



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

Customer: NW Natural Goods
Product identity: HEMP - PCH 0009
Client/Metric ID: .
Laboratory ID: 23-006984-0001

Summary

Potency:

Analyte per 4g	Result	Limits	Units	Status	
CBC per 4g	10.1		mg/4g		CBD-Total per Serving Size 21.1 mg/4g
CBD per 4g	21.1		mg/4g		
CBG per 4g	0.648		mg/4g		THC-Total per Serving Size <LOQ
CBT per 4g	0.160		mg/4g		(Reported in milligrams per serving)

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

Analyte	Result (mg/kg)	Limits (mg/kg)	Status
Multi-Residue Pesticide Profile	< LOQ for all analytes		

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

Customer: NW Natural Goods

Product identity: HEMP - PCH 0009

Client/Metric ID: .

Sample Date:

Laboratory ID: 23-006984-0001

Evidence of Cooling: No

Temp: 19.9 °C

Relinquished by: Ramos

Serving Size #1: 4 g

Sample Results

Potency per 4g		Method: J AOAC 2015 V98-6 (mod) ^b		Units mg/se Batch: 2308245		Analyze: 6/14/23 7:42:00 PM
Analyte	Result	Limits	Units	LOQ	Notes	
CBC per 4g	10.1		mg/4g	0.131		
CBC-A per 4g	< LOQ		mg/4g	0.131		
CBC-Total per 4g	10.1		mg/4g	0.245		
CBD per 4g	21.1		mg/4g	0.131		
CBD-A per 4g	< LOQ		mg/4g	0.131		
CBD-Total per 4g	21.1		mg/4g	0.245		
CBDV per 4g	< LOQ		mg/4g	0.131		
CBDV-A per 4g	< LOQ		mg/4g	0.131		
CBDV-Total per 4g	< LOQ		mg/4g	0.244		
CBE per 4g	< LOQ		mg/4g	0.131		
CBG per 4g	0.648		mg/4g	0.131		
CBG-A per 4g	< LOQ		mg/4g	0.131		
CBG-Total per 4g	0.648		mg/4g	0.244		
CBL per 4g	< LOQ		mg/4g	0.131		
CBL-A per 4g	< LOQ		mg/4g	0.131		
CBL-Total per 4g	< LOQ		mg/4g	0.245		
CBN per 4g	< LOQ		mg/4g	0.131		
CBT per 4g	0.160		mg/4g	0.131		
Δ8-THCV per 4g	< LOQ		mg/4g	0.131		
Δ10-THC-9R per 4g	< LOQ		mg/4g	0.131		
Δ10-THC-9S per 4g	< LOQ		mg/4g	0.131		
Δ10-THC-Total per 4g	< LOQ		mg/4g	0.262		
Δ8-THC per 4g	< LOQ		mg/4g	0.131		
Δ9-THC per 4g	< LOQ		mg/4g	0.131		
delta-9-THCP per 4g	< LOQ		mg/4g	0.131		
exo-THC per 4g	< LOQ		mg/4g	0.131		
THC-A per 4g	< LOQ		mg/4g	0.131		
THC-Total per 4g	< LOQ		mg/4g	0.245		
THCV per 4g	< LOQ		mg/4g	0.131		
THCV-A per 4g	< LOQ		mg/4g	0.131		
THCV-Total per 4g	< LOQ		mg/4g	0.246		
Total Cannabinoids per 4g	32.0		mg/4g			



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
E.coli	< LOQ		cfu/g	10	2308186	06/16/23 AOAC 991.14 (Petrifilm) ^P		
Total Coliforms	< LOQ		cfu/g	10	2308186	06/16/23 AOAC 991.14 (Petrifilm) ^P		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2308187	06/16/23 AOAC 2014.05 (RAPID) ^P		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2308187	06/16/23 AOAC 2014.05 (RAPID) ^P		

Solvents Method: Residual Solvents by GC/MS^B Units µg/g Batch 2308251 Analyze 06/15/23 11:17 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)^B Units mg/kg Batch 2308294 Analyze 06/19/23 06:37 PM

Analyte	Result	Limits	Status	Notes
Multi-Residue Pesticide Profile	< LOQ for all analytes			



