



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



Report Number: 21-000242/D02.R00
Report Date: 01/15/2021
ORELAP#: OR100028
Purchase Order:
Received: 01/08/21 14:08

Customer: Luff Brands
Product identity: Dream Capsule
Client/Metric ID: .
Laboratory ID: 21-000242-0001

Sample Date: 01/08/21 12:00

Summary

Potency:

Analyte	Result (%)			
CBD	10.2		CBD	CBD-Total 10.2%
CBN	2.12		CBN	
CBDV [†]	0.0685		CBDV	THC-Total 0.0132%
Δ9-THC	0.0132		9-THC	(Reported in percent of total sample)
THCV [†]	0.00444		THCV	
CBG [†]	0.00364		CBG	

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

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

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



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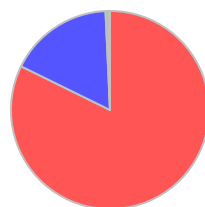
Customer: Luff Brands

Product identity: Dream Capsule
Client/Metric ID: .
Sample Date: 01/08/21 12:00
Laboratory ID: 21-000242-0001
Relinquished by: Client
Temp: 18.9 °C

Sample Results

Potency **Method J AOAC 2015 V98-6 (mod) Batch: 2100318 Analyze: 1/12/21 4:46:00 PM**

Analyte	As Received	Dry weight	LOQ	Notes
CBC	< LOQ		0.0032	
CBC-A†	< LOQ		0.0032	
CBC-Total†	< LOQ		0.0060	
CBD	10.2		0.320	
CBD-A	< LOQ		0.0032	
CBD-Total	10.2		0.322	
CBDV†	0.0685		0.0032	
CBDV-A†	< LOQ		0.0032	
CBDV-Total†	0.0685		0.0060	
CBG†	0.00364		0.0032	
CBG-A†	< LOQ		0.0032	
CBG-Total	< LOQ		0.0060	
CBL†	< LOQ		0.0032	
CBN	2.12		0.0320	
Δ8-THC†	< LOQ		0.0032	
Δ9-THC	0.0132		0.0032	
THC-A	< LOQ		0.0032	
THC-Total	0.0132		0.0060	
THCV†	0.00444		0.0032	
THCV-A†	< LOQ		0.0032	
THCV-Total†	< LOQ		0.0060	
Total Cannabinoids†	12.4			



- CBD
- CBN
- CBDV
- 9-THC
- THCV
- CBG

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes
E.coli	< LOQ		cfu/g	10	2100221	01/11/21	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ		cfu/g	10	2100221	01/11/21	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2100222	01/11/21	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2100222	01/11/21	AOAC 2014.05 (RAPID)	X

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 333-007-0410 OAR 333-007-0430



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Solvents		Method EPA5021A				Units µg/g	Batch 2100246	Analyze 01/11/21 08:50 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	< LOQ		200		
2-Methylpentane	< LOQ		30.0			2-Propanol (IPA)	< LOQ	5000	200	pass	
2,2-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane	< LOQ		200		
2,3-Dimethylbutane	< LOQ		30.0			3-Methylpentane	< LOQ		30.0		
Acetone	< LOQ	5000	200	pass		Acetonitrile	< LOQ	410	100	pass	
Benzene	< LOQ	2.00	1.00	pass		Butanes (sum)	< LOQ	5000	400	pass	
Cyclohexane	< LOQ	3880	200	pass		Ethyl acetate	< LOQ	5000	200	pass	
Ethyl benzene	< LOQ		200			Ethyl ether	< LOQ	5000	200	pass	
Ethylene glycol	< LOQ	620	200	pass		Ethylene oxide	< LOQ	50.0	30.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene	< LOQ	70.0	30.0	pass		m,p-Xylene	< LOQ		200		
Methanol	< LOQ	3000	200	pass		Methylene chloride	< LOQ	600	200	pass	
Methylpropane	< 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	< LOQ	2170	600	pass	

