

PharmLabs San Diego Certificate of Analysis

3421 Hancock St, Second Floor, San Diego, CA 92110 | License: C8-0000098-LIC
 ISO/IEC 17025:2017 Certification L17-427-1 | Accreditation #85368



Sample **01SDT224_CRD_CRYSTAL RES. CBD**

Sample ID SD230412-042 (72070)	Matrix Concentrate (Inhalable Cannabis Good)
Tested for The Hemp Collect	
Sampled -	Received Apr 12, 2023
Analyses executed CAN+, RES, MIBIG, MTO, PES, HME, FVI	Reported Apr 24, 2023

CAN+ - Cannabinoids Analysis

Analyzed Apr 24, 2023 | Instrument HPLC-VWD | Method SOP-001
 The expanded Uncertainty of the Cannabinoid analysis is approximately 7.806% at the 95% Confidence Level

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
Cannabidiol (CBD)	0.039	0.16	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	ND	ND
Cannabigerol Acid (CBGA)	0.001	0.16	ND	ND
Cannabigerol (CBG)	0.001	0.16	0.77	7.73
Cannabidiol (CBD)	0.001	0.16	49.16	491.56
Tetrahydrocannabinol (THCV)	0.001	0.16	ND	ND
Cannabinol (CBN)	0.001	0.16	2.29	22.93
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	ND	ND
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	ND	ND
Cannabicyclol (CBL)	0.002	0.16	0.76	7.64
Cannabichromene (CBC)	0.002	0.16	5.71	57.09
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	ND	ND
Total THC (THCa + Δ9THC)			ND	ND
Total THC + Δ8THC (THCa + Δ9THC + Δ8THC)			ND	ND
Total CBD (CBDA + CBD)			49.16	491.56
Total CBG (CBGA + CBG)			0.77	7.73
Total Cannabinoids			58.70	586.95

HME - Heavy Metals Detection Analysis

Analyzed Apr 14, 2023 | Instrument ICP/MSMS | Method SOP-005

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Arsenic (As)	0.0002	0.0005	ND	0.2	Cadmium (Cd)	3.0e-05	0.0005	ND	0.2
Mercury (Hg)	1.0e-05	0.0001	ND	0.1	Lead (Pb)	1.0e-05	0.00125	ND	0.5

MIBIG - Microbial Testing Analysis

Analyzed Apr 17, 2023 | Instrument qPCR and/or Plating | Method SOP-007

Analyte	Result CFU/g	Limit	Analyte	Result CFU/g	Limit
Shiga toxin-producing Escherichia Coli	ND	ND per 1 gram	Salmonella spp.	ND	ND per 1 gram
Aspergillus fumigatus	ND	ND per 1 gram	Aspergillus flavus	ND	ND per 1 gram
Aspergillus niger	ND	ND per 1 gram	Aspergillus terreus	ND	ND per 1 gram

MTO - Mycotoxin Testing Analysis

Analyzed Apr 14, 2023 | Instrument LC/MSMS | Method SOP-004

Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg	Analyte	LOD ug/kg	LOQ ug/kg	Result ug/kg (ppb)	Limit ug/kg
Ochratoxin A	5.0	20.0	ND	20	Aflatoxin B1	2.5	5.0	ND	-
Aflatoxin B2	2.5	5.0	ND	-	Aflatoxin G1	2.5	5.0	ND	-
Aflatoxin G2	2.5	5.0	ND	-	Total Aflatoxins	10.0	20.0	ND	20

UI Not Identified
 ND Not Detected
 N/A Not Applicable
 NT Not Reported
 LOD Limit of Detection
 LOQ Limit of Quantification
 <LOQ Detected
 >ULOL Above upper limit of linearity
 CFU/g Colony Forming Units per 1 gram
 TNTC Too Numerous to Count



Scan the QR code to verify authenticity.

Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager
 Mon, 24 Apr 2023 14:10:27 -0700

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PES - Pesticides Screening Analysis

