# Ionization Labs

# Certification of Analysis

labservices@ionizationlabs.com
737.231.0772

Prepared For: RAZAD Enterprises LLC
Plano, TX 75024

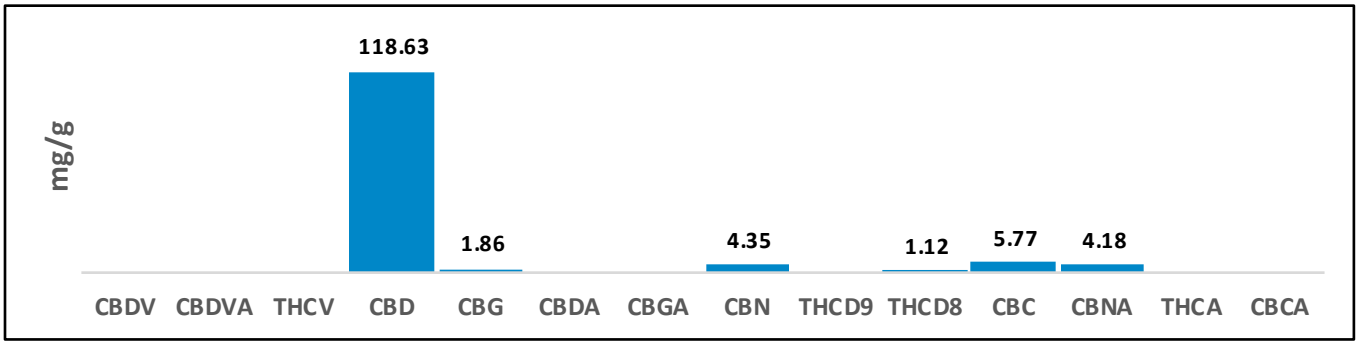
## Sample Information

| | | | |
|---|---|---|---|
| **Test Date:** | Nov 30, 2020, 11:39 AM | **Sample Type:** | Tincture |
| **Sample / Strain Name:** | ZAR 3000 mg FS TB | **IL Unique ID:** | ILCTS552 |
| **Lot # / Batch ID:** | 24K20154 | | |
| **Sample Description:** | Clear tincture oil | | |
| **Notes:** | Unit weight is 28 grams per 30mL bottle | | |
| **Analyst Name:** | Enrique Orci IV | **Reviewer Name:** | Ted Barton |
| **Analyst Signature:** | Enrique Orci IV | **Reviewer Signature:** | Ted Barton |

## Cannabinoid Potency and Profile

| Cannabinoid | Result (%) | Result (mg/g) | mg / bottle |
|---|---|---|---|
| CBDV | N/D | N/D | N/D |
| CBDVA | N/D | N/D | N/D |
| THCV | N/D | N/D | N/D |
| CBD | 11.86% | 118.63 | 3321.64 |
| CBG | 0.19% | 1.86 | 52.08 |
| CBDA | N/D | N/D | N/D |
| CBGA | N/D | N/D | N/D |
| CBN | 0.43% | 4.35 | 121.80 |
| THCD9 | N/D | N/D | N/D |
| THCD8 | 0.11% | 1.12 | 31.36 |
| CBC | 0.58% | 5.77 | 161.56 |
| CBNA | 0.42% | 4.18 | 117.04 |
| THCA | N/D | N/D | N/D |
| CBCA | N/D | N/D | N/D |
| **Totals** | **13.59%** | **135.91** | **3805.48** |

| | |
|---|---|
| **Total THC %** | **0.00%** |
| **Total THC mg / bottle** | **0.00** |
| **Total CBD %** | **11.86%** |
| **Total CBD mg / bottle** | **3321.64** |




THC Total = % of THCD9 + (% of THCA x 0.877), CBD Total = % of CBD + (% of CBDA x 0.877), CBG Total = % of CBG + (% of CBGA x 0.876), CBN Total = % of CBN + (% of CBNA x 0.876), CBC Total = % of CBC + (% of CBCA x 0.877), CBDV Total = % of CBDV + (% of CBDVA x 0.867), N/D = Not Detected

** Bud/Flower potency results are presented on a dry weight basis



**ISO 17025 Accredited**
**A2LA Certificate #: 5756.01**
**Texas Dept of Ag Account #: TL2020003**

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 20-011819/D02.R00
**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