Pesticides		Method AOAC 2007.01 & EN 15662 (mod)			Units mg/kg	Batch 2100384	Analyze 01/14/21 02:12 PM		
Analyte	Result	Limits	Status	Notes					
Multi-Residue Pesticide Profile ¹	< LOQ for all analytes								

Metals									
Analyte	Result	Limits	Units	LOQ	Batch	Analyze	Method	Notes	
Arsenic	< LOQ		mg/kg	0.0410	2100353	01/13/21	AOAC 2013.06 (mod.)	X	
Cadmium	< LOQ		mg/kg	0.0410	2100353	01/13/21	AOAC 2013.06 (mod.)	X	
Lead	< LOQ		mg/kg	0.0410	2100353	01/13/21	AOAC 2013.06 (mod.)	X	
Mercury	< LOQ		mg/kg	0.0205	2100353	01/13/21	AOAC 2013.06 (mod.)	X	



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These test results are representative of the individual sample selected and submitted by the client.

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220

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.

† = Analyte not NELAP accredited.

Units of Measure

cfu/g = Colony forming units per gram

µg/g = Microgram per gram

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

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)	Compound	LOQ (mg/kg)
Abamectin	0.100	Cbthodim	0.050	Endrin	0.100
Acephate	0.100	Cbthodim Sulfone	0.050	EPN	0.050
Acequinocyl	0.100	Cbthodim Sulfoxide	0.050	EPTC	0.100
Acetamiprid	0.020	Cbfbentazene	0.020	Esfenvalerate/ Fenvalerate	0.200
Acetochlor	0.100	Cbmazone	0.020	Etaconazole	0.100
Acrinathrin	0.100	Cbthianidin	0.200	Ethalfuralin	0.100
Alachlor	0.100	Cumaphos	0.050	Ethiofencarb	0.050
Aldicarb	0.100	Crdoxyphos	0.020	Ethion	0.200
Aldicarb sulfoxide	0.100	Cyarazine	0.020	Ethirimol	0.100
Aldoxycarb (Aldicarb-sulfone)	0.100	Cyarofenphos	0.020	Ethofumesate	0.050
Aldrin	0.100	Cyatr aniliprole	0.050	Ethoprophos	0.020
Ametoctradin	0.020	Cyazfamid	0.020	Etofenprox	0.020
Ametryn	0.500	Cydoate	0.100	Etoxazole	0.020
Aspon	0.100	Cyfluthrin	0.200	Etridiazole	0.100
Asulam	0.100	Cyfluthrin, lambda	0.200	Etrinfos	0.020
Atrazine	0.100	Cymoxanil	0.050	Famoxadone	0.200
Atrazine-desethyl	0.100	Cypermethrin	0.200	Famphur	0.100
Azinphos-ethyl	0.020	Cyprodinil	0.100	Fenamidone	0.020
Azinphos-methyl	0.020	Dadhal	0.100	Fenamiphos	0.020
Azoxystrobin	0.020	Damhozide	0.100	Fenamiphos sulfone	0.020
Beralaxyl	0.020	DCPMU	0.050	Fenamiphos sulfoxide	0.020