Analyzed Apr 14, 2023 | Instrument LC/MSMS GC/MSMS | Method SOP-003

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Aldicarb	0.0078	0.02	ND	0.0078	Carbofuran	0.01	0.02	ND	0.01
Dimethoate	0.01	0.02	ND	0.01	Etofenprox	0.02	0.1	ND	0.02
Fenoxycarb	0.01	0.02	ND	0.01	Thiachloprid	0.01	0.02	ND	0.01
Daminozide	0.01	0.03	ND	0.01	Dichlorvos	0.02	0.07	ND	0.02
Imazail	0.02	0.07	ND	0.02	Methiocarb	0.01	0.02	ND	0.01
Spiroxamine	0.01	0.02	ND	0.01	Coumaphos	0.01	0.02	ND	0.01
Fipronil	0.01	0.1	ND	0.01	Paclbutrazol	0.01	0.03	ND	0.01
Chlorpyrifos	0.01	0.04	ND	0.01	Ethoprophos (Prophos)	0.01	0.02	ND	0.01
Baygon (Propoxur)	0.01	0.02	ND	0.01	Chlordane	0.04	0.1	ND	0.04
Chlorfenapyr	0.03	0.1	ND	0.03	Methyl Parathion	0.02	0.1	ND	0.02
Mevinphos	0.05	0.08	ND	0.03	Abamectin	0.03	0.08	ND	0.1
Acephate	0.02	0.05	ND	0.1	Acetamidprid	0.01	0.05	ND	0.1
Azoxystrobin	0.01	0.02	ND	0.1	Bifenazate	0.01	0.05	ND	0.1
Bifenthrin	0.02	0.35	ND	3	Boscalid	0.01	0.03	ND	0.1
Carbaryl	0.01	0.02	ND	0.5	Chlorantraniliprole	0.01	0.04	ND	10
Clofentezine	0.01	0.03	ND	0.1	Diazinon	0.01	0.02	ND	0.1
Dimethomorph	0.02	0.06	ND	2	Etoxazole	0.01	0.05	ND	0.1
Fenpyroximate	0.02	0.1	ND	0.1	Fonicamid	0.01	0.02	ND	0.1
Fludioxonil	0.01	0.05	ND	0.1	Hexythiazox	0.01	0.03	ND	0.1
Imidacloprid	0.01	0.05	ND	5	Kresoxim-methyl	0.01	0.03	ND	0.1
Malathion	0.01	0.05	ND	0.5	Metalaxyl	0.01	0.02	ND	2
Methomyl	0.02	0.05	ND	1	Myclobutanil	0.02	0.07	ND	0.1
Naled	0.01	0.02	ND	0.1	Oxamyl	0.01	0.02	ND	0.5
Permethrin	0.01	0.02	ND	0.5	Phosmet	0.01	0.02	ND	0.1
Piperonyl Butoxide	0.02	0.06	ND	3	Propiconazole	0.03	0.08	ND	0.1
Prallethrin	0.02	0.05	ND	0.1	Pyrethrin	0.05	0.41	ND	0.5
Pyridaben	0.02	0.07	ND	0.1	Spinosad A	0.01	0.05	ND	0.1
Spinosad D	0.01	0.05	ND	0.1	Spiromesifen	0.02	0.06	ND	0.1
Spirotetramat	0.01	0.02	ND	0.1	Tebuconazole	0.01	0.02	ND	0.1
Thiamethoxam	0.01	0.02	ND	5	Trifloxystrobin	0.01	0.02	ND	0.1
Acequinocyl	0.02	0.09	ND	0.1	Captan	0.01	0.02	ND	0.7
Cypermethrin	0.02	0.1	ND	1	Cyfluthrin	0.04	0.1	ND	2
Fenhexamid	0.02	0.07	ND	0.1	Spinetoram J.L	0.02	0.07	ND	0.1
Pentachloronitrobenzene	0.01	0.1	ND	0.1					

RES - Residual Solvents Testing Analysis

Analyzed Apr 20, 2023 | Instrument GC/FID with Headspace Analyzer | Method SOP-006

Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g	Analyte	LOD ug/g	LOQ ug/g	Result ug/g	Limit ug/g
Propane (Prop)	0.4	40.0	ND	40.0	Butane (But)	0.4	40.0	ND	40.0
Methanol (Metha)	0.4	40.0	ND	40.0	Ethylene Oxide (EthOx)	0.4	0.8	ND	0.8
Pentane (Pen)	0.4	40.0	ND	40.0	Ethanol (Ethan)	0.4	40.0	ND	40.0
Ethyl Ether (EthEt)	0.4	40.0	ND	40.0	Acetone (Acet)	0.4	40.0	<LOQ	40.0
Isopropanol (2-Pro)	0.4	40.0	ND	40.0	Acetonitrile (Acetonit)	0.4	40.0	ND	40.0
Methylene Chloride (MetCh)	0.4	0.8	ND	0.8	Hexane (Hex)	0.4	40.0	ND	40.0
Ethyl Acetate (EthAc)	0.4	40.0	ND	40.0	Chloroform (Clo)	0.4	0.8	ND	0.8
Benzene (Ben)	0.4	0.8	ND	0.8	1,2-Dichloroethane (12-Dich)	0.4	0.8	ND	0.8
Heptane (Hep)	0.4	40.0	ND	40.0	Trichloroethylene (TriClIEth)	0.4	0.8	ND	0.8
Toluene (Toluene)	0.4	40.0	ND	40.0	Xylenes (Xyl)	0.4	40.0	ND	40.0

FVI - Filth & Foreign Material Inspection Analysis

Analyzed Apr 13, 2023 | Instrument Microscope | Method SOP-010

Analyte / Limit	Result	Analyte / Limit	Result
> 1/4 of the total sample area covered by sand, soil, cinders, or dirt	ND	> 1/4 of the total sample area covered by mold	ND
> 1 insect fragment, 1 hair, or 1 count mammalian excreta per 3g	ND	> 1/4 of the total sample area covered by an imbedded foreign material	ND

UI Not Identified
 ND Not Detected
 N/A Not Applicable
 NT Not Reported
 LOD Limit of Detection
 LOQ Limit of Quantification
 <LOQ Detected
 >ULOL Above upper limit of linearity
 CFU/g Colony Forming Units per 1 gram
 TNTC Too Numerous to Count



Scan the QR code to verify authenticity.

Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager
 Mon, 24 Apr 2023 14:10:27 -0700

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



Report Number: 23-000420/D005.R002
Report Date: 01/18/2023
ORELAP#: OR100028
Purchase Order:
Received: 01/10/23 16:50

This is an amended version of report# 23-000420/D005.R001.

Reason: Updated reporting units.

Customer: IHC LLC
Product identity: Live CBD CML
Client/Metric ID: .
Laboratory ID: 23-000420-0003

Summary

Potency:

Analyte per 18g	Result	Limits	Units	Status	
CBD per 18g	39.4		mg/18g		CBD-Total per Serving Size 42.5 mg/18g
CBD-A per 18g	3.53		mg/18g		
					THC-Total per Serving Size <LOQ
					(Reported in milligrams per serving)

Metals:

Less than LOQ for all analytes.



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Purchase Order:
Received: 01/10/23 16:50

Customer: IHC LLC
 825 NW 16th Ave
 Portland Oregon 97209
 United States of America (USA)

Product identity: Live CBD CML
Client/Metric ID: .
Sample Date:
Laboratory ID: 23-000420-0003
Evidence of Cooling: No
Temp: 20 °C
Relinquished by: Client
Serving Size #1: 18 g



Sample Results

Potency per 18g		Method: J AOAC 2015 V98-6 (mod) ^b	Units mg/se	Batch: 2300415	Analyze: 1/13/23 12:04:00 AM
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 18g	< LOQ		mg/18g	0.0331	
CBC-A per 18g	< LOQ		mg/18g	0.0331	
CBC-Total per 18g	< LOQ		mg/18g	0.0621	
CBD per 18g	39.4		mg/18g	0.596	
CBD-A per 18g	3.53		mg/18g	0.596	
CBD-Total per 18g	42.5		mg/18g	1.12	
CBDV per 18g	< LOQ		mg/18g	0.0331	
CBDV-A per 18g	< LOQ		mg/18g	0.0331	
CBDV-Total per 18g	< LOQ		mg/18g	0.0618	
CBE per 18g	< LOQ		mg/18g	0.0331	
CBG per 18g	< LOQ		mg/18g	0.0331	
CBG-A per 18g	< LOQ		mg/18g	0.0331	
CBG-Total per 18g	< LOQ		mg/18g	0.0618	
CBL per 18g	< LOQ		mg/18g	0.0331	
CBL-A per 18g	< LOQ		mg/18g	0.0331	
CBL-Total per 18g	< LOQ		mg/18g	0.0621	
CBN per 18g	< LOQ		mg/18g	0.0331	
CBT per 18g	< LOQ		mg/18g	0.0331	
Δ8-THCV per 18g	< LOQ		mg/18g	0.0331	
Δ10-THC-9R per 18g	< LOQ		mg/18g	0.0331	
Δ8-THC per 18g	< LOQ		mg/18g	0.0331	
Δ9-THC per 18g	< LOQ		mg/18g	0.596	
exo-THC per 18g	< LOQ		mg/18g	0.0331	
THC-A per 18g	< LOQ		mg/18g	0.596	
THC-Total per 18g	< LOQ		mg/18g	1.12	
THCV per 18g	< LOQ		mg/18g	0.0331	
THCV-A per 18g	< LOQ		mg/18g	0.0331	
THCV-Total per 18g	< LOQ		mg/18g	0.0622	
Total Cannabinoids per 18g	43.5		mg/18g		



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Received: 01/10/23 16:50

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.0175	2300511	01/17/23 AOAC 2013.06 (mod.) ^P	pass	
Cadmium	< LOQ	0.200	mg/kg	0.0175	2300511	01/17/23 AOAC 2013.06 (mod.) ^P	pass	
Lead	< LOQ	0.500	mg/kg	0.0175	2300511	01/17/23 AOAC 2013.06 (mod.) ^P	pass	
Mercury	< LOQ	0.100	mg/kg	0.00874	2300511	01/17/23 AOAC 2013.06 (mod.) ^P	pass	

Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aflatoxin B2 [‡]	< LOQ		µg/kg	5.00	2300451	01/16/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Aflatoxin B1 [‡]	< LOQ		µg/kg	5.00	2300451	01/16/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Aflatoxin G1 [‡]	< LOQ		µg/kg	5.00	2300451	01/16/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Aflatoxin G2 [‡]	< LOQ		µg/kg	5.00	2300451	01/16/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Ochratoxin A [‡]	< LOQ	20.0	µg/kg	5.00	2300451	01/16/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Total Aflatoxins [‡]	0.000	20.0	µg/kg	20.0		01/17/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	



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Report Number: 23-000420/D005.R002
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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Ⓟ = ISO/IEC 17025:2017 accredited method.

Ⓜ = TNI accredited analyte.

