.020	hirimol	0.100
Aldoxycarb (Aldicarb-sulfoxide)	0.100	Cyanocephos	0.020	hoimesa e	0.050
Aldrin	0.100	Cyaniliprole	0.050	hoprophos	0.020
Ametoctradin	0.020	Cyazofluprid	0.020	o-enprox	0.020
Ametoctradin	0.500	Cyfluthrin	0.100	oxazole	0.020
Aspersion	0.100	Cyfluthrin	0.200	ridiazole	0.100
Asulam	0.100	Cyhalothrin, lambda	0.200	rimos	0.020
Azinphosmethyl	0.100	Cymoxanil	0.050	amoxadone	0.200
Azinphosmethyl	0.100	Cypermethrin	0.200	amphur	0.100
Azinphosmethyl	0.020	Cyprothrin	0.100	enamidone	0.020
Azinphosmethyl	0.020	Daciflupir	0.100	enamiphos	0.020
Azoxystrobin	0.020	Daminozide	0.100	enamiphos sulfoxide	0.020
Benalaxyl	0.020	DCPMU	0.050	enamiphos sulfoxide	0.020
Bendiocarb	0.020	DDD, o,p'-	0.100	enazaquin	0.100
Benluralin	0.100	DDD, p,p'-	0.100	enbutaconazole	0.100
Benoxacor	0.050	DD, o,p'-	0.100	enchlorphos	0.100
Bensulide	0.050	DD, p,p'-	0.100	enchlorphos-oxon	0.100
Beta-cyfluthrin isomer	0.100	DDT, o,p'-	0.100	enhexamid	0.100
Beta-cyfluthrin isomer	0.100	DDT, p,p'-	0.100	enirohion	0.100
Beta-cyfluthrin isomer	0.500	D (Tribofos)	0.100	enobucarb	0.050
Benazoxypyr	0.020	Deltamethrin	0.100	enoxyphos	0.020
Benfluralin	0.020	Desmedipham	0.100	enpropylphos	0.050
Boscalid	0.020	Diallate	0.100	enpyroximate	0.020
Bromophosmethyl	0.100	Diazinon	0.020	enson	0.100
Bromophosmethyl	0.200	Diazoxon	0.100	ensulohion	0.020
Bromopropylate	0.100	Dichlobenil	0.100	ensulohion oxon	0.020
Bromuconazole	0.100	Dichlomequat	0.100	ensulohion sulfoxide	0.100
Bupirimate	0.020	Dichlorvos	0.100	Fensulfthion-oxon-sulfone	0.020
Buprofezin	0.050	Diclobutylazole	0.050	enbion	0.050
Buthyachlor	0.500	Dicothol	0.100	enbion oxon	0.020
Buthyralin	0.200	Dicrotophos	0.050	enbion oxon sulfoxide	0.100
Buthyryl	0.100	Dieldrin	0.100	enbion sulfoxide	0.050
Cadusafos	0.020	Diehoencarb	0.020	enuron	0.020
Captafent	1.000	Diehoencarb (D T)	0.050	ipronil	0.100
Carbaryl	0.050	Diethofenothal	0.100	lonicamid	0.100
Carbendazim	0.100	Dimehenamid	0.050	luchloralin	0.100
Carbofent	0.020	Dimehoate	0.050	lucyhrinate	0.100
Carbophenothion	0.200	Dimehomorph	0.050	ludioxonil	0.200
Carboxin	0.020	Diniconazole	0.200	luenace	0.020
Carfenthiotrifluthrin	0.100	Dinotefuran	0.200	lumioxazin	0.100
Chloraniliprole	0.020	Dioxathion	0.100	luomeuron	0.020
Chlordane, cis-	0.200	Diphenamid	0.020	luopicolide	0.050
Chlordane, trans-	0.200	Diphenylamine	0.100	luopyram	0.020
Chloraniliprole	0.500	Disulfoton	0.100	luoxastrobin	0.050
Chloraniliprole	0.200	Disulfoton sulfoxide	0.100	lupyradiuron	0.020
Chloraniliprole	0.050	Disulfoton sulfoxide	0.100	luridone	0.100
Chloraniliprole	0.100	Diuron	0.050	lusilazole	0.020
Chloraniliprole	0.200	dienecephos	0.050	luolanil	0.020
Chloraniliprole	0.050	ndosulalan alpha	0.200	luriaol	0.020
Chloraniliprole	0.200	ndosulalan beta	0.200	lualinate, au-	0.100
Chloraniliprole	1.000	ndosulalan sulfate	0.100	luxaproxad	0.020