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic*	< LOQ	0.200	mg/kg	0.0155	2308336	06/16/23 AOAC 2013.06 (mod.) ^p	pass	
Cadmium*	< LOQ	0.200	mg/kg	0.0155	2308336	06/16/23 AOAC 2013.06 (mod.) ^p	pass	
Lead*	< LOQ	0.500	mg/kg	0.0155	2308336	06/16/23 AOAC 2013.06 (mod.) ^p	pass	
Mercury*	< LOQ	0.100	mg/kg	0.00777	2308336	06/16/23 AOAC 2013.06 (mod.) ^p	pass	

Nutrition

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Moisture (Loss on Drying)	18.6		g/100g	0.10	2308238	06/14/23 AOAC 925.10 (mod.) ^p		
Water Activity	0.670		Aw	0.030	2308208	06/14/23 AOAC 978.18 ^p		



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

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 = g

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/4g = Milligram per 4g

% = Percentage of sample

Aw = Water Activity

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14



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
Acephale	0.100	Clethodim Sulfoxide	0.050	PN	0.050
Acequinocyl	0.100	Clofentezine	0.020	PTC	0.100
Aceamiprid	0.020	Clomazone	0.020	s-envalera e/ envalera e	0.200
Aceochlor	0.100	Clofentanil	0.200	aconazole	0.100
Acrinathrin	0.100	Coumaphos	0.050	halaluralin	0.100
Alachlor	0.100	Croxyphos	0.020	hioencarb	0.050
Aldicarb	0.100	Cyanazine	0.020	hion	0.200
Aldicarb sulfoxide	0.100	Cyanoenphos	0.020	hirimol	0.100
Aldoxycarb (Aldicarb-sulfoxide)	0.100	Cyaniliprole	0.050	hoimesa e	0.050
Aldrin	0.100	Cyazofluprid	0.020	hoprophos	0.020
Ametoctradin	0.020	Cycloxyfen	0.100	oenprox	0.020
Ametrin	0.500	Cyfluthrin	0.200	oxazole	0.020
Aspon	0.100	Cyhalothrin, lambda	0.200	ridiazole	0.100
Asulam	0.100	Cymoxanil	0.050	rimos	0.020
Azinphos-methyl	0.100	Cypermethrin	0.200	amoxadone	0.200
Azinphos-methyl	0.020	Cyprodinil	0.100	amphur	0.100
Azinphos-methyl	0.020	Dacifluthrin	0.100	enamidon	0.020
Azoxystrobin	0.020	Daminozide	0.100	enamiphos	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 (Tribuox)	0.100	enobucarb	0.050
Benazoxen	0.020	Deltamethrin	0.100	enoxyacarb	0.020
Benfluridone	0.020	Desmedipham	0.100	enpropacarb	0.050
Boscalid	0.020	Diallate	0.100	enpyroximate	0.020
Bromophos-methyl	0.100	Diazinon	0.020	enson	0.100
Bromophos-methyl	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
Buthyrate	0.500	Dicozol	0.100	enbion oxon	0.020
Buthyrate	0.200	Dicrotophos	0.050	enbion oxon sulfoxide	0.100
Buthyrate	0.100	Dieldrin	0.100	enbion sulfoxide	0.050
Cadusafos	0.020	Diehoencarb	0.020	enuron	0.020
Captafol	1.000	Diehoenolamide (D-T)	0.050	ipronil	0.100
Carbaryl	0.050	Diethofenathrin	0.100	lonicamid	0.100
Carbendazim	0.100	Dimehenamid	0.050	luchloralin	0.100
Carbofenthiol	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
Carfenthiol	0.100	Dinofenpropanil	0.200	lumioxazin	0.100
Chloranil	0.020	Dioxathion	0.100	luomeuron	0.020
Chloranil, cis-	0.200	Diphenamid	0.020	luopicolide	0.050
Chloranil, trans-	0.200	Diphenylamine	0.100	luopyram	0.020
Chlorantraniliprole	0.500	Disulfoton	0.100	luoxastrobin	0.050
Chlorantraniliprole	0.200	Disulfoton sulfoxide	0.100	lupyradiuron	0.020
Chlorantraniliprole	0.050	Disulfoton sulfoxide	0.100	luridone	0.100
Chlorantraniliprole	0.020	Diuron	0.050	lusilazole	0.020
Chlorantraniliprole	0.200	diethofenathrin	0.050	lulanil	0.020
Chlorantraniliprole	0.050	disulfoton alpha	0.200	luriaol	0.020
Chlorantraniliprole	0.200	disulfoton beta	0.200	lualinate, a-	0.100
Chlorantraniliprole	1.000	disulfoton sulfoxide	0.100	luxaproxad	0.020



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14



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 enphos	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 aldehyde	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



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14



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)
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 analysis, sample size, moisture content (percent solids) of the sample, effectiveness of the cleanup on the sample extract, and especially the type of sample matrix.