Bendiocarb	0.020	DDD, op'-	0.100	Fenazaquin	0.100
Berfluralin	0.100	DDD, p,p'-	0.100	Fenbuconazole	0.100
Berxacor	0.050	DDE, o,p'-	0.100	Fenchlorphos	0.100
Bersulide	0.050	DDE, p,p'-	0.100	Fenchlorphos-oxon	0.100
BHC alpha isomer	0.100	DDT, o,p'-	0.100	Fenhexamid	0.100
BHC beta isomer	0.100	DDT, p,p'-	0.100	Fenitrothion	0.100
BHC delta isomer	0.500	DEF (Tribufos)	0.100	Fenobucarb	0.050
Bifenazate	0.020	Detamethrin	0.100	Fenoxycarb	0.020
Bifenthrin	0.020	Desmedipham	0.100	Fenpropathrin	0.050
Boscalid	0.020	Diallate	0.100	Fenpyroximate	0.020
Bromophos-ethyl	0.100	Diazinon	0.020	Fenson	0.100
Bromophos-methyl	0.200	Diazoxon	0.100	Fensulfthion	0.020
Bromopropylate	0.100	Dichlobenil	0.100	Fensulfthion oxon	0.020
Bromuconazole	0.100	Dichlofluanid	0.100	Fensulfthion sulfone	0.100
Bupirimate	0.020	Dichlorvos	0.100	Fensulfthion-oxon-sulfone	0.020
Buprofezin	0.050	Diclobutrazol	0.050	Fenthion	0.050
Butachlor	0.500	Dicofol	0.100	Fenthion oxon	0.020
Butralin	0.200	Dicrotophos	0.050	Fenthion oxon sulfone	0.100
Butylate	0.100	Dieldrin	0.100	Fenthion sulfone	0.050
Cadusafos	0.020	Diethofencarb	0.020	Fenuron	0.020
Captan	1.000	Diethyltoluamide (DEET)	0.050	Fipronil	0.100
Carbaryl	0.050	Difenoconazole	0.100	Fonicamid	0.100
Carbendazim	0.100	Dimethenamid	0.050	Fluchloralin	0.100
Carbendiazim	0.100	Dimethoate	0.050	Flucythrinate	0.100
Carbendiazim	0.020	Dimethomorph	0.050	Fludioxonil	0.200
Carbophenothion	0.200	Diniconazole	0.200	Flufenacet	0.020
Carboxin	0.020	Dinotefuran	0.200	Fumioxazin	0.100
Carfentrazone-ethyl	0.100	Dioxathion	0.100	Fuometuron	0.020
Chlorantriliprole	0.020	Diphenamid	0.020	Fluopicolide	0.050
Chordane, cis-	0.200	Diphenylamine	0.100	Fluopyram	0.020
Chordane, trans-	0.200	Disulfoton	0.100	Fluoxastrobin	0.050
Chlorfenapyr	0.500	Disulfoton sulfone	0.100	Flupyradifurone	0.020
Chlorfenson	0.200	Disulfoton sulfoxide	0.100	Fluridone	0.100
Chlorfenvinphos	0.050	Diuron	0.050	Flusilazole	0.020
Chlorobenzilate	0.100	Edifenphos	0.050	Flutolanil	0.020
Chloroneb	0.200	Endosulfan alpha	0.200	Flutriafol	0.020
Chlorpyrifos	0.050	Endosulfan beta	0.200	Fluvalinate, tau-	0.100
Chlorpyrifos-methyl	0.200	Endosulfan sulfate	0.100	Fluxapyroxad	0.020
CIR	1.000				