**Customer:** Deschutes Labs
**Product identity:** 1060418-2020-TF-05-DIS-01
**Client/Metrc ID:** .
**Laboratory ID:** 20-011819-0002 **Sample Date:** 10/28/20 09:47

## Summary

**Potency:**

| Analyte | Result (%) |
|---|---|
| CBD | 72.7 |
| CBC | 3.45 |
| CBN | 3.39 |
| CBG† | 1.33 |
| CBDV† | 0.540 |
| CBL† | 0.265 |
| Δ9-THC | 0.211 |


CBD-Total 72.7%

THC-Total 0.211%

(Reported in percent of total sample)

**Residual Solvents:**

*All analytes passing and less than LOQ.*

**Pesticides:**

*All analytes passing and less than LOQ.*

**Metals:**

*Less than LOQ for all analytes.*

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**Purchase Order:**
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**Customer:** Deschutes Labs

**Product identity:** 1060418-2020-TF-05-DIS-01
**Client/Metrc ID:** .
**Sample Date:** 10/28/20 09:47
**Laboratory ID:** 20-011819-0002
**Relinquished by:** USPS
**Temp:** 18.6 °C

## Sample Results

Potency **Method** J AOAC 2015 V98-6 (mod) **Batch:** 2009201 **Analyze:** 11/3/20 10:46:00 PM

| Analyte | As Received | Dry weight | LOQ | Notes |
|---|---|---|---|---|
| CBC | 3.45 | | 0.0917 | |
| CBC-A† | < LOQ | | 0.0917 | |
| CBC-Total† | 3.45 | | 0.172 | |
| CBD | 72.7 | | 0.917 | |
| CBD-A | < LOQ | | 0.0917 | |
| CBD-Total | 72.7 | | 0.998 | |
| CBDV† | 0.540 | | 0.0917 | |
| CBDV-A† | < LOQ | | 0.0917 | |
| CBDV-Total† | 0.540 | | 0.171 | |
| CBG† | 1.33 | | 0.0917 | |
| CBG-A† | < LOQ | | 0.0917 | |
| CBG-Total | 1.33 | | 0.171 | |
| CBL† | 0.265 | | 0.0917 | |
| CBN | 3.39 | | 0.0917 | |
| Δ8-THC† | < LOQ | | 0.0917 | |
| Δ9-THC | 0.211 | | 0.0917 | |
| THC-A | < LOQ | | 0.0917 | |
| THC-Total | 0.211 | | 0.172 | |
| THCV† | < LOQ | | 0.0917 | |
| THCV-A† | < LOQ | | 0.0917 | |
| THCV-Total† | < LOQ | | 0.171 | |
| **Total Cannabinoids†** | 81.9 | | | |

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**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

Solvents **Method** EPA5021A **Units** µg/g **Batch** 2009095 **Analyze** 11/02/20 09:15 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 | |

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**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

Pesticides **Method** AOAC 2007.01 & EN 15662 (mod) **Units** mg/kg **Batch** 2009293 **Analyze** 11/06/20 12:15 PM