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14



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

Nor the est-Natural-Goods-
 1688662768

ORELAP ID OR100028 ANAB ISO 17025 IDAT1508

#	Sample Name	Sample Material	Amount Provided	Testing							
				Heavy Metals Profile OR (As, Cd, Pb & Hg)	Moisture as Loss on Drying	Pesticide - Multi-Residue Profile	Potency Cannabinoid Base + Extended Profile	Residual Solvents - OR	Total Coliforms + E.Coli	Water Activity	Yeast and Mold
1	HEMP - PCH 0009	Edible	20 units for sale	✓	✓	✓	✓	✓	✓	✓	✓

Project Information
 Project Name HEMP - PCH 0009
 PO Number N/A
 Turnaround Time 5 Business Days (standard) (required for microbial testing)
 Samples Delivered to Laboratory Schedule Pick-Up
 Pick-Up Location
 Street Address 11791 SE HWY 212 #404
 City, State, Zip Clackamas, Oregon 97015
 Pick-Up Location Phone 386569210

Relinquished By	Date	Time	Temp., °C	Received By	Date	Time	Received Temp. °C	Evidence of Cooling?
<i>Kristen Johnson</i>	<i>6/13/2023</i>	<i>06:26</i>		<i>BR</i>	<i>6/13/2023</i>	<i>10:25</i>		<i>No</i>
<i>BR</i>	<i>6/13/2023</i>	<i>10:59</i>	<i>19.9</i>	<i>MRH</i>	<i>6/13/2023</i>	<i>11:14</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 | Fx (503) 254-1452
info@columbialaboratories.com

Page 1 of 1
www.columbialaboratories.com



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

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

Laboratory Quality Control Results

JAOAC2015 V986 Batch ID: 2308245

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDA	2	0.0296	0.0283	%	104	80.0 - 120	Acceptable		
CBV	2	0.0301	0.0291	%	103	80.0 - 120	Acceptable		
CBE	2	0.0356	0.0344	%	104	80.0 - 120	Acceptable		
CBDA	1	0.0324	0.0324	%	100	90.0 - 110	Acceptable		
CBSA	1	0.0324	0.0328	%	98.7	80.0 - 120	Acceptable		
CBS	1	0.0337	0.0340	%	99.0	80.0 - 120	Acceptable		
CB	1	0.0336	0.0343	%	98.1	90.0 - 110	Acceptable		
THCV	2	0.0214	0.0201	%	106	80.0 - 120	Acceptable		
deltaTHCV	2	0.0271	0.0268	%	101	80.0 - 120	Acceptable		
THCVA	2	0.0313	0.0299	%	105	80.0 - 120	Acceptable		
CBN	1	0.0345	0.0347	%	99.3	80.0 - 120	Acceptable		
exo-THC	2	0.0299	0.0292	%	102	80.0 - 120	Acceptable		
deltaTHC	1	0.0353	0.0351	%	101	90.0 - 110	Acceptable		
deltaTHC	1	0.0445	0.0428	%	104	90.0 - 110	Acceptable		
9SdeltaTHC	1	0.0249	0.0246	%	101	80.0 - 120	Acceptable		
CB	2	0.0330	0.0315	%	105	80.0 - 120	Acceptable		
9SHHC	3	0.0307	0.0333	%	92.1	80.0 - 120	Acceptable		
9RdeltaTHC	1	0.0319	0.0330	%	96.8	80.0 - 120	Acceptable		
CB	2	0.0316	0.0309	%	102	80.0 - 120	Acceptable		
9RHHC	3	0.0290	0.0333	%	87.0	80.0 - 120	Acceptable		
THCA	1	0.0325	0.0332	%	98.1	90.0 - 110	Acceptable		
CBCA	2	0.0340	0.0326	%	104	80.0 - 120	Acceptable		
CBA	2	0.0341	0.0331	%	103	80.0 - 120	Acceptable		
deltaTHCP	2	0.0327	0.0321	%	102	80.0 - 120	Acceptable		
deltaTHCO	3	0.0331	0.0333	%	99.4	80.0 - 120	Acceptable		
CB	2	0.0325	0.0327	%	99.4	80.0 - 120	Acceptable		
deltaTHCO	3	0.0306	0.0333	%	91.9	80.0 - 120	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBV	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBE	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBDA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBSA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBS	<LOQ	0.00329	%	< 0.00329	Acceptable	
CB	<LOQ	0.00329	%	< 0.00329	Acceptable	
THCV	<LOQ	0.00329	%	< 0.00329	Acceptable	
deltaTHCV	<LOQ	0.00329	%	< 0.00329	Acceptable	
THCVA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBN	<LOQ	0.00329	%	< 0.00329	Acceptable	
exo-THC	<LOQ	0.00329	%	< 0.00329	Acceptable	
deltaTHC	<LOQ	0.00329	%	< 0.00329	Acceptable	
deltaTHC	<LOQ	0.00329	%	< 0.00329	Acceptable	
9SdeltaTHC	<LOQ	0.00329	%	< 0.00329	Acceptable	
CB	<LOQ	0.00329	%	< 0.00329	Acceptable	
9SHHC	<LOQ	0.00329	%	< 0.00329	Acceptable	
9RdeltaTHC	<LOQ	0.00329	%	< 0.00329	Acceptable	
CB	<LOQ	0.00329	%	< 0.00329	Acceptable	
9RHHC	<LOQ	0.00329	%	< 0.00329	Acceptable	
THCA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBCA	<LOQ	0.00329	%	< 0.00329	Acceptable	
CBA	<LOQ	0.00329	%	< 0.00329	Acceptable	
deltaTHCP	<LOQ	0.00329	%	< 0.00329	Acceptable	
deltaTHCO	<LOQ	0.00329	%	< 0.00329	Acceptable	
CB	<LOQ	0.00329	%	< 0.00329	Acceptable	
deltaTHCO	<LOQ	0.00329	%	< 0.00329	Acceptable	

