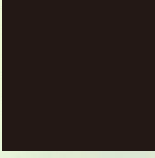


Certificate ID: **92606 (Reissued)** Received: **2/26/21**
 Client Sample ID: **0005-RK-A JCA Isolate from Matured Stalks**
 Lot Number: **20HME-508-001**
 Matrix: **Isolates - CBD**

Scan QR Code for authenticity



Oregon Vitality LLC
Bend, OR 97703
Attn: JC Riggs

Authorization: Chris Hudalla, Chief Science Officer	Signature: 	Date: 6/9/2021
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01] Analyst: *JFD* Test Date: *3/2/2021*

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations. Additional evaluations by LCMS were used to confirm the absence of THC with a Limit of Quantitation of 0.025%. Optical purity, based on absence of additional chromatographic signals, is estimated at 99.4%.

92606-CN

ID	Weight %	Concentration (mg/g)		
D9-THC	ND	ND		
THCV	ND	ND		
CBD	97.8	978		
CBDV	0.335	3.35		
CBG	ND	ND		
CBC	ND	ND		
CBN	ND	ND		
THCA	ND	ND		
CBDA	ND	ND		
CBGA	ND	ND		
D8-THC	ND	ND		
exo-THC	ND	ND		
Total	98.2	982	0%	Cannabinoids (wt%) 97.8%
Max THC	ND	ND		Limit of Quantitation (LOQ) = 0.0250 wt%
Max CBD	97.8	978		Limit of Detection (LOD) = 0.0083 wt%

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: MAX THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND=None detected above the limits of detection (LOD), which is one third of Limit of Quantification (LOQ). For values reported as "<LOQ", the estimated value is included in the calculated Total.

END OF REPORT

Oregon Vitality LLC

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Bend, OR 97703

Client Sample ID: 0005-RK-A JCA from Hemp Matured Stalks

PAL Sample ID: P210192-01

Report Number: P210192

Report Date: March 02, 2021

Client Project ID: 20HME-508-001

Sample Date: 02/23/2021

Received Date: 02/23/2021

Extraction Date: 02/24/2021

Certificate of Analysis

Results Summary

Analyte	Amount Detected	Limit of Quantitation
Pesticides	ND	See COA

Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes	Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes
JASBC 69(3):121-126, 2011 (GC-MS/MS)									
02/26/2021	a-BHC	ND	0.20		02/26/2021	Aldrin	ND	0.20	
02/26/2021	b-BHC	ND	0.20		02/26/2021	Benfluralin	ND	0.20	
02/26/2021	Bolstar	ND	0.20		02/26/2021	Bromopropylate	ND	0.20	
02/26/2021	Captan	ND	4.0		02/26/2021	Chlordane	ND	0.20	
02/26/2021	Chlorfenapyr	ND	0.20		02/26/2021	Chloroneb	ND	0.20	
02/26/2021	Chlorothalonil	ND	0.20		02/26/2021	Chlorpropham	ND	0.20	
02/26/2021	Chlorpyrifos	ND	0.20		02/26/2021	Chlorpyrifos-methyl	ND	0.20	
02/26/2021	cis-Nonachlor	ND	0.20		02/26/2021	Cyfluthrin	ND	1.0	
02/26/2021	Cypermethrin	ND	1.0		02/26/2021	Dacthal	ND	0.20	
02/26/2021	d-BHC	ND	0.20		02/26/2021	Deltamethrin	ND	1.0	
02/26/2021	Diazinon	ND	0.20		02/26/2021	Dichlobenil	ND	0.20	
02/26/2021	Dichlorofenthion	ND	0.20		02/26/2021	Dichlorvos	ND	0.20	
02/26/2021	Diclofop-methyl	ND	0.20		02/26/2021	Dicloran	ND	1.0	
02/26/2021	Dicofol	ND	0.20		02/26/2021	Diphenamid	ND	0.20	
02/26/2021	Dithiopyr	ND	0.20		02/26/2021	Esfenvalerate	ND	0.20	
02/26/2021	Ethalfuralin	ND	0.20		02/26/2021	Ethofumesate	ND	0.20	
02/26/2021	Ethoprophos	ND	0.20		02/26/2021	Ethoxyquin	ND	0.20	
02/26/2021	Etoxazole	ND	0.20		02/26/2021	Etridiazole	ND	0.20	
02/26/2021	Fenarimol	ND	0.20		02/26/2021	Fenvalerate	ND	0.20	
02/26/2021	Fipronil	ND	0.20		02/26/2021	Fludioxonil	ND	0.20	
02/26/2021	Flutolanil	ND	0.20		02/26/2021	g-BHC	ND	0.20	
02/26/2021	Heptachlor	ND	0.20		02/26/2021	Heptachlor epoxide	ND	0.20	
02/26/2021	Hexachlorobenzene	ND	0.20		02/26/2021	Kresoxim-methyl	ND	0.20	
02/26/2021	lambda-Cyhalothrin	ND	0.59		02/26/2021	Malathion	ND	0.20	
02/26/2021	Mefenoxam	ND	0.20		02/26/2021	Metolachlor	ND	0.20	
02/26/2021	MGK-264	ND	0.20		02/26/2021	Myclobutanil	ND	0.20	