| Analyte | Result | Limits | LOQ | Status | Notes | Analyte | Result | Limits | LOQ | Status | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Abamectin | < LOQ | 0.50 | 0.250 | pass | | Acephate | < LOQ | 0.40 | 0.250 | pass | |
| Acequinocyl | < LOQ | 2.0 | 1.00 | pass | | Acetamiprid | < LOQ | 0.20 | 0.100 | pass | |
| Aldicarb | < LOQ | 0.40 | 0.200 | pass | | Azoxystrobin | < LOQ | 0.20 | 0.100 | pass | |
| Bifenazate | < LOQ | 0.20 | 0.100 | pass | | Bifenthrin | < LOQ | 0.20 | 0.100 | pass | |
| Boscalid | < LOQ | 0.40 | 0.200 | pass | | Carbaryl | < LOQ | 0.20 | 0.100 | pass | |
| Carbofuran | < LOQ | 0.20 | 0.100 | pass | | Chlorantraniliprole | < LOQ | 0.20 | 0.100 | pass | |
| Chlorfenapyr | < LOQ | 1.0 | 0.500 | pass | | Chlorpyrifos | < LOQ | 0.20 | 0.100 | pass | |
| Clofentezine | < LOQ | 0.20 | 0.100 | pass | | Cyfluthrin | < LOQ | 1.0 | 0.500 | pass | |
| Cypermethrin | < LOQ | 1.0 | 0.500 | pass | | Daminozide | < LOQ | 1.0 | 0.500 | pass | |
| Diazinon | < LOQ | 0.20 | 0.100 | pass | | Dichlorvos | < LOQ | 1.0 | 0.500 | pass | |
| Dimethoate | < LOQ | 0.20 | 0.100 | pass | | Ethoprophos | < LOQ | 0.20 | 0.100 | pass | |
| Etofenprox | < LOQ | 0.40 | 0.200 | pass | | Etoxazole | < LOQ | 0.20 | 0.100 | pass | |
| Fenoxycarb | < LOQ | 0.20 | 0.100 | pass | | Fenpyroximate | < LOQ | 0.40 | 0.200 | pass | |
| Fipronil | < LOQ | 0.40 | 0.200 | pass | | Flonicamid | < LOQ | 1.0 | 0.400 | pass | |
| Fludioxonil | < LOQ | 0.40 | 0.200 | pass | | Hexythiazox | < LOQ | 1.0 | 0.400 | pass | |
| Imazalil | < LOQ | 0.20 | 0.100 | pass | | Imidacloprid | < LOQ | 0.40 | 0.200 | pass | |
| Kresoxim-methyl | < LOQ | 0.40 | 0.200 | pass | | Malathion | < LOQ | 0.20 | 0.100 | pass | |
| Metalaxyl | < LOQ | 0.20 | 0.100 | pass | | Methiocarb | < LOQ | 0.20 | 0.100 | pass | |
| Methomyl | < LOQ | 0.40 | 0.200 | pass | | MGK-264 | < LOQ | 0.20 | 0.100 | pass | |
| Myclobutanil | < LOQ | 0.20 | 0.100 | pass | | Naled | < LOQ | 0.50 | 0.250 | pass | |
| Oxamyl | < LOQ | 1.0 | 0.500 | pass | | Paclobutrazole | < LOQ | 0.40 | 0.200 | pass | |
| Parathion-Methyl | < LOQ | 0.20 | 0.200 | pass | | Permethrin | < LOQ | 0.20 | 0.100 | pass | |
| Phosmet | < LOQ | 0.20 | 0.100 | pass | | Piperonyl butoxide | < LOQ | 2.0 | 1.00 | pass | |
| Prallethrin | < LOQ | 0.20 | 0.200 | pass | | Propiconazole | < LOQ | 0.40 | 0.200 | pass | |
| Propoxur | < LOQ | 0.20 | 0.100 | pass | | Pyrethrin I (total) | < LOQ | 1.0 | 0.500 | pass | |
| Pyridaben | < LOQ | 0.20 | 0.100 | pass | | Spinosad | < LOQ | 0.20 | 0.100 | pass | |
| Spiromesifen | < LOQ | 0.20 | 0.100 | pass | | Spirotetramat | < LOQ | 0.20 | 0.100 | pass | |
| Spiroxamine | < LOQ | 0.40 | 0.200 | pass | | Tebuconazole | < LOQ | 0.40 | 0.200 | pass | |
| Thiacloprid | < LOQ | 0.20 | 0.100 | pass | | Thiamethoxam | < LOQ | 0.20 | 0.100 | pass | |
| Trifloxystrobin | < LOQ | 0.20 | 0.100 | pass | | | | | | | |

Metals

| Analyte | Result | Limits | Units | LOQ | Batch | Analyze | Method | Notes |
|---|---|---|---|---|---|---|---|---|
| Arsenic | < LOQ | | mg/kg | 0.0493 | 2009228 | 11/04/20 | AOAC 2013.06 (mod.) | X |
| Cadmium | < LOQ | | mg/kg | 0.0493 | 2009228 | 11/04/20 | AOAC 2013.06 (mod.) | X |
| Lead | < LOQ | | mg/kg | 0.0493 | 2009228 | 11/04/20 | AOAC 2013.06 (mod.) | X |
| Mercury | < LOQ | | mg/kg | 0.0246 | 2009228 | 11/04/20 | AOAC 2013.06 (mod.) | X |

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| | |
|---|---|
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| **Report Date:** | 11/06/2020 |
| **ORELAP#:** | OR100028 |
| **Purchase Order:** | |
| **Received:** | 10/30/20 10:50 |

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***

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

Columbia LABORATORIES
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**Purchase Order:**
**Received:** 10/30/20 10:50