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)
Fomesafen	0.100	Mexacarbate	0.020	Prpamacarb	0.050
Fonofos	0.100	MGK 264	0.020	Prparil	0.050
Forchlorfenuron	0.050	Mirex	0.100	Prpargite	0.050
Formetanate	0.050	Molinate	0.050	Prpazine	0.020
Furathiocarb	0.020	Monocrotophos	0.100	Prpetafphos	0.050
Heptachlor	0.100	Monolinuron	0.020	Prpopham	0.050
Heptachlor epoxide	0.100	Myclobutanil	0.050	Prpiconazole	0.050
Heptenophos	0.100	Naled	0.100	Prpoxur	0.050
Hexachlorobenzene	0.100	Napropamide	0.050	Prpoxycarbazone Na	0.050
Hexaconazole	0.100	Neburon	0.020	Prpopyamide	0.050
Hexazinone	0.100	Nitrapyrin	0.100	Prrothiofos	0.100
Hexythiazox	0.020	Norflurazon	0.050	Pyraclostrobin	0.020
Imazalil	0.100	Omethoate	0.100	Pyrazophos	0.050
Imidacoprid	0.100	O-Phenylphenol	0.100	Pyrethrins	0.050
Indaziflam	0.020	Oxadixyl	0.100	Pyridaben	0.020
Indoxacarb	0.020	Oxamyl	0.100	Pyridafol	0.100
Iprobenfos	0.100	Oxamyl-oxime	0.100	Pyridate	0.020
Iprodione	0.100	Oxychloridane	0.100	Pyrimetharil	0.050
Isobenzan	0.100	Oxydemeton-Methyl	0.100	Pyriproxifen	0.020
Isocarbophos	0.500	Oxythioquinox	0.200	Pyroxasulfone	0.020
Isodrin	0.100	Padlobutrazol	0.050	Pyroxulam	0.020
Isfenphos	0.050	Paraoxon-ethyl	0.020	Quinalphos	0.050
Isfenphos-methyl	0.020	Paraoxon methyl	0.100	Quinoxifen	0.050
Isfenphos oxon	0.050	Parathion ethyl	0.100	Quintozene (PQNB)	0.200
Isoprocarb	0.020	Parathion methyl	0.200	Resmethrin	0.050
Isopropalin	0.200	Perconazole	0.050	Rotenone	0.050
Isoprothiolane	0.050	Perdimethalin	0.050	S421	0.100
Isoproturon	0.050	Perflufen	0.020	Smaazine	0.100
Isoxaben	0.050	Pertachloroaniline	0.100	Smectryn	0.200
Isoxaflutole	0.050	Pertachloroanisole	0.100	Spinetoram	0.020
Kresoxim-methyl	0.050	Pentachlorobenzene (PCB)	0.100	Spinosad	0.050
Ladofen	0.500	Pentachlorothioanisole (PCTA)	0.100	Spirodiclofen	0.100
Lenadi	0.100	Perthiopyrad	0.020	Spiromesifen	0.050
Lindane (gammaBHC)	0.100	Permethrin	0.050	Spirotetramat	0.050
Linuron	0.020	Perthane	0.100	Spiroxamine	0.020
Malaoxon	0.050	Phenmedipham	0.050	Sulfotep	0.050
Malathion	0.050	Phenthoate	0.050	Sulfoxaflof	0.050
Mandipropamid	0.020	Phorate	0.050	Sulprofos	0.020
Mecarbam	0.020	Phorate Sulfone	0.050	Tebuconazole	0.100
Mepanipyrim	0.050	Phorate Sulfoxide	0.050	Tebufenozide	0.020
Merphos	0.500	Phosalone	0.050	Tebuthiuron	0.020
Metalaxyl	0.050	Phosmet	0.100	Tecnazene	0.100
Metaldehyde	0.050	Phosphamidon	0.050	Tefluthrin	0.100
Metconazole	0.100	Phoxim	0.050	Terbufos	0.020
Methacifos	0.100	Pinoxaden	0.020	Terbufos sulfone	0.050
Methamidophos	0.050	Piperonyl butoxide	0.050	Terbufos sulfoxide	0.050
Methidathion	0.050	Pirimicarb	0.020	Terbuthylazine	0.020
Methiocarb	0.050	Pirimiphos-methyl	0.050	Terbutryn	0.020
Methiocarb sulfone	0.100	Pirimiphos-ethyl	0.020	Tetrachlorvinphos	0.050
Methiocarb sulfoxide	0.100	Prailethrin	0.100	Tetraconazole	0.050
Methomyl	0.100	Prochloraz	0.020	Tetradfon	0.200
Methoxychlor	0.100	Procyimdone	0.100	Tetramethrin	0.050
Methoxyfenozide	0.020	Prfenofos	0.100	Tetrasul	0.100
Metobromuron	0.050	Prfluralin	0.100	Thiabendazole	0.100
Metolachlor	0.100	Promecarb	0.050	Thiabendazole, 5-hydroxy	0.100
Metolcarb	0.050	Prometon	0.100	Thiadoprid	0.050
Metraferone	0.050	Prometryn	0.020	Thiamethoxam	0.100
Metribuzin	0.100	Prpadhlor	0.020	Thiobencarb	0.050
Mevinphos	0.100			Thiodicarb	0.050
				Thiophanate-methyl	0.050