Units of Measure

g = g

µg/kg = Micrograms per kilogram = parts per billion (ppb)

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

mg/18g = Milligram per 18g

% = Percentage of sample

% wt = µg/g divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



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Hemp / Cannabis Usable / Extract / Finished Products
Chain of Custody Record

Revision: 4.00 Control#: C7025 Rev 02/24/2021 Eff: 09/04/2021
 ORLAP ID: OR100028

Company: The Hemp Collect Contact: kyle@thehempcollect.com Street: 431 NW Flanders St. City: Portland State: OR Zip: 97209 <input checked="" type="checkbox"/> Email Results: dropbox (IHC) F#: (b1) 608164 Fx Results: (____) Billing If different: joel@thehempcollect.com				Analysis Requested Pesticides - 08/58 components Pesticide Multi-Residue - 379 components POTENCY Residual Solvents Moisture & Water Activity Terpenes Microbial Yeast and Mold Microbial Col and Total Coliforms Heavy Metals Microtox Other:								PO Number: _____ Project Number: _____ Project Name: _____ Custom Reporting: _____ Report to State: <input type="checkbox"/> METRC or <input type="checkbox"/> Other: _____ Turnaround time: <input checked="" type="checkbox"/> 5 Business Day Standard Turnaround <input type="checkbox"/> 3 Business Day Rush Turnaround* <input type="checkbox"/> 2 Business Day Rush Turnaround* <small>*Check for availability</small>					
Lab ID	Client Sample Identification	Date	Time	Pesticides - 08/58 components	Pesticide Multi-Residue - 379 components	POTENCY	Residual Solvents	Moisture & Water Activity	Terpenes	Microbial Yeast and Mold	Microbial Col and Total Coliforms	Heavy Metals	Microtox	Other	Sample Type *	Weight (Units)	Comments/Memo ID
1	Live DB VAP - WB				X				X						C		Samples #1 & #2: Alternate Client name: ATLrx
2	Live DB SGR - SP					X			X						C		
3	Bubba Kush DB Preroll			X						X		X			V		Sample #3: Alternate Client name: KOI CBD
4	Live CBD CML					X						X	X		E		
5	Live DB CML					X						X	X		E		
6	Live DB CML					X						X	X		E		
7	Live HHC VAP_AT_CJ					X									C		
8	Live HHC VAP_DT_PJ					X									C		
9	Live HHC VAP_KO_PK					X									C		
10																	
Received By:		Date	Time	Received By:		Date	Time	Lab Use Only:									
Beth Griggs		1/10	4:30 PM	DS		1/10/23	16:50	<input type="checkbox"/> Shipped Via: _____ or <input checked="" type="checkbox"/> Client drop Evidence of cooling: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No - Temp (°C): <u>20.0°C</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: _____ Freezing storage: _____									

* - Sample Type Codes: Vegetation (V) ; Inflorescence (I) ; Extract/Concentrate (C) ; Texture/Typical (T) ; Edible (E) ; Beverage (B)

Sample collected at Columbia Laboratories with testing requirements constitute an agreement for services to accompany with the carrying terms of service associated with this COC. By signing "Received By" you are agreeing to these terms.
 12423 NE Whitaker Way
 Portland, OR 97230
 P: (503) 254-1794 | Fax: (503) 254-1452
 Page _____ of _____
 columbia@colcolumbiainc.com
 (503) 254-1794



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Portland, OR 97230
503-254-1794



Report Number: 23-000420/D005.R002
Report Date: 01/18/2023
ORELAP#: OR100028
Purchase Order:
Received: 01/10/23 16:50

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2300415

Laboratory Control Sample

Analyte	LCS	Result	Spike	Units	% Rec	Limits	Evaluation	Notes
CBDVA	2	0.0333	0.033	%	99.7	80.0 - 120	Acceptable	
CBDV	2	0.0355	0.035	%	100	80.0 - 120	Acceptable	
CBE	2	0.0336	0.035	%	96.0	80.0 - 120	Acceptable	
CBDA	1	0.0334	0.032	%	104	90.0 - 110	Acceptable	
CBGA	1	0.0333	0.032	%	104	80.0 - 120	Acceptable	
CBG	1	0.0345	0.033	%	105	80.0 - 120	Acceptable	
CBD	1	0.0338	0.032	%	104	90.0 - 110	Acceptable	
THCV	2	0.0344	0.035	%	96.9	80.0 - 120	Acceptable	
d8THCV	2	0.0357	0.034	%	104	80.0 - 120	Acceptable	
THCVA	2	0.0329	0.033	%	99.6	80.0 - 120	Acceptable	
CBN	1	0.0355	0.034	%	105	80.0 - 120	Acceptable	
exo-THC	2	0.0325	0.032	%	100	80.0 - 120	Acceptable	
d9THC	1	0.0357	0.035	%	102	90.0 - 110	Acceptable	
d8THC	1	0.0319	0.033	%	95.1	90.0 - 110	Acceptable	
CBL	2	0.0350	0.035	%	101	80.0 - 120	Acceptable	
d10THC	1	0.0163	0.016	%	103	80.0 - 120	Acceptable	
CBG	2	0.0341	0.035	%	98.5	80.0 - 120	Acceptable	
THCA	1	0.0344	0.032	%	109	90.0 - 110	Acceptable	
CBCA	2	0.0339	0.034	%	98.7	80.0 - 120	Acceptable	
CBLA	2	0.0348	0.035	%	99.8	80.0 - 120	Acceptable	
CBT	2	0.0343	0.035	%	97.6	80.0 - 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBDV	<LOQ	0.003	%	< 0.003	Acceptable	
CBE	<LOQ	0.003	%	< 0.003	Acceptable	
CBDA	<LOQ	0.003	%	< 0.003	Acceptable	
CBGA	<LOQ	0.003	%	< 0.003	Acceptable	
CBG	<LOQ	0.003	%	< 0.003	Acceptable	
CBD	<LOQ	0.003	%	< 0.003	Acceptable	
THCV	<LOQ	0.003	%	< 0.003	Acceptable	
d8THCV	<LOQ	0.003	%	< 0.003	Acceptable	
THCVA	<LOQ	0.003	%	< 0.003	Acceptable	
CBN	<LOQ	0.003	%	< 0.003	Acceptable	
exo-THC	<LOQ	0.003	%	< 0.003	Acceptable	
d9THC	<LOQ	0.003	%	< 0.003	Acceptable	
d8THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBL	<LOQ	0.003	%	< 0.003	Acceptable	
d10THC	<LOQ	0.003	%	< 0.003	Acceptable	
CBG	<LOQ	0.003	%	< 0.003	Acceptable	
THCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBCA	<LOQ	0.003	%	< 0.003	Acceptable	
CBLA	<LOQ	0.003	%	< 0.003	Acceptable	
CBT	<LOQ	0.003	%	< 0.003	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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503-254-1794