DESCHUTESLABS 20-011819
Deschutes Labs

Columbia LABORATORIES
A Tentamus Company

## 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: Deschutes Labs
Contact: Drew Van Roekel
Street: 2020 NW Industrial Park Rd
City: Prineville State: OR Zip: 97754
☑ Email Results: Drew@Deschuteslabs.com
Ph: (___)_____ ☐ Fx Results: (___)_____
Billing (if different):_____

PO Number:
Project Number:
Project Name:
Custom Reporting:
Report to State - ☐ METRC or ☐ Other:
Turnaround time: ☐ Standard ☐ Rush * ☐ Priority Rush *
**Ask for availability*
Sampled by:

| Lab ID | Client Sample Identification | Date | Time | Low potency CBDV | Potency | Pesticides | Residual Solvents | Heavy Metals | Sample Type † | Weight (Units) | Comments/Metrc ID |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1060418-2020-KLER-53-2ISO-01 | 10/28/20 | 9:47 | ✓ | ✓ | ✓ | ✓ | ✓ | ~~I~~ C | 5g | |
| 2 | 1060418-2020-TF-05-DIS-01 | 10/28/20 | 9:47 | | ✓ | ✓ | ✓ | ✓ | C | 5g | |
| 3 | 1060418-2020-TF-04-TFD-X2 | 10/28/20 | 9:47 | | ✓ | ✓ | ✓ | ✓ | C | 5g | |
| ~~4~~ | ~~1060418-2020-SM-64-CBD-01~~ | ~~10/28/20~~ | ~~9:47~~ | | | ✓ | | | C | 5g | Testing cancelled per client email 10/30 -PG |
| | | 10/28/20 | | | | | | | C | | |
| | | 10/28/20 | | | | | | | C | | |
| | | 10/28/20 | | | | | | | C | | |
| | | 10/28/20 | | | | | | | C | | |
| | | 10/28/20 | | | | | | | C | | |
| | | 10/28/20 | | | | | | | C | | |
| | | 10/28/20 | | | | | | | C | | |

| Relinquished By: | Date | Time | Received By: | Date | Time | Lab Use Only: |
|---|---|---|---|---|---|---|
| Drew Van Roekel | 10/28/20 | 0948 | JB | 10/30 | 1050 | ☐ Shipped Via: USPS or ☐ Client drop<br>Evidence of cooling: ☐ Yes \| ☐ No - Temp (°C): 18.6<br>Sample in good condition: ☐ Yes \| ☐ No<br>☐ Cash \| ☐ Check \| ☐ CC \| ☐ Net:<br>Prelog storage: |
| | | | | | | |
| | | | | | | |

† - Sample Type Codes: Vegitation (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*
*Portland, OR 97230*
*P: (503) 254-1794 | Fax: (503) 254-1452*
info@columbialaboratories.com

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**ORELAP#:** OR100028
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**Received:** 10/30/20 10:50

Columbia LABORATORIES A Tentamus Company

**Columbia Laboratories**
**Sample Receipt Form**

Revision: 1.01 Document Control: CF015
Revised: 02/28/2020 Effective: 02/28/2020

Job Number: 20-011819 Search Name: _____

Package/Cooler opened on (if different than received date/time) Date: 10/30 Time: 1050

Received By (Initials): JB

| | | | |
|---|---|---|---|
| 1) Were custody seals on outside of the package/cooler? If YES, how many and where? _____ | YES | NO | (NA) |
| Were signature and date correct? ---------- | YES | NO | (NA) |
| 2) Were custody papers included in the package/cooler? | (YES) | NO | NA |
| 3) Were custody papers properly filled out (ink, sign, date)? | (YES) | NO | NA |
| 4) Did you sign custody papers in the appropriate place? | (YES) | NO | NA |

5) How was the package/cooler delivered?

UPS FEDEX (USPS) CLIENT COURIER OTHER: _____

Tracking Number (written in or copy of shipping label): 9405 5036 9930 0109 5178 04

| | | | |
|---|---|---|---|
| 6) Was packing material used? | YES | (NO) | NA |

Peanuts Bubble Wrap Foam Paper Other:

| | | | |
|---|---|---|---|
| 7) Was sufficient ice used (if appropriate)? What kind? | YES | (NO) | NA |

Blue Ice Ice Cooler Packs Dry Ice

| | | | |
|---|---|---|---|
| 8) Were all sample containers sealed in separate plastic bags? | (YES) | NO | NA |
| 9) Did all sample containers arrive in good condition? | (YES) | NO | NA |
| 10) Were all sample container labels complete? | (YES) | NO | NA |
| 11) Did all sample container labels and tags agree with the coc? | (YES) | NO | NA |
| 12) Were correct sample containers used for the tests indicated? | (YES) | NO | NA |
| 13) Were VOA vials checked for absence of air bubbles (note if found)? | YES | NO | (NA) |
| 14) Was a sufficient amount of sample sent in each sample container? | (YES) | NO | NA |