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Cannab s Mu t -Res due Prof e, L m ts of Quant tat on

Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
omosa en	0.100	Mexacarba e	0.020	Propamocarb	0.050
ono os	0.100	MGK 264	0.020	Propanil	0.050
orchlor enuron	0.050	Mirex	0.100	Propargi e	0.050
orme ana e	0.050	Molina e	0.050	Propazine	0.020
ura hiocarb	0.020	Monocro ophos	0.100	Prope amphos	0.050
ep achlor	0.100	Monolinuron	0.020	Propham	0.050
ep achlor epoxide	0.100	Myclobu anil	0.050	Propiconazole	0.050
ep enophos	0.100	Naled	0.100	Propoxur	0.050
exachlorobenzene	0.100	Napropamide	0.050	Propoxycarbazona Na	0.050
exaconazole	0.100	Neburon	0.020	Propyzamide	0.050
exazinone	0.100	Ni rapyrin	0.100	Pro hio os	0.100
exy hiazox	0.020	Nor lurazon	0.050	Pyraclos robin	0.020
mazalil	0.100	Ome hoa e	0.100	Pyrazophos	0.050
midacloprid	0.100	O-Phenylphenol	0.100	Pyre hrins	0.050
ndazi lam	0.020	Oxadixyl	0.100	Pyridaben	0.020
ndoxacarb	0.020	Oxamyl	0.100	Pyrida ol	0.100
proben os	0.100	Oxamyl-oxime	0.100	Pyrida e	0.020
prodione	0.100	Oxychlorthane	0.100	Pyrima hanil	0.050
sobenzan	0.100	Oxydeme on-Me hyl	0.100	Pyriproxi en	0.020
socarbophos	0.500	Oxy hioquinox	0.200	Pyroxasul one	0.020
sodrin	0.100	Paclobu razol	0.050	Pyroxulam	0.020
so enphos	0.050	Paraaxon-e hyl	0.020	Quinalphos	0.050
so enphos-me hyl	0.020	Paraaxon me hyl	0.100	Quinoxy en	0.050
so enphos oxon	0.050	Para hion e hyl	0.100	Quin ozene (PCNB)	0.200
soproc carb	0.020	Para hion me hyl	0.200	Resme hrin	0.050
sopropalin	0.200	Penconazole	0.050	Ro enone	0.050
sopro hiolane	0.050	Pendime halin	0.050	S421	0.100
sopro uron	0.050	Pen lu en	0.020	Simazine	0.100
soxaben	0.050	Pen achloroaniline	0.100	Sime ryn	0.200
soxa lu ole	0.050	Pen achloroanisole	0.100	Spine oram	0.020
Kresoxim-me hyl	0.050	Pen achlorobenzene (PCB)	0.100	Spinosad	0.050
ac o en	0.500	Pentachlorothioanisole (PCTA)	0.100	Spirodiclo en	0.100
enacil	0.100	Pen hiopyrad	0.020	Spiromesi en	0.050
indane (gamma B C)	0.100	Perme hrin	0.050	Spiro e rama	0.050
inuron	0.020	Per hane	0.100	Spiroxamine	0.020
Malaaxon	0.050	Phenmedipham	0.050	Sul o ep	0.050
Mala hion	0.050	Phen hoa e	0.050	Sul oxa lor	0.050
Mandipropamid	0.020	Phora e	0.050	Sulpro os	0.020
Mecarbam	0.020	Phora e Sul one	0.050	Tebuconazole	0.100
Mepanipyrim	0.050	Phora e Sul oxide	0.050	Tebu enozide	0.020
Merphos	0.500	Phosalone	0.050	Tebu hiuron	0.020
Me alaxyl	0.050	Phosme	0.100	Tecnazene	0.100
Me aldehide	0.050	Phosphamidon	0.050	Te lu hrin	0.100
Me conazole	0.100	Phoxim	0.050	Terbu os	0.020
Me hacri os	0.100	Pinoxaden	0.020	Terbu os sul one	0.050
Me hamidophos	0.050	Piperonyl bu oxide	0.050	Terbu os sul oxide	0.050
Me hida hion	0.050	Pirimicarb	0.020	Terbu hylazine	0.020
Me hiocarb	0.050	Pirimiphos-me hyl	0.050	Terbu ryn	0.020
Me hiocarb sul one	0.100	Pirimiphos-e hyl	0.020	Te rachlorvinphos	0.050
Me hiocarb sul oxide	0.100	Pralle hrin	0.100	Te raconazole	0.050
Me homyl	0.100	Prochloraz	0.020	Te radi on	0.200
Me hoxychlor	0.100	Procyimidone	0.100	Te rame hrin	0.050
Me hoxy enozide	0.020	Pro eno os	0.100	Te rasul	0.100
Me obromuron	0.050	Pro luralin	0.100	Thiabendazole	0.100
Me olachlor	0.100	Promecarb	0.050	Thiabendazole, 5-hydroxy	0.100
Me olcarb	0.050	Prome on	0.100	Thiacloprid	0.050
Me ra enone	0.050	Prome ryn	0.020	Thiame hoxam	0.100
Me ribuzin	0.100	Propachlor	0.020	Thiobencarb	0.050
Mevinphos	0.100			Thiodicarb	0.050
				Thiophana e-me hyl	0.050