Report Number: 23-000420/D005.R002
Report Date: 01/18/2023
ORELAP#: OR100028
Purchase Order:
Received: 01/10/23 16:50

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6		Batch ID: 2300415						
Sample Duplicate		Sample ID: 23-000165-0002						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	0.0083	0.0084	0.003	%	1.20	< 20	Acceptable	
CBE	0.0071	0.0070	0.003	%	2.10	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBG	0.0041	0.0039	0.003	%	3.10	< 20	Acceptable	
CBD	0.532	0.535	0.003	%	0.673	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBN	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	0.0219	0.0216	0.003	%	1.27	< 20	Acceptable	
d8THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
d10THC	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBC	0.0191	0.0193	0.003	%	0.576	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	0.0045	0.0049	0.003	%	7.64	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.003	%	NA	< 20	Acceptable	
CBT	0.0133	0.0127	0.003	%	4.93	< 20	Acceptable	

Abbreviations

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

Units of Measure:



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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.



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Report Number: 23-000691/D005.R000
Report Date: 01/24/2023
ORELAP#: OR100028
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Received: 01/17/23 14:16

Customer: IHC LLC
Product identity: 01LIR209_SG
Client/Metric ID: .
Laboratory ID: 23-000691-0008

Summary

Potency:

Analyte	Result (%)		
CBD-A	58.2		
CBC-A	3.16		
CBG-A	3.13		
THC-A	2.61		
CBD	1.35		
CBDV-A	1.04		
Δ9-THC	0.380		
CBG	0.252		
CBC	0.170		

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: 01/17/23 14:16

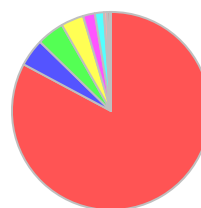
Customer: IHC LLC
 825 NW 16th Ave
 Portland Oregon 97209
 United States of America (USA)

Product identity: 01LIR209_SG
Client/Metric ID: .
Sample Date:
Laboratory ID: 23-000691-0008
Evidence of Cooling: No
Temp: 20 °C
Relinquished by: ramos



Sample Results

Potency	Method: J AOAC 2015 V98-6 (mod) ^p		Units %	Batch: 2300680	Analyze: 1/21/23 5:07:00 AM
Analyte	As Received	Dry weight	LOQ	Notes	
CBC	0.170		0.0715		
CBC-A	3.16		0.0715		
CBC-Total	2.94		0.134		
CBD	1.35		0.0715		
CBD-A	58.2		0.715		
CBD-Total	52.4		0.699		
CBDV	< LOQ		0.0715		
CBDV-A	1.04		0.0715		
CBDV-Total	0.901		0.133		
CBE	< LOQ		0.0715		
CBG	0.252		0.0715		
CBG-A	3.13		0.0715		
CBG-Total	3.00		0.133		
CBL	< LOQ		0.0715		
CBL-A	< LOQ		0.0715		
CBL-Total	< LOQ		0.134		
CBN	< LOQ		0.0715		
CBT	< LOQ		0.0715		
Δ10-THC-9R	< LOQ		0.0715		
Δ8-THC	< LOQ		0.0715		
Δ8-THCV	< LOQ		0.0715		
Δ9-THC	0.380		0.0715		
exo-THC	< LOQ		0.0715		
THC-A	2.61		0.0715		
THC-Total	2.67		0.134		
THCV	< LOQ		0.0715		
THCV-A	< LOQ		0.0715		
THCV-Total	< LOQ		0.133		
Total Cannabinoids	70.3				



- CBD-A
- CBC-A
- CBG-A
- THC-A
- CBD
- CBDV-A
- Δ9-THC
- CBG
- CBC



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Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2300531	01/21/23 AOAC 2014.05 (RAPID) [®]		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2300531	01/21/23 AOAC 2014.05 (RAPID) [®]		

Solvents Method: Residual Solvents by GC/MS[®] Units µg/g Batch 2300722 Analyze 01/24/23 12:13 PM