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Cannabis Multi-Residue Profile, Limits of Quantitation

Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)	Compound	LOQ(mg/kg)
Tolclofos-methyl	0.100	Triazophos	0.020	Trifloxystrobin	0.020
Triforin	0.100	Tolyfluarid	0.050	Triticonazole	0.050
Tralkoxydim	0.100	Tridiphane	0.500	Vindozolin	0.100
Triadimefon	0.050	Triflumizde	0.020	Zoxamide	0.020
Triallate	0.100	Trifluralin	0.100		

LOQ=Limit of Quantitation, mg/kg

Factors affecting the LOQ include instrumentation sensitivity for 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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21-000242



Hemp / Cannabis Usable / Extract
Chain of Custody Record
 Revision: 3.01 Control#: CF023 Rev 02/26/2020 Eff: 02/27/2020
 ORELAP ID: OR100028

Company: <u>LUFF Brands</u> Contact: <u>John Sweeney</u> Street: <u>5531 S Macadam Ave STE 258-741</u> City: <u>Portland</u> State: <u>OR</u> Zip: <u>97239</u> <input checked="" type="checkbox"/> Email Results: <u>john@luffbrands.com</u> Ph: (617) <u>852-3573</u> <input type="checkbox"/> Fx Results: () _____ Billing (if different): _____				Analysis Requested										PO Number: _____ Project Number: _____ Project Name: _____ Custom Reporting: _____ Report to State - <input type="checkbox"/> METRC or <input type="checkbox"/> Other: _____ Turnaround time: <input type="checkbox"/> Standard <input type="checkbox"/> Rush * <input type="checkbox"/> Priority Rush * <i>*Check for availability</i> Sampled by: _____			
Lab ID	Client Sample Identification	Date	Time	Pesticides - OR 59 compounds	Pesticide Multi-Residue - 379 compounds	Potency	Residual Solvents	Moisture & Water Activity	Terpenes	Micro: Yeast and Mold	Micro: E. Coli and Total Coliform	Heavy Metals	Mycotoxins	Other	Sample Type †	Weight (Units)	Comments/Metric ID
1	Dream Capsule	1/8/21	12:00	✓	✓	✓				✓	✓	✓			C	115 g	
Relinquished By:			Date	Time	Received By:			Date	Time	Lab Use Only:							
			02/14/21					1/8	14:08	<input type="checkbox"/> Shipped Via: _____ or <input type="checkbox"/> Client drop Evidence of cooling: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No - Temp (°C): <u>18.9</u> Sample in good condition: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Cash <input type="checkbox"/> Check <input type="checkbox"/> CC <input type="checkbox"/> Net: _____ Prelog storage: _____							

† - Sample Type Codes: Vegetation (V) ; Isolates (S) ; Extract/Concentrate (C)

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service associated with this COC. By signing "Relinquished by" you are agreeing to these terms
 12423 NE Whitaker Way
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 P: (503) 254-1794 | Fax: (503) 254-1452
info@columbialaboratories.com
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www.columbialaboratories.com



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Laboratory Quality Control Results