Abbreviations

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

Units of Measure:

% - Percent



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

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

Laboratory Quality Control Results

JAOAC2015 V986		Batch ID: 2308245						
Sample Duplicate		Sample ID: 23-0069240001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBSA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBS	0.0182	0.0180	0.00314	%	1.24	< 20	Acceptable	
CB	0.617	0.609	0.00314	%	1.36	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
9Sa10THC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CB	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
9SHHC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
9Ra10THC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CB	0.00548	0.00540	0.00314	%	1.46	< 20	Acceptable	
9RHHC	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CBSA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CHA	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
d9THCP	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
d8THCO	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
CB	<LOQ	<LOQ	0.00314	%	NA	< 20	Acceptable	
d9THCO	<LOQ	<LOQ	0.00314	%	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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

Revision 2 Document D 7087
 Legacy D CFL-E33Effective

Laboratory Quality Control Results

Residual Solvents				Batch D: 2308251					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		535	584	µg/g	91.6	60	120
Isobutane	ND	< 200		683	767	µg/g	89.0	60	120
Butane	ND	< 200		692	782	µg/g	88.5	60	120
2,2 Dimethylpropane	ND	< 200		842	939	µg/g	89.7	60	120
Methanol	ND	< 200		1230	1640	µg/g	75.0	60	120
Ethylene Oxide	ND	< 30		51.2	57.1	µg/g	89.7	60	120
2 Methylbutane	ND	< 200		1180	1600	µg/g	73.8	60	120
Pentane	ND	< 200		1210	1620	µg/g	74.7	60	120
Ethanol	ND	< 200		1260	1610	µg/g	78.3	70	130
Ethyl Ether	ND	< 200		1270	1610	µg/g	78.9	60	120
2,2 Dimethylbutane	ND	< 30		160	168	µg/g	95.2	60	120
Acetone	ND	< 200		1530	1620	µg/g	94.4	60	120
2 Propanol	ND	< 200		1540	1600	µg/g	96.3	60	120
Ethyl Formate	ND	< 500		1430	1600	µg/g	89.4	70	130
Acetonitrile	ND	< 100		441	484	µg/g	91.1	60	120
Methyl Acetate	ND	< 500		1570	1610	µg/g	97.5	70	130
2,3 Dimethylbutane	ND	< 30		149	162	µg/g	92.0	60	120
Dichloromethane	ND	< 60		458	483	µg/g	94.8	60	120
2 Methylpentane	ND	< 30		162	174	µg/g	93.1	60	120
M BE	ND	< 500		1600	1610	µg/g	99.4	70	130
3 Methylpentane	ND	< 30		167	168	µg/g	99.4	60	120
Hexane	ND	< 30		155	168	µg/g	92.3	60	120
1 Propanol	ND	< 500		1540	1600	µg/g	96.3	70	130
Methylethylketone	ND	< 500		1580	1620	µg/g	97.5	70	130
Ethyl acetate	ND	< 200		1510	1600	µg/g	94.4	60	120
2 Butanol	ND	< 200		1500	1600	µg/g	93.8	60	120
tetrahydrofuran	ND	< 100		481	514	µg/g	93.6	60	120
Cyclohexane	ND	< 200		1520	1600	µg/g	95.0	60	120