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-Dimethylbutane	< LOQ		30.0			2,2-Dimethylpropane (neo-pentane)	< 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	20.0	pass	
Hexanes (sum)	< LOQ	290	150	pass		Isopropyl acetate	< LOQ	5000	200	pass	
Isopropylbenzene (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)[®] Units mg/kg Batch 2300713 Analyze 01/24/23 10:07 AM

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

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic	< LOQ	0.200	mg/kg	0.0775	2300594	01/18/23 AOAC 2013.06 (mod.) [®]	pass	
Cadmium	< LOQ	0.200	mg/kg	0.0775	2300594	01/18/23 AOAC 2013.06 (mod.) [®]	pass	
Lead	< LOQ	0.500	mg/kg	0.0775	2300594	01/18/23 AOAC 2013.06 (mod.) [®]	pass	
Mercury	< LOQ	0.100	mg/kg	0.0388	2300594	01/18/23 AOAC 2013.06 (mod.) [®]	pass	



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Mycotoxins

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aflatoxin B2 [‡]	< LOQ		µg/kg	5.00	2300576	01/19/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Aflatoxin B1 [‡]	< LOQ		µg/kg	5.00	2300576	01/19/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Aflatoxin G1 [‡]	< LOQ		µg/kg	5.00	2300576	01/19/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Aflatoxin G2 [‡]	< LOQ		µg/kg	5.00	2300576	01/19/23 AOAC 2007.01 & EN 15662 (mod) ^P		
Ochratoxin A [‡]	< LOQ	20.0	µg/kg	5.00	2300576	01/19/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	
Total Aflatoxins [‡]	0.000	20.0	µg/kg	20.0		01/24/23 AOAC 2007.01 & EN 15662 (mod) ^P	pass	



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Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Ⓐ = ISO/IEC 17025:2017 accredited method.

Ⓜ = TNI accredited analyte.

Units of Measure

cfu/g = Colony forming units per gram

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

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

% = Percentage of sample

% 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: 23-000691/D005.R000
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Received: 01/17/23 14:16



Hemp / Cannabis Usable / Extract / Finished Products
Chain of Custody Record

Revision: 4.00 Control #: CPO23 Rev 02/24/2021 Eff: 03/04/2021
ORELAP ID: OR100028

Company: The Hemp Collect Contact: kyle@thehempcollect.com Street: 431 NW Flinders St. City: Portland State: Or Zip: 97209 Email Results: dropbox (IHC) Ph: <input checked="" type="checkbox"/> (503) 658-1044 <input type="checkbox"/> Fax Results: <input type="checkbox"/> Billing (if different): joe1@thehempcollect.com				Analysis Requested										PO Number: _____ Project Number: _____ Project Name: _____ Custom Reporting: _____ Report to State: <input type="checkbox"/> METRIC or <input type="checkbox"/> Other: _____ Turnaround time: <input checked="" type="checkbox"/> 5 Business Day Standard Turnaround <input type="checkbox"/> 3 Business Day Rush Turnaround* <input type="checkbox"/> 2 Business Day Flash Turnaround* <small>*Check for availability</small>			
Lab ID	Client Sample Identification	Date	Time	Pesticides - OR 19 compounds	Pesticide Multi-Residue - 179 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/Notes (U)
1	01LIRVAP200_SP					X									C		
2	01LIRVAP200_PB					X									C		
3	0107LIRVAP200_LJama					X									C		
4	0107LIRVAP200_OGK					X									C		
5	01020506LIRVAP200_TG					X									C		
6	01020506LIRVAP200_FV					X									C		
7	01LIR209_GJ			X	X	X			X	X	X	X			C		
8	01LIR209_SG			X	X	X			X	X	X	X			C		
9	01LIR209_LJama			X	X	X			X	X	X	X			C		
10	01LIR209_TG			X	X	X					X				C		
Relinquished By:		Date	Time	Relinquished By:		Date	Time	Lab Use Only:									
Kyle Farook		1/17	11:00 AM	<i>[Signature]</i>		1/17/23	11:10	<input type="checkbox"/> Shipped Via: _____ or <input type="checkbox"/> Client drop Evidence of cooling: <input type="checkbox"/> Yes <input type="checkbox"/> No - Temp (°C): <u>20.0</u> Sample in good condition: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Cash <input type="checkbox"/> Check <input type="checkbox"/> CC <input type="checkbox"/> Net: _____ Freezing storage: _____									
<i>[Signature]</i>		1/17	1:33 PM	RBS		01/17/23	1:36										

* - Sample Type Codes: Vegetation (V) ; Isolates (S) ; Extract/Concentrate (C) ; Texture/Typical (T) ; Gills (G) ; Beverage (B)

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services to be performed with the current version of service associated with this COC. By signing "Relinquished By" you are agreeing to these terms.