15) Temperature of the samples upon receipt (See SOP for proper temps) 18.6 °C

16) Sample location prior to login: R25 R39 R44 F44 Ambient Shelf (Cannabis Table) Other: _____

Explain any discrepancies: _____

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**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

**Laboratory Quality Control Results**

**Residual Solvents** **Batch ID:** 2009095

| | Method Blank | | | | | Laboratory Control Sample | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Analyte | Result | | LOQ | Notes | Result | Spike | Units | % Rec | Limits | | | Notes |
| Gas Mix | Propane | ND | < | 200 | | 504 | 595 | µg/g | 84.7 | 70 | - | 130 | |
| Gas Mix | Isobutane | ND | < | 200 | | 665 | 761 | µg/g | 87.4 | 70 | - | 130 | |
| Gas Mix | Butane | ND | < | 200 | | 677 | 761 | µg/g | 89.0 | 70 | - | 130 | |
| Gas Mix | 2,2-Dimethylpropane | ND | < | 200 | | 832 | 955 | µg/g | 87.1 | 70 | - | 130 | |
| Liquid Mix 1 | Methanol | ND | < | 200 | | 1460 | 1610 | µg/g | 90.7 | 70 | - | 130 | |
| Gas Mix | Ethylene Oxide | ND | < | 30 | | 51.2 | 58.3 | µg/g | 87.8 | 70 | - | 130 | |
| Liquid Mix 1 | 2-Methylbutane | ND | < | 200 | | 1560 | 1600 | µg/g | 97.5 | 70 | - | 130 | |
| Liquid Mix 1 | Pentane | ND | < | 200 | | 1500 | 1610 | µg/g | 93.2 | 70 | - | 130 | |
| Liquid Mix 1 | Ethanol | ND | < | 200 | | 1450 | 1610 | µg/g | 90.1 | 70 | - | 130 | |
| Liquid Mix 1 | Ethyl Ether | ND | < | 200 | | 1520 | 1610 | µg/g | 94.4 | 70 | - | 130 | |
| Liquid Mix 1 | 2,2-Dimethylbutane | ND | < | 30 | | 155 | 168 | µg/g | 92.3 | 70 | - | 130 | |
| Liquid Mix 1 | Acetone | ND | < | 200 | | 1490 | 1610 | µg/g | 92.5 | 70 | - | 130 | |
| Liquid Mix 1 | 2-Propanol | ND | < | 200 | | 1450 | 1600 | µg/g | 90.6 | 70 | - | 130 | |
| Liquid Mix 2 | Ethyl Formate | ND | < | 500 | | 1570 | 1710 | µg/g | 91.8 | 70 | - | 130 | |
| Liquid Mix 1 | Acetonitrile | ND | < | 100 | | 456 | 486 | µg/g | 93.8 | 70 | - | 130 | |
| Liquid Mix 2 | Methyl Acetate | ND | < | 500 | | 1550 | 1610 | µg/g | 96.3 | 70 | - | 130 | |
| Liquid Mix 1 | 2,3-Dimethylbutane | ND | < | 30 | | 127 | 162 | µg/g | 78.4 | 70 | - | 130 | |
| Liquid Mix 1 | Dichloromethane | ND | < | 200 | | 463 | 490 | µg/g | 94.5 | 70 | - | 130 | |
| Liquid Mix 1 | 2-Methylpentane | ND | < | 30 | | 146 | 164 | µg/g | 89.0 | 70 | - | 130 | |
| Liquid Mix 2 | MTBE | ND | < | 500 | | 1560 | 1620 | µg/g | 96.3 | 70 | - | 130 | |
| Liquid Mix 1 | 3-Methylpentane | ND | < | 30 | | 149 | 166 | µg/g | 89.8 | 70 | - | 130 | |
| Liquid Mix 1 | Hexane | ND | < | 30 | | 147 | 167 | µg/g | 88.0 | 70 | - | 130 | |
| Liquid Mix 2 | 1-Propanol | ND | < | 500 | | 1480 | 1600 | µg/g | 92.5 | 70 | - | 130 | |
| Liquid Mix 2 | Methylethylketone | ND | < | 500 | | 1500 | 1610 | µg/g | 93.2 | 70 | - | 130 | |