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Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
Tolclo os-me hyl	0.100	Triazophos	0.020	Tri loxys robin	0.020
Tri orin	0.100	Tolyl luanid	0.050	Tri iconazole	0.050
Tralkoxydim	0.100	Tridiphane	0.500	Vinclozolin	0.100
Triadime on	0.050	Tri lumizole	0.020	Zoxamide	0.020
Trialla e	0.100	Tri luralin	0.100		

LOQ= Limit of Quantitation, mg/kg

Factors affecting the LOQ include instrument sensitivity or a particular analyte, sample size, moisture content (percent solids) of the sample, effectiveness of the cleanup on the sample extract, and especially the type of sample matrix.



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Hemp & Cannabis
 Chain of Custody

Northwest-Natural-
 Goods-1688390381

ORELAP ID: OR100028 ANAB ED P/025 ID: A1698

	Project Information Project Name: HEMP-EB-0036 PO Number: N/A Turnaround Time: 5 Business Days (Rate, For Micro Testing IS Standard) Samples Delivered to Laboratory: Schedule Pick-Up Cannable Types: Industrial			Test(s)						
				H1001 Potency-Cannabinoid/Basic - Extended Profile	P2320 Pesticide - Multi-Residue Profile	H1008 Residual Solvents-OR	H1003 Heavy Metals Profile (Pb, As, Cd, Fe & Hg)	M025 Total Coliforms - E-Coli	M028 Yeast and Mold	N1001 Moisture and Loss on Drying
#	Sample Name	Material	Amount Provided	Testing Comments						
1	HEMP-EB-0036	Edible	20 units for sale	N550 WATER ACTIVITY	✓	✓	✓	✓	✓	✓

Relinquished By	Date	Time	Temp., °C	Received By	Date	Time	Received Temp., °C	Evidence of Cooling?
Kristen Johnson	7/3/2023	06:19	Temp., °C	MRH	7/3/2023	10:41		No
MRH	7/3/2023	10:41	21.3	MRH	7/3/2023	10:41		No

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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P: (503) 254-1794 Fax: (503) 254-1492
info@columbialaboratories.com

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Revision 2 Document D 7087
 Legacy D CFL-E33Effective