12423 NE Whitaker Way
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info@columbialaboratories.com

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503-254-1794



Report Number: 23-000691/D005.R000
Report Date: 01/24/2023
ORELAP#: OR100028
Purchase Order:
Received: 01/17/23 14:16

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6 Batch ID: 2300680

Laboratory Control Sample									
Analyte	LCS	Result	Spike	Units	% Rec	Limits		Evaluation	Notes
CBDVA	2	0.104	0.100	%	104	80.0	- 120	Acceptable	
CBDV	2	0.110	0.106	%	104	80.0	- 120	Acceptable	
CBE	2	0.108	0.105	%	103	80.0	- 120	Acceptable	
CBDA	1	0.0968	0.096	%	101	90.0	- 110	Acceptable	
CBGA	1	0.0973	0.096	%	101	80.0	- 120	Acceptable	
CBG	1	0.100	0.099	%	102	80.0	- 120	Acceptable	
CBD	1	0.0969	0.097	%	99.6	90.0	- 110	Acceptable	
THCV	2	0.109	0.106	%	102	80.0	- 120	Acceptable	
d8THCV	2	0.108	0.103	%	105	80.0	- 120	Acceptable	
THCVA	2	0.102	0.099	%	103	80.0	- 120	Acceptable	
CBN	1	0.104	0.102	%	102	80.0	- 120	Acceptable	
exo-THC	2	0.101	0.097	%	104	80.0	- 120	Acceptable	
d9THC	1	0.112	0.105	%	107	90.0	- 110	Acceptable	
d8THC	1	0.0971	0.100	%	96.7	90.0	- 110	Acceptable	
CBL	2	0.108	0.104	%	104	80.0	- 120	Acceptable	
9S-HHC	3	0.0995	0.100	%	99.5	80.0	- 120	Acceptable	
d10THC	1	0.0471	0.047	%	99.8	80.0	- 120	Acceptable	
CBG	2	0.107	0.104	%	103	80.0	- 120	Acceptable	
9R-HHC	3	0.0889	0.100	%	88.9	80.0	- 120	Acceptable	
THCA	1	0.0964	0.095	%	101	90.0	- 110	Acceptable	
CBCA	2	0.106	0.103	%	103	80.0	- 120	Acceptable	
CBLA	2	0.108	0.105	%	104	80.0	- 120	Acceptable	
d8THCO	3	0.104	0.100	%	104	80.0	- 120	Acceptable	
CBT	2	0.109	0.105	%	104	80.0	- 120	Acceptable	
d9THCO	3	0.110	0.100	%	110	80.0	- 120	Acceptable	

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes
CBDVA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBDV	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBE	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBDA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBGA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBG	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBD	<LOQ	0.0077	%	< 0.0077	Acceptable	
THCV	<LOQ	0.0077	%	< 0.0077	Acceptable	
d8THCV	<LOQ	0.0077	%	< 0.0077	Acceptable	
THCVA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBN	<LOQ	0.0077	%	< 0.0077	Acceptable	
exo-THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
d9THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
d8THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBL	<LOQ	0.0077	%	< 0.0077	Acceptable	
9S-HHC	<LOQ	0.0077	%	< 0.0077	Acceptable	
d10THC	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBG	<LOQ	0.0077	%	< 0.0077	Acceptable	
9R-HHC	<LOQ	0.0077	%	< 0.0077	Acceptable	
THCA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBCA	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBLA	<LOQ	0.0077	%	< 0.0077	Acceptable	
d8THCO	<LOQ	0.0077	%	< 0.0077	Acceptable	
CBT	<LOQ	0.0077	%	< 0.0077	Acceptable	
d9THCO	<LOQ	0.0077	%	< 0.0077	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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Report Number: 23-000691/D005.R000
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Received: 01/17/23 14:16

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6		Batch ID: 2300680						
Sample Duplicate		Sample ID: 23-000673-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	0.0236	0.0235	0.077	%	0.271	< 20	Acceptable	
CBDV	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBE	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBDA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBGA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBG	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBD	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
THCV	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
d8THCV	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
THCVA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBN	0.0340	0.0342	0.077	%	0.526	< 20	Acceptable	
exo-THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
d9THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
d8THC	0.189	0.172	0.077	%	9.34	< 20	Acceptable	
CBL	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
9S-HHC	39.6	38.5	0.077	%	2.70	< 20	Acceptable	
d10THC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBC	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
9R-HHC	36.9	35.2	0.077	%	4.96	< 20	Acceptable	
THCA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBCA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBLA	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
d8THCO	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
CBT	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	
d9THCO	<LOQ	<LOQ	0.077	%	NA	< 20	Acceptable	

Abbreviations

- ND - None Detected at or above MRL
- RPD - Relative Percent Difference
- LOQ - Limit of Quantitation
- R2 - Sample replicates RPD non-calculable, as only one replicate is within analytical range.

Units of Measure:



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503-254-1794



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Laboratory Quality Control Results