Residual Solvents		Batch ID: 2100246							
Method Blank	Laboratory Control Sample								
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		549	595	µg/g	92.3 70	- 130	
Isobutane	ND	< 200		730	761	µg/g	95.9 70	- 130	
Butane	ND	< 200		740	761	µg/g	97.2 70	- 130	
2,2-Dimethylpropane	ND	< 200		895	955	µg/g	93.7 70	- 130	
Methanol	ND	< 200		1640	1610	µg/g	101.9 70	- 130	
Ethylene Oxide	ND	< 30		56	58.3	µg/g	96.1 70	- 130	
2-Methylbutane	ND	< 200		1360	1600	µg/g	85.0 70	- 130	
Pentane	ND	< 200		1430	1610	µg/g	88.8 70	- 130	
Ethanol	ND	< 200		1610	1610	µg/g	100.0 70	- 130	
Ethyl Ether	ND	< 200		1620	1610	µg/g	100.6 70	- 130	
2,2-Dimethylbutane	ND	< 30		165	168	µg/g	98.2 70	- 130	
Acetone	ND	< 200		1620	1610	µg/g	100.6 70	- 130	
2-Propanol	ND	< 200		1680	1600	µg/g	105.0 70	- 130	
Ethyl Formate	ND	< 500		1570	1710	µg/g	91.8 70	- 130	
Acetonitrile	ND	< 100		484	486	µg/g	99.6 70	- 130	
Methyl Acetate	ND	< 500		1590	1610	µg/g	98.8 70	- 130	
2,3-Dimethylbutane	ND	< 30		158	162	µg/g	97.5 70	- 130	
Dichloromethane	ND	< 200		496	490	µg/g	101.2 70	- 130	
2-Methylpentane	ND	< 30		154	164	µg/g	93.9 70	- 130	
MTBE	ND	< 500		1590	1620	µg/g	98.1 70	- 130	
3-Methylpentane	ND	< 30		150	166	µg/g	90.4 70	- 130	
Hexane	ND	< 30		165	167	µg/g	98.8 70	- 130	
1-Propanol	ND	< 500		1570	1600	µg/g	98.1 70	- 130	
Methyl ethyl ketone	ND	< 500		1590	1610	µg/g	98.8 70	- 130	
Ethyl acetate	ND	< 200		1660	1610	µg/g	103.1 70	- 130	
2-Butanol	ND	< 200		1700	1610	µg/g	105.6 70	- 130	
Tetrahydrofuran	ND	< 100		502	484	µg/g	103.7 70	- 130	
Cyclohexane	ND	< 200		1670	1610	µg/g	103.7 70	- 130	
2-methyl-1-propanol	ND	< 500		1700	1610	µg/g	105.6 70	- 130	
Benzene	ND	< 1		20.9	24.5	µg/g	85.3 70	- 130	
Isopropyl Acetate	ND	< 200		1630	1620	µg/g	100.6 70	- 130	
Heptane	ND	< 200		1650	1610	µg/g	102.5 70	- 130	
1-Butanol	ND	< 500		1830	1600	µg/g	114.4 70	- 130	
Propyl Acetate	ND	< 500		1700	1620	µg/g	104.9 70	- 130	
1,4-Dioxane	ND	< 100		508	484	µg/g	105.0 70	- 130	
2-Ethoxyethanol	ND	< 30		180	186	µg/g	96.8 70	- 130	
Methylisobutylketone	ND	< 500		1960	1610	µg/g	121.7 70	- 130	
3-Methyl-1-butanol	ND	< 500		1980	1610	µg/g	123.0 70	- 130	
Ethylene Glycol	ND	< 200		550	509	µg/g	108.1 70	- 130	
Toluene	ND	< 200		488	492	µg/g	99.2 70	- 130	
Isobutyl Acetate	ND	< 500		1800	1610	µg/g	111.8 70	- 130	
1-Pentanol	ND	< 500		1720	1620	µg/g	106.2 70	- 130	
Butyl Acetate	ND	< 500		1720	1610	µg/g	106.8 70	- 130	
Ethylbenzene	ND	< 200		1040	971	µg/g	107.1 70	- 130	
m,p-Xylene	ND	< 200		1020	975	µg/g	104.6 70	- 130	
o-Xylene	ND	< 200		1010	966	µg/g	104.6 70	- 130	
Cumene	ND	< 30		179	167	µg/g	107.2 70	- 130	
Anisole	ND	< 500		1700	1610	µg/g	105.6 70	- 130	
DMSO	ND	< 500		1460	1650	µg/g	88.5 70	- 130	
1,2-dimethoxyethane	ND	< 50		173	170	µg/g	101.8 70	- 130	
Triethylamine	ND	< 500		1540	1610	µg/g	95.7 70	- 130	
1,1-dimethylformamide	ND	< 150		534	490	µg/g	109.0 70	- 130	
1,1-dimethylacetamide	ND	< 150		522	485	µg/g	107.6 70	- 130	
Pyridine	ND	< 50		178	167	µg/g	106.6 70	- 130	



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



Report Number: 21-000242/D02.R00
Report Date: 01/15/2021
ORELAP#: OR100028
Purchase Order:
Received: 01/08/21 14:08