Oregon Vitality LLC

Bend, OR 97703

Client Sample ID: 0005-RK-A JCA from Hemp Matured Stalks

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Report Date: March 02, 2021

Client Project ID: 20HME-508-001

Sample Date: 02/23/2021

Received Date: 02/23/2021

Extraction Date: 02/24/2021

Certificate of Analysis (Continued)

Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes	Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes
JASBC 69(3):121-126, 2011 (LC-MS/MS) (Continued)									
02/25/2021	Fenamiphos sulfone	ND	0.20		02/25/2021	Fenamiphos sulfoxide	ND	0.20	
02/25/2021	Fenazaquin	ND	0.20		02/25/2021	Fenbuconazole	ND	0.20	
02/25/2021	Fenoxycarb	ND	0.20		02/25/2021	Fenpropathrin	ND	0.20	
02/25/2021	Fenpyroximate	ND	0.20		02/25/2021	Flonicamid	ND	1.0	
02/25/2021	Fluometuron	ND	0.20		02/25/2021	Fluopicolide	ND	0.20	
02/25/2021	Fluopyram	ND	0.20		02/25/2021	Fluoxastrobin	ND	0.20	
02/25/2021	Flupyradifurone	ND	0.20		02/25/2021	Fluridone	ND	0.20	
02/25/2021	Flutriafol	ND	0.20		02/25/2021	Fluvalinate	ND	0.20	
02/25/2021	Fluxapyroxad	ND	0.20		02/25/2021	Formetanate HCl	ND	0.20	
02/25/2021	Hexazinone	ND	0.20		02/25/2021	Hexythiazox	ND	0.20	
02/25/2021	Imazalil	ND	0.20		02/25/2021	Imidacloprid	ND	0.20	
02/25/2021	Indaziflam	ND	0.20		02/25/2021	Indoxacarb	ND	0.20	
02/25/2021	Isoxaben	ND	0.20		02/25/2021	Linuron	ND	0.20	
02/25/2021	Malaoxon	ND	0.20		02/25/2021	Mandipropamid	ND	0.20	
02/25/2021	Metconazole	ND	0.20		02/25/2021	Methamidophos	ND	0.80	
02/25/2021	Methidathion	ND	0.20		02/25/2021	Methiocarb	ND	0.20	
02/25/2021	Methomyl	ND	0.20		02/25/2021	Methoxyfenozide	ND	0.20	
02/25/2021	Metrafenone	ND	0.20		02/25/2021	Mevinphos	ND	0.20	
02/25/2021	Norflurazon	ND	0.20		02/25/2021	Novaluron	ND	0.20	
02/25/2021	Omethoate	ND	0.20		02/25/2021	Oxadixyl	ND	1.0	
02/25/2021	Oxamyl	ND	0.20		02/25/2021	Oxydemeton-Methyl	ND	0.20	
02/25/2021	Penthiopyrad	ND	0.20		02/25/2021	Phorate Sulfone	ND	1.0	
02/25/2021	Phorate Sulfoxide	ND	0.20		02/25/2021	Phosalone	ND	0.20	
02/25/2021	Phosmet	ND	0.20		02/25/2021	Phosphamidon	ND	0.20	
02/25/2021	Piperonyl Butoxide	ND	1.0		02/25/2021	Pirimiphos-methyl	ND	0.20	
02/25/2021	Prallethrin	ND	0.20		02/25/2021	Prometon	ND	0.20	
02/25/2021	Prometryn	ND	0.20		02/25/2021	Propamocarb	ND	0.20	
02/25/2021	Propargite	ND	0.20		02/25/2021	Propiconazole	ND	0.40	
02/25/2021	Propoxur	ND	0.20		02/25/2021	Pymetrozine	ND	0.20	
02/25/2021	Pyraclostrobin	ND	0.20		02/25/2021	Pyraflufen-ethyl	ND	0.20	
02/25/2021	Pyrethrin	ND	1.0		02/25/2021	Pyridaben	ND	0.20	
02/25/2021	Pyrimethanil	ND	0.20		02/25/2021	Rotenone	ND	0.20	
02/25/2021	Sethoxydim	ND	0.40		02/25/2021	Siduron	ND	0.20	
02/25/2021	Simazine	ND	0.20		02/25/2021	Simetryn	ND	0.20	
02/25/2021	Spinetoram	ND	0.20		02/25/2021	Spinosad	ND	0.20	
02/25/2021	Spiromesifen	ND	0.40		02/25/2021	Spirotetramat	ND	0.20	