Residual Solvents				Batch ID: 2300722					
Method Blank				Laboratory Control Sample					
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		480	572	µg/g	83.9	60 - 120	
Isobutane	ND	< 200		623	731	µg/g	85.2	60 - 120	
Butane	ND	< 200		592	731	µg/g	81.0	60 - 120	
2,2-Dimethylpropane	ND	< 200		812	936	µg/g	86.8	60 - 120	
Methanol	ND	< 200		1410	1620	µg/g	87.0	60 - 120	
Ethylene Oxide	ND	< 30		49	56.2	µg/g	87.2	60 - 120	
2-Methylbutane	ND	< 200		1330	1610	µg/g	82.6	60 - 120	
Pentane	ND	< 200		1330	1600	µg/g	83.1	60 - 120	
Ethanol	ND	< 200		1400	1610	µg/g	87.0	70 - 130	
Ethyl Ether	ND	< 200		1340	1630	µg/g	82.2	60 - 120	
2,2-Dimethylbutane	ND	< 30		138	171	µg/g	80.7	60 - 120	
Acetone	ND	< 200		1340	1630	µg/g	82.2	60 - 120	
2-Propanol	ND	< 200		1440	1620	µg/g	88.9	60 - 120	
Ethyl Formate	ND	< 500		1380	1670	µg/g	82.6	70 - 130	
Acetonitrile	ND	< 100		409	498	µg/g	82.1	60 - 120	
Methyl Acetate	ND	< 500		1460	1730	µg/g	84.4	70 - 130	
2,3-Dimethylbutane	ND	< 30		135	171	µg/g	78.9	60 - 120	
Dichloromethane	ND	< 60		406	483	µg/g	84.1	60 - 120	
2-Methylpentane	ND	< 30		146	168	µg/g	86.9	60 - 120	
MTBE	ND	< 500		1520	1650	µg/g	92.1	70 - 130	
3-Methylpentane	ND	< 30		125	167	µg/g	74.9	60 - 120	
Hexane	ND	< 30		178	182	µg/g	97.8	60 - 120	
1-Propanol	ND	< 500		1420	1620	µg/g	87.7	70 - 130	
Methylethylketone	ND	< 500		1330	1620	µg/g	82.1	70 - 130	
Ethyl acetate	ND	< 200		1360	1610	µg/g	84.5	60 - 120	
2-Butanol	ND	< 200		1430	1600	µg/g	89.4	60 - 120	
Tetrahydrofuran	ND	< 100		397	483	µg/g	82.2	60 - 120	
Cyclohexane	ND	< 200		1300	1610	µg/g	80.7	60 - 120	
2-methyl-1-propanol	ND	< 500		1360	1620	µg/g	84.0	70 - 130	
Benzene	ND	< 1		4.42	5.02	µg/g	88.0	60 - 120	
Isopropyl Acetate	ND	< 200		1450	1620	µg/g	89.5	60 - 120	
Heptane	ND	< 200		1280	1610	µg/g	79.5	60 - 120	
1-Butanol	ND	< 500		1450	1630	µg/g	89.0	70 - 130	
Propyl Acetate	ND	< 500		1310	1610	µg/g	81.4	70 - 130	
1,4-Dioxane	ND	< 100		390	491	µg/g	79.4	60 - 120	
2-Ethoxyethanol	ND	< 30		296	181	µg/g	163.5	60 - 120	Q1
Methylisobutylketone	ND	< 500		1260	1620	µg/g	77.8	70 - 130	
3-Methyl-1-butanol	ND	< 500		1380	1630	µg/g	84.7	70 - 130	
Ethylene Glycol	ND	< 200		652	484	µg/g	134.7	60 - 120	Q1
Toluene	ND	< 100		373	485	µg/g	76.9	60 - 120	
Isobutyl Acetate	ND	< 500		1320	1630	µg/g	81.0	70 - 130	
1-Pentanol	ND	< 500		1330	1620	µg/g	82.1	70 - 130	
Butyl Acetate	ND	< 500		1280	1620	µg/g	79.0	70 - 130	
Ethylbenzene	ND	< 200		712	969	µg/g	73.5	60 - 120	
m,p-Xylene	ND	< 200		720	994	µg/g	72.4	60 - 120	
o-Xylene	ND	< 200		694	967	µg/g	71.8	60 - 120	
Cumene	ND	< 30		126	171	µg/g	73.7	60 - 120	
Anisole	ND	< 500		1120	1630	µg/g	68.7	70 - 130	Q6
DMSO	ND	< 500		2220	1680	µg/g	132.1	70 - 130	Q1
1,2-dimethoxyethane	ND	< 50		147	169	µg/g	87.0	70 - 130	
Triethylamine	ND	< 500		1340	1630	µg/g	82.2	70 - 130	
N,N-dimethylformamide	ND	< 150		573	482	µg/g	118.9	70 - 130	
N,N-dimethylacetamide	ND	< 150		533	510	µg/g	104.5	70 - 130	
Pyridine	ND	< 50		194	203	µg/g	95.6	70 - 130	
Sulfolane	ND	< 50		198	172	µg/g	115.1	70 - 130	
1,2-Dichloroethane	ND	< 1		0.857	1	µg/g	85.7	70 - 130	
Chloroform	ND	< 1		0.892	1	µg/g	89.2	70 - 130	
Trichloroethylene	ND	< 1		0.93	1	µg/g	93.0	70 - 130	
1,1-Dichloroethane	ND	< 1		0.899	1	µg/g	89.9	70 - 130	



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QC - Sample Duplicate		Sample ID: 23-000158-0002						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Oxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
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	
Toluene	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Sulfolane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
1,1-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
 RPD - Relative Percent Difference
 LOQ - Limit of Quantitation
 Q1 - Quality control result biased high. Only non-detect samples reported.
 Q6 - Quality control outside QC limits. Data acceptable based on remaining QC.

Units of Measure:

µg/g- Microgram per gram or ppm



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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.