2 methyl 1 propanol	ND	< 500		1640	1610	µg/g	101.9	70	130
Benzene	ND	< 1		3.91	5.12	µg/g	76.4	60	120
Isopropyl Acetate	ND	< 200		1510	1620	µg/g	93.2	60	120
Heptane	ND	< 200		1480	1610	µg/g	91.9	60	120
1 Butanol	ND	< 500		1570	1600	µg/g	98.1	70	130
Propyl Acetate	ND	< 500		1530	1600	µg/g	95.6	70	130
1,4 Dioxane	ND	< 100		442	493	µg/g	89.7	60	120
2 Ethoxyethanol	ND	< 30		116	163	µg/g	71.2	60	120
Methylisobutylketone	ND	< 500		1500	1600	µg/g	93.8	70	130
3 Methyl 1 butanol	ND	< 500		1600	1610	µg/g	99.4	70	130
Ethylene Glycol	ND	< 200		316	483	µg/g	65.4	60	120
oluene	ND	< 100		440	493	µg/g	89.2	60	120
Isobutyl Acetate	ND	< 500		1510	1600	µg/g	94.4	70	130
1 Pentanol	ND	< 500		1480	1600	µg/g	92.5	70	130
Butyl Acetate	ND	< 500		1490	1600	µg/g	93.1	70	130
Ethylbenzene	ND	< 200		845	969	µg/g	87.2	60	120
m,p Xylene	ND	< 200		833	968	µg/g	86.1	60	120
o Xylene	ND	< 200		843	976	µg/g	86.4	60	120
Cumene	ND	< 30		140	162	µg/g	86.4	60	120
Anisole	ND	< 500		1450	1610	µg/g	90.1	70	130
DMSO	ND	< 500		1020	1610	µg/g	63.4	70	130 Q6
1,2 dimethoxyethane	ND	< 50		161	164	µg/g	98.2	70	130
riethylamine	ND	< 500		744	1600	µg/g	46.5	70	130 Q6
N,N dimethylformamide	ND	< 150		204	484	µg/g	42.1	70	130 Q6
N,N dimethylacetamide	ND	< 150		264	489	µg/g	54.0	70	130 Q6
Pyridine	ND	< 50		71.2	172	µg/g	41.4	70	130 Q6
Sulfone	ND	< 50		116	163	µg/g	71.2	70	130
1,2 Dichloroethane	ND	< 1		1.01	1	µg/g	101.0	70	130
Chloroform	ND	< 1		0.988	1	µg/g	98.8	70	130
richloroethylene	ND	< 1		0.973	1	µg/g	97.3	70	130
1,1 Dichloroethane	ND	< 1		0.998	1	µg/g	99.8	70	130



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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

Revision 2 Document D 7087
 Legacy D CFL-E33Effective

QC - Sample Duplicate Sample ID: 23-006844-0001

Analyte	Result	Org. Result	LOQ Units	RPD	Limits	Accept/ Fail	Notes
Propane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2,2 Dimethylpropane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30 µg/g	0.0	< 20	Acceptable	
2 Methylbutane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2,2 Dimethylbutane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200 µg/g	0.0	< 20	Acceptable	
2 Propanol	ND	ND	200 µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100 µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500 µg/g	0.0	< 20	Acceptable	
2,3 Dimethylbutane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60 µg/g	0.0	< 20	Acceptable	
2 Methylpentane	ND	ND	30 µg/g	0.0	< 20	Acceptable	
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	
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	
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: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14





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



Report Number: 23-006984/D002.R000
Report Date: 06/20/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/13/23 11:14

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.