Rick Jordan, Laboratory Director

Oregon Vitality LLC

Bend, OR 97703

Client Sample ID: 0005-RK-A JCA from Hemp Matured Stalks

PAL Sample ID: P210192-01

Report Number: P210192

Report Date: March 02, 2021

Client Project ID: 20HME-508-001

Sample Date: 02/23/2021

Received Date: 02/23/2021

Extraction Date: 02/24/2021

Certificate of Analysis (Continued)

Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes	Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes
JASBC 69(3):121-126, 2011 (GC-MS/MS) (Continued)									
02/26/2021	o-Phenylphenol	ND	0.40		02/26/2021	Oxadiazon	ND	0.20	
02/26/2021	Oxyfluorfen	ND	0.40		02/26/2021	p,p'-DDD	ND	0.20	
02/26/2021	p,p'-DDE	ND	0.20		02/26/2021	p,p'-DDT	ND	0.20	
02/26/2021	Paclobutrazol	ND	0.20		02/26/2021	Parathion-methyl	ND	0.20	
02/26/2021	Pendimethalin	ND	0.20		02/26/2021	Pentachlorophenyl methyl sulfide	ND	0.20	
02/26/2021	Permethrin	ND	0.40		02/26/2021	Pirimicarb	ND	0.20	
02/26/2021	Procymidone	ND	0.20		02/26/2021	Prodiamine	ND	0.40	
02/26/2021	Pronamide	ND	0.20		02/26/2021	Pyriproxyfen	ND	0.20	
02/26/2021	Quinoxifen	ND	0.20		02/26/2021	Spirodiclofen	ND	0.20	
02/26/2021	Tetraconazole	ND	0.20		02/26/2021	trans-Nonachlor	ND	0.20	
02/26/2021	Trifluralin	ND	0.20						
JASBC 69(3):121-126, 2011 (LC-MS/MS)									
02/25/2021	3-Hydroxycarbofuran	ND	0.20		02/25/2021	Abamectin	ND	1.0	
02/25/2021	Acephate	ND	0.80		02/25/2021	Acequinocyl-Hydroxy	ND	1.0	
02/25/2021	Acetamiprid	ND	0.20		02/25/2021	Aldicarb	ND	0.20	
02/25/2021	Aldicarb Sulfone	ND	0.20		02/25/2021	Aldicarb Sulfoxide	ND	0.20	
02/25/2021	Ametoctradin	ND	0.20		02/25/2021	Atrazine	ND	0.20	
02/25/2021	Azinphos-methyl	ND	0.40		02/25/2021	Azoxystrobin	ND	0.20	
02/25/2021	Bendiocarb	ND	0.20		02/25/2021	Bensulide	ND	0.20	
02/25/2021	Bifenazate	ND	0.20		02/25/2021	Bifenthrin	ND	0.20	
02/25/2021	Boscalid	ND	0.20		02/25/2021	Bromacil	ND	0.20	
02/25/2021	Carbaryl	ND	0.20		02/25/2021	Carbendazim	ND	0.20	
02/25/2021	Carbofuran	ND	0.20		02/25/2021	Carfentrazone-ethyl	ND	0.20	
02/25/2021	Chlorantraniliprole	ND	0.20		02/25/2021	Clethodim	ND	0.40	
02/25/2021	Clofentezine	ND	0.20		02/25/2021	Clothianidin	ND	0.20	
02/25/2021	Cyanazine	ND	0.20		02/25/2021	Cyantraniliprole	ND	0.20	