| Liquid Mix 1 | Ethyl acetate | ND | < | 200 | | 1430 | 1610 | µg/g | 88.8 | 70 | - | 130 | |
| Liquid Mix 1 | 2-Butanol | ND | < | 200 | | 1400 | 1610 | µg/g | 87.0 | 70 | - | 130 | |
| Liquid Mix 1 | Tetrahydrofuran | ND | < | 100 | | 436 | 484 | µg/g | 90.1 | 70 | - | 130 | |
| Liquid Mix 1 | Cyclohexane | ND | < | 200 | | 1460 | 1610 | µg/g | 90.7 | 70 | - | 130 | |
| Liquid Mix 2 | 2-methyl-1-propanol | ND | < | 500 | | 1490 | 1610 | µg/g | 92.5 | 70 | - | 130 | |
| Liquid Mix 1 | Benzene | ND | < | 1 | | 24.6 | 24.5 | µg/g | 100.4 | 70 | - | 130 | |
| Liquid Mix 1 | Isopropyl Acetate | ND | < | 200 | | 1390 | 1620 | µg/g | 85.8 | 70 | - | 130 | |
| Liquid Mix 1 | Heptane | ND | < | 200 | | 1440 | 1610 | µg/g | 89.4 | 70 | - | 130 | |
| Liquid Mix 2 | 1-Butanol | ND | < | 500 | | 1480 | 1600 | µg/g | 92.5 | 70 | - | 130 | |
| Liquid Mix 2 | Propyl Acetate | ND | < | 500 | | 1470 | 1620 | µg/g | 90.7 | 70 | - | 130 | |
| Liquid Mix 1 | 1,4-Dioxane | ND | < | 100 | | 440 | 484 | µg/g | 90.9 | 70 | - | 130 | |
| Liquid Mix 1 | 2-Ethoxyethanol | ND | < | 30 | | 146 | 186 | µg/g | 78.5 | 70 | - | 130 | |
| Liquid Mix 2 | Methylisobutylketone | ND | < | 500 | | 1460 | 1610 | µg/g | 90.7 | 70 | - | 130 | |
| Liquid Mix 2 | 3-Methyl-1-butanol | ND | < | 500 | | 1440 | 1610 | µg/g | 89.4 | 70 | - | 130 | |
| Liquid Mix 1 | Ethylene Glycol | ND | < | 200 | | 418 | 509 | µg/g | 82.1 | 70 | - | 130 | |
| Liquid Mix 1 | Toluene | ND | < | 200 | | 438 | 492 | µg/g | 89.0 | 70 | - | 130 | |
| Liquid Mix 2 | Isobutyl Acetate | ND | < | 500 | | 1440 | 1610 | µg/g | 89.4 | 70 | - | 130 | |
| Liquid Mix 2 | 1-Pentanol | ND | < | 500 | | 1440 | 1620 | µg/g | 88.9 | 70 | - | 130 | |
| Liquid Mix 2 | Butyl Acetate | ND | < | 500 | | 1440 | 1610 | µg/g | 89.4 | 70 | - | 130 | |
| Liquid Mix 1 | Ethylbenzene | ND | < | 200 | | 847 | 971 | µg/g | 87.2 | 70 | - | 130 | |
| Liquid Mix 1 | m,p-Xylene | ND | < | 200 | | 851 | 975 | µg/g | 87.3 | 70 | - | 130 | |
| Liquid Mix 1 | o-Xylene | ND | < | 200 | | 882 | 966 | µg/g | 91.3 | 70 | - | 130 | |
| Liquid Mix 1 | Cumene | ND | < | 30 | | 156 | 167 | µg/g | 93.4 | 70 | - | 130 | |
| Liquid Mix 2 | Anisole | ND | < | 500 | | 1450 | 1610 | µg/g | 90.1 | 70 | - | 130 | |
| Liquid Mix 2 | DMSO | ND | < | 500 | | 1480 | 1650 | µg/g | 89.7 | 70 | - | 130 | |
| Liquid Mix 2 | 1,2-dimethoxyethane | ND | < | 50 | | 143 | 170 | µg/g | 84.1 | 70 | - | 130 | |
| Liquid Mix 2 | Triethylamine | ND | < | 500 | | 1440 | 1610 | µg/g | 89.4 | 70 | - | 130 | |
| Liquid Mix 2 | N,N-dimethylformamide | ND | < | 150 | | 449 | 490 | µg/g | 91.6 | 70 | - | 130 | |
| Liquid Mix 2 | N,N-dimethylacetamide | ND | < | 150 | | 418 | 485 | µg/g | 86.2 | 70 | - | 130 | |
| Liquid Mix 2 | Pyridine | ND | < | 50 | | 147 | 167 | µg/g | 88.0 | 70 | - | 130 | |