QC- Sample Duplicate Sample ID: 21-000123-0001

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	
Ethane	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	200	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MIBK	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 Isobutyl 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	100	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	200	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	

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



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Portland, OR 97230
503-254-1794

Report Number: 21-000242/D02.R00
Report Date: 01/15/2021
ORELAP#: OR100028
Purchase Order:
Received: 01/08/21 14:08



Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

JAOAC2015 V986 Batch ID: 2100318

Laboratory Control Sample								
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDA	0.00937	0.01	%	93.7	85.0 - 115	Acceptable		
CBV	0.00954	0.01	%	95.4	85.0 - 115	Acceptable		
CBDA	0.0102	0.01	%	102	85.0 - 115	Acceptable		
CBGA	0.00946	0.01	%	94.6	85.0 - 115	Acceptable		
CBG	0.00969	0.01	%	96.9	85.0 - 115	Acceptable		
CB	0.0105	0.01	%	105	85.0 - 115	Acceptable		
THCV	0.00974	0.01	%	97.4	85.0 - 115	Acceptable		
THCVA	0.00875	0.01	%	87.5	85.0 - 115	Acceptable		
CBN	0.0109	0.01	%	109	85.0 - 115	Acceptable		
THC	0.0106	0.01	%	106	85.0 - 115	Acceptable		
DBTHC	0.00931	0.01	%	93.1	85.0 - 115	Acceptable		
CB	0.00942	0.01	%	94.2	85.0 - 115	Acceptable		
CB	0.00970	0.01	%	97.0	85.0 - 115	Acceptable		
THCA	0.0101	0.01	%	101	85.0 - 115	Acceptable		
CBDA	0.00906	0.01	%	90.6	85.0 - 115	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes	
CBDA	<LOQ	0.0006	%	< 0.0006	Acceptable		
CBV	<LOQ	0.0006	%	< 0.0006	Acceptable		
CBDA	<LOQ	0.0006	%	< 0.0006	Acceptable		
CBGA	<LOQ	0.0006	%	< 0.0006	Acceptable		
CBG	<LOQ	0.0006	%	< 0.0006	Acceptable		
CB	<LOQ	0.0006	%	< 0.0006	Acceptable		
THCV	<LOQ	0.0006	%	< 0.0006	Acceptable		
THCVA	<LOQ	0.0006	%	< 0.0006	Acceptable		
CBN	<LOQ	0.0006	%	< 0.0006	Acceptable		
THC	<LOQ	0.0006	%	< 0.0006	Acceptable		
DBTHC	<LOQ	0.0006	%	< 0.0006	Acceptable		
CB	<LOQ	0.0006	%	< 0.0006	Acceptable		
CB	<LOQ	0.0006	%	< 0.0006	Acceptable		
THCA	<LOQ	0.0006	%	< 0.0006	Acceptable		
CBDA	<LOQ	0.0006	%	< 0.0006	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: 21-000242/D02.R00
Report Date: 01/15/2021
ORELAP#: OR100028
Purchase Order:
Received: 01/08/21 14:08

Revision #: 0.00 Control : CFL-D06
Revision Date: 05/31/2019 Effective Date: 05/31/2019

Laboratory Quality Control Results

JAOAC2015 V986		Batch ID: 2100318						
Sample Duplicate		Sample ID: 21-000152-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDV-A	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	0.00304	<LOQ	0.003	%	NA	< 20	Acceptable	
CBD-A	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG-A	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBD	0.631	0.629	0.003	%	0.242	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBN	0.116	0.115	0.003	%	0.222	< 20	Acceptable	
THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
D8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CEC	0.00787	0.00783	0.003	%	0.394	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CECA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	

Abbreviations

- ND - None Detected at or above MRL
- RPD - Relative Percent Difference
- LOQ - Limit of Quantitation
- NA - Calculation Not Applicable given non-numerical results

Units of Measure

%- Percent



12423 NE Whitaker Way
 Portland, OR 97230
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Report Number: 21-000242/D02.R00
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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.