02/25/2021	Cyazofamid	ND	0.20		02/25/2021	Cycloate	ND	0.40	
02/25/2021	Cyflufenamid	ND	0.20		02/25/2021	Cyflumetofen	ND	0.20	
02/25/2021	Cymoxanil	ND	0.20		02/25/2021	Daminozide	ND	1.0	
02/25/2021	DCPMU	ND	0.20		02/25/2021	Diazoxon	ND	0.20	
02/25/2021	Diflubenzuron	ND	0.20		02/25/2021	Dimethoate	ND	0.20	
02/25/2021	Dimethomorph	ND	0.20		02/25/2021	Dinotefuran	ND	0.20	
02/25/2021	Disulfoton sulfone	ND	0.20		02/25/2021	Diuron	ND	0.20	
02/25/2021	d-Phenothrin	ND	0.50		02/25/2021	Etofenprox	ND	0.20	
02/25/2021	Famphur	ND	0.20		02/25/2021	Fenamidone	ND	0.20	



Oregon Vitality LLC

Bend, OR 97703

Client Sample ID: 0005-RK-A JCA from Hemp Matured Stalks

PAL Sample ID: P210192-01

Report Number: P210192

Report Date: March 02, 2021

Client Project ID: 20HME-508-001

Sample Date: 02/23/2021

Received Date: 02/23/2021

Extraction Date: 02/24/2021

Certificate of Analysis (Continued)

Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes	Analysis Date	Analyte	Amount Detected	LOQ (mg/kg)	Notes
JASBC 69(3):121-126, 2011 (LC-MS/MS) (Continued)									
02/25/2021	Spiroxamine	ND	0.20		02/25/2021	Sulfoxaflor	ND	0.20	
02/25/2021	Tebuconazole	ND	0.20		02/25/2021	Tebufenozide	ND	0.20	
02/25/2021	Tebuthiuron	ND	0.20		02/25/2021	Terbuthylazine	ND	0.20	
02/25/2021	Thiabendazole	ND	0.20		02/25/2021	Thiacloprid	ND	0.20	
02/25/2021	Thiamethoxam	ND	0.20		02/25/2021	Thiobencarb	ND	0.20	
02/25/2021	Thiodicarb	ND	0.20		02/25/2021	Tolfenpyrad	ND	0.20	
02/25/2021	Triadimefon	ND	0.20		02/25/2021	Triadimenol	ND	0.40	
02/25/2021	Trifloxystrobin	ND	0.20		02/25/2021	Triflumizole	ND	0.20	

Notes and Definitions

Notes	Definition
LOQ	Limit of Quantitation
ND	Not Detected
*	Not included under current scope of accreditation

The results contained in this report relate only to the items tested.
 The results reflect the condition of the samples as received by PAL.
 Samples will be stored for a minimum of 60 days after the final report is issued, as described in our Quality Manual.
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 PAL is accredited to ISO/IEC 17025:2017 Standard, by ANAB, Accreditation #AT-2875, Testing.



Rick Jordan, Laboratory Director