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 20-011819/D02.R00
**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

**QC - Sample Duplicate** **Sample ID: 20-011830-0001**

| | Analyte | Result | Org. Result | LOQ | Units | RPD | Limits | Accept/Fail | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Gas Mix | Propane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | Isobutane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | Butane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | 2,2-Dimethylpropane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Methanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | Ethylene Oxide | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Methylbutane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Pentane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethyl Ether | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2,2-Dimethylbutane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Acetone | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Propanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Ethyl Formate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Acetonitrile | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Methyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2,3-Dimethylbutane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Dichloromethane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Methylpentane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | MTBE | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 3-Methylpentane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Hexane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1-Propanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Methylethylketone | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethyl acetate | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Butanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Tetrahydrofuran | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Cyclohexane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 2-methyl-1-propanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Benzene | ND | ND | 1 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Isopropyl Acetate | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Heptane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1-Butanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Propyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 1,4-Dioxane | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Ethoxyethanol | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Methylisobutylketone | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 3-Methyl-1-butanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethylene Glycol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Toluene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Isobutyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1-Pentanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Butyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethylbenzene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | m,p-Xylene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | o-Xylene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Cumene | ND | 33.1 | 30 | µg/g | 9.8 | < 20 | Acceptable | |
| Liquid Mix 2 | Anisole | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | DMSO | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1,2-dimethoxyethane | ND | ND | 50 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Triethylamine | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | N,N-dimethylformamide | ND | ND | 150 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | N,N-dimethylacetamide | ND | ND | 150 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 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
* Screening only
Q1 Quality Control result biased high. Only non detect samples reported.

***Units of Measure:***

µg/g- Microgram per gram or ppm
mg/Kg - Milligrams per Kilogram
Aw- Water Activity unit

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

**Report Number:** 20-011819/D02.R00
**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

**QC - Sample Duplicate** **Sample ID: 20-011830-0001**

| | Analyte | Result | Org. Result | LOQ | Units | RPD | Limits | Accept/Fail | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Gas Mix | Propane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | Isobutane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | Butane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | 2,2-Dimethylpropane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Methanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Gas Mix | Ethylene Oxide | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Methylbutane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Pentane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethyl Ether | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2,2-Dimethylbutane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Acetone | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Propanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Ethyl Formate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Acetonitrile | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Methyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2,3-Dimethylbutane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Dichloromethane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Methylpentane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | MTBE | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 3-Methylpentane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Hexane | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1-Propanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Methylethylketone | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethyl acetate | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Butanol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Tetrahydrofuran | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Cyclohexane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 2-methyl-1-propanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Benzene | ND | ND | 1 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Isopropyl Acetate | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Heptane | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1-Butanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Propyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 1,4-Dioxane | ND | ND | 100 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | 2-Ethoxyethanol | ND | ND | 30 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Methylisobutylketone | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 3-Methyl-1-butanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethylene Glycol | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Toluene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Isobutyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1-Pentanol | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Butyl Acetate | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Ethylbenzene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | m,p-Xylene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | o-Xylene | ND | ND | 200 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 1 | Cumene | ND | 33.1 | 30 | µg/g | 9.8 | < 20 | Acceptable | |
| Liquid Mix 2 | Anisole | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | DMSO | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 1,2-dimethoxyethane | ND | ND | 50 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | Triethylamine | ND | ND | 500 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | N,N-dimethylformamide | ND | ND | 150 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | N,N-dimethylacetamide | ND | ND | 150 | µg/g | 0.0 | < 20 | Acceptable | |
| Liquid Mix 2 | 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
* Screening only
Q1 Quality Control result biased high. Only non detect samples reported.