Laboratory Quality Control Results

Residual Solvents				Batch ID: 2308818					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		412	584	µg/g	70.5	60	120
Isobutane	ND	< 200		589	767	µg/g	76.8	60	120
Butane	ND	< 200		562	782	µg/g	71.9	60	120
2,2 Dimethylpropane	ND	< 200		611	939	µg/g	65.1	60	120
Methanol	ND	< 200		1180	1640	µg/g	72.0	60	120
Ethylene Oxide	ND	< 30		41.1	57.1	µg/g	72.0	60	120
2 Methylbutane	ND	< 200		1070	1600	µg/g	66.9	60	120
Pentane	ND	< 200		1090	1620	µg/g	67.3	60	120
Ethanol	ND	< 200		1220	1610	µg/g	75.8	70	130
Ethyl Ether	ND	< 200		1120	1610	µg/g	69.6	60	120
2,2 Dimethylbutane	ND	< 30		118	168	µg/g	70.2	60	120
Acetone	ND	< 200		1150	1620	µg/g	71.0	60	120
2 Propanol	ND	< 200		1250	1600	µg/g	78.1	60	120
Ethyl Formate	ND	< 500		1390	1600	µg/g	86.9	70	130
Acetonitrile	ND	< 100		338	484	µg/g	69.8	60	120
Methyl Acetate	ND	< 500		1400	1610	µg/g	87.0	70	130
2,3 Dimethylbutane	ND	< 30		109	162	µg/g	67.3	60	120
Dichloromethane	ND	< 60		350	483	µg/g	72.5	60	120
2 Methylpentane	ND	< 30		126	174	µg/g	72.4	60	120
M BE	ND	< 500		1370	1610	µg/g	85.1	70	130
3 Methylpentane	ND	< 30		126	168	µg/g	75.0	60	120
Hexane	ND	< 30		117	168	µg/g	69.6	60	120
1 Propanol	ND	< 500		1580	1600	µg/g	98.8	70	130
Methylethylketone	ND	< 500		1430	1620	µg/g	88.3	70	130
Ethyl acetate	ND	< 200		1180	1600	µg/g	73.8	60	120
2 Butanol	ND	< 200		1280	1600	µg/g	80.0	60	120
tetrahydrofuran	ND	< 100		377	514	µg/g	73.3	60	120
Cyclohexane	ND	< 200		1180	1600	µg/g	73.8	60	120
2 methyl 1 propanol	ND	< 500		1650	1610	µg/g	102.5	70	130
Benzene	ND	< 1		3.14	5.12	µg/g	61.3	60	120
Isopropyl Acetate	ND	< 200		1200	1620	µg/g	74.1	60	120
Heptane	ND	< 200		1170	1610	µg/g	72.7	60	120
1 Butanol	ND	< 500		1680	1600	µg/g	105.0	70	130
Propyl Acetate	ND	< 500		1450	1600	µg/g	90.6	70	130
1,4 Dioxane	ND	< 100		377	493	µg/g	76.5	60	120
2 Ethoxyethanol	ND	< 30		134	163	µg/g	82.2	60	120
Methylisobutylketone	ND	< 500		1490	1600	µg/g	93.1	70	130
3 Methyl 1 butanol	ND	< 500		1690	1610	µg/g	105.0	70	130
Ethylene Glycol	ND	< 200		231	483	µg/g	47.8	60	Q6
oluene	ND	< 100		370	493	µg/g	75.1	60	120
Isobutyl Acetate	ND	< 500		1460	1600	µg/g	91.3	70	130
1 Pentanol	ND	< 500		1730	1600	µg/g	108.1	70	130
Butyl Acetate	ND	< 500		1470	1600	µg/g	91.9	70	130
Ethylbenzene	ND	< 200		743	969	µg/g	76.7	60	120
m,p Xylene	ND	< 200		747	968	µg/g	77.2	60	120
o Xylene	ND	< 200		760	976	µg/g	77.9	60	120
Cumene	ND	< 30		123	162	µg/g	75.9	60	120
Anisole	ND	< 500		1440	1610	µg/g	89.4	70	130
DMSO	ND	< 500		1150	1610	µg/g	71.4	70	130
1,2 dimethoxyethane	ND	< 50		140	164	µg/g	85.4	70	130
riethylamine	ND	< 500		1210	1600	µg/g	75.6	70	130
N,N dimethylformamide	ND	< 150		424	484	µg/g	87.6	70	130
N,N dimethylacetamide	ND	< 150		419	489	µg/g	85.7	70	130
Pyridine	ND	< 50		122	172	µg/g	70.9	70	130
Sulfolane	ND	< 50		118	163	µg/g	72.4	70	130
1,2 Dichloroethane	ND	< 1		0.87	1	µg/g	87.0	70	130
Chloroform	ND	< 1		0.968	1	µg/g	96.8	70	130
richloroethylene	ND	< 1		0.963	1	µg/g	96.3	70	130
1,1 Dichloroethane	ND	< 1		0.913	1	µg/g	91.3	70	130



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



Report Number: 23-007835/D002.R000
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Revision 2 Document D 7087
Legacy D CFL-E33Effective

QC - Sample Duplicate		Sample ID: 23-007788-0001						
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	883	893	200	µg/g	1.1	< 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	
M BE	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	
oluene	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	
richloroethylene	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
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: 23-007835/D002.R000
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Revision: 4 Document D: 7148
 Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC2015 V98-6 Batch ID: 2308822

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits		Evaluation	Notes
CBDVA	2	0.0318	0.0316	%	101	80.0	- 120	Acceptable	
CBDV	2	0.0317	0.0315	%	101	80.0	- 120	Acceptable	
CBE	2	0.0347	0.0348	%	99.7	80.0	- 120	Acceptable	
CBD	1	0.0315	0.0325	%	97.1	90.0	- 110	Acceptable	
CBDVA	1	0.0317	0.0326	%	97.1	80.0	- 120	Acceptable	
CBC	1	0.0322	0.0332	%	96.8	80.0	- 120	Acceptable	
CBD	1	0.0329	0.0337	%	97.4	90.0	- 110	Acceptable	
THCV	2	0.0239	0.0236	%	101	80.0	- 120	Acceptable	
Δ8THCV	2	0.0277	0.0279	%	99.2	80.0	- 120	Acceptable	
THCVA	2	0.0309	0.0308	%	100	80.0	- 120	Acceptable	
CBN	1	0.0329	0.0340	%	96.8	80.0	- 120	Acceptable	
exo-THC	2	0.0279	0.0283	%	98.5	80.0	- 120	Acceptable	
Δ9THC	1	0.0320	0.0329	%	97.2	90.0	- 110	Acceptable	
Δ8THC	1	0.0310	0.0320	%	96.7	90.0	- 110	Acceptable	
9SΔ10THC	1	0.0331	0.0343	%	96.8	80.0	- 120	Acceptable	
CBL	2	0.0308	0.0311	%	99.0	80.0	- 120	Acceptable	
9SHHC	3	0.0308	0.0333	%	92.3	80.0	- 120	Acceptable	
9RΔ10THC	1	0.0301	0.0313	%	96.1	80.0	- 120	Acceptable	
CBC	2	0.0287	0.0293	%	98.2	80.0	- 120	Acceptable	
9RHHC	3	0.0291	0.0333	%	87.4	80.0	- 120	Acceptable	
THCA	1	0.0312	0.0322	%	96.7	90.0	- 110	Acceptable	
CBCA	2	0.0318	0.0320	%	99.6	80.0	- 120	Acceptable	
CBLA	2	0.0301	0.0302	%	99.7	80.0	- 120	Acceptable	
Δ9THCP	2	0.0318	0.0326	%	97.5	80.0	- 120	Acceptable	
Δ8THCO	3	0.0329	0.0333	%	98.6	80.0	- 120	Acceptable	
CBT	2	0.0323	0.0326	%	98.9	80.0	- 120	Acceptable	
Δ9THCO	3	0.0303	0.0333	%	90.8	80.0	- 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBDV	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBE	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBD	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBDVA	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBC	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBD	<LOQ	0.00326	%	< 0.00326	Acceptable	
THCV	<LOQ	0.00326	%	< 0.00326	Acceptable	
Δ8THCV	<LOQ	0.00326	%	< 0.00326	Acceptable	
THCVA	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBN	<LOQ	0.00326	%	< 0.00326	Acceptable	
exo-THC	<LOQ	0.00326	%	< 0.00326	Acceptable	
Δ9THC	<LOQ	0.00326	%	< 0.00326	Acceptable	
Δ8THC	<LOQ	0.00326	%	< 0.00326	Acceptable	
9SΔ10THC	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBL	<LOQ	0.00326	%	< 0.00326	Acceptable	
9SHHC	<LOQ	0.00326	%	< 0.00326	Acceptable	
9RΔ10THC	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBC	<LOQ	0.00326	%	< 0.00326	Acceptable	
9RHHC	<LOQ	0.00326	%	< 0.00326	Acceptable	
THCA	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBCA	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBLA	<LOQ	0.00326	%	< 0.00326	Acceptable	
Δ9THCP	<LOQ	0.00326	%	< 0.00326	Acceptable	
Δ8THCO	<LOQ	0.00326	%	< 0.00326	Acceptable	
CBT	<LOQ	0.00326	%	< 0.00326	Acceptable	
Δ9THCO	<LOQ	0.00326	%	< 0.00326	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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 Portland, OR 97230
 503-254-1794



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 Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

JAOAC2015 V98-6		Batch ID: 2308822						
Sample Duplicate		Sample ID: 23-007756-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBD ^A	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBC	0.0198	0.0196	0.00311	%	0.718	< 20	Acceptable	
CBD	0.679	0.672	0.00311	%	1.04	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
δ8THCV	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
THCV/A	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
δ9THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
δ8THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
9S-δ10THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
9S-THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
9R-δ10THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBC	0.00560	0.00555	0.00311	%	1.04	< 20	Acceptable	
9R-THC	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
δ9THCP	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
δ8THCO	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.00311	%	NA	< 20	Acceptable	
δ9THCO	<LOQ	<LOQ	0.00311	%	NA	< 20	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



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12423 NE Whitaker Way
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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.