***Units of Measure:***

µg/g- Microgram per gram or ppm
mg/Kg - Milligrams per Kilogram
Aw- Water Activity unit

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 20-011819/D02.R00
**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

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

**Laboratory Quality Control Results**

**J AOAC 2015 V98-6** **Batch ID: 2009201**

**Sample Duplicate** Sample ID: **20-011819-0001**

| Analyte | Result | Org. Result | LOQ | Units | RPD | Limits | Evaluation | Notes |
|---|---|---|---|---|---|---|---|---|
| CBDV-A | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBDV | **0.317** | **0.334** | 0.1 | % | 5.37 | < 20 | Acceptable | |
| CBD-A | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBG-A | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBG | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBD | **>98.0** | **>98.0** | 0.1 | % | NA | < 20 | Acceptable | |
| THCV | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| THCVA | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBN | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| THC | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| D8THC | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBL | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBC | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| THCA | <LOQ | <LOQ | 0.1 | % | NA | < 20 | Acceptable | |
| CBCA | <LOQ | <LOQ | 0.1 | % | 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

Columbia LABORATORIES
A Tentamus Company

12423 NE Whitaker Way
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503-254-1794

**Report Number:** 20-011819/D02.R00
**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

Revision: 1.00 Control: CFL-C21
Revised: 08/12/2019 Effective: 08/15/2019

## Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 | Units: mg/Kg | Batch ID: 2009293

| Method Blank | | | | Laboratory Control Sample | | | | |
|---|---|---|---|---|---|---|---|---|
| Analyte | Blank Result | Blank Limits | Notes | LCS Result | LCS Spike | LCS % Rec | Limits | Notes |
| Acephate | 0.010 | < 0.200 | | 0.987 | 1.000 | 98.7 | 72.4 - 126 | |
| Acequinocyl | 0.040 | < 1.000 | | 3.987 | 4.000 | 99.7 | 79.8 - 122 | |
| Acetamiprid | 0.010 | < 0.100 | | 0.395 | 0.400 | 98.8 | 84.3 - 119 | |
| Aldicarb | 0.000 | < 0.200 | | 0.681 | 0.800 | 85.1 | 82.9 - 120 | |
| Abamectin | 0.003 | < 0.288 | | 0.999 | 1.000 | 99.9 | 79.6 - 124 | |
| Azoxystrobin | 0.009 | < 0.100 | | 0.406 | 0.400 | 101.5 | 79.4 - 127 | |
| Bifenazate | 0.004 | < 0.100 | | 0.412 | 0.400 | 102.9 | 81.6 - 124 | |
| Bifenthrin | 0.000 | < 0.100 | | 0.385 | 0.400 | 96.2 | 71.5 - 133 | |
| Boscalid | 0.000 | < 0.100 | | 0.716 | 0.800 | 89.5 | 74.0 - 131 | |
| Carbaryl | 0.000 | < 0.100 | | 0.379 | 0.400 | 94.6 | 82.1 - 121 | |
| Carbofuran | 0.007 | < 0.100 | | 0.392 | 0.400 | 97.9 | 85.1 - 125 | |
| Chlorantraniliprol | 0.000 | < 0.100 | | 0.406 | 0.400 | 101.5 | 70.6 - 131 | |
| Chlorfenapyr | 0.000 | < 1.000 | | 2.098 | 2.000 | 104.9 | 71.0 - 132 | |
| Chlorpyrifos | 0.000 | < 0.100 | | 0.387 | 0.400 | 96.8 | 72.3 - 134 | |
| Clofentezine | 0.000 | < 0.100 | | 0.369 | 0.400 | 92.2 | 80.1 - 117 | |
| Cyfluthrin | 0.000 | < 1.000 | | 2.052 | 2.000 | 102.6 | 71.8 - 133 | |
| Cypermethrin | 0.000 | < 1.000 | | 2.043 | 2.000 | 102.1 | 83.1 - 126 | |
| Daminozide | 0.037 | < 1.000 | | 1.891 | 2.000 | 94.6 | 74.6 - 124 | |
| Diazinon | 0.004 | < 0.100 | | 0.370 | 0.400 | 92.5 | 78.9 - 126 | |
| Dichlorvos | 0.026 | < 0.500 | | 1.888 | 2.000 | 94.4 | 76.1 - 124 | |
| Dimethoat | 0.000 | < 0.100 | | 0.386 | 0.400 | 96.6 | 82.8 - 119 | |
| Ethoprophos | 0.000 | < 0.100 | | 0.388 | 0.400 | 96.9 | 69.5 - 129 | |
| Etofenprox | 0.000 | < 0.100 | | 0.786 | 0.800 | 98.2 | 85.2 - 128 | |
| Etoxazol | 0.006 | < 0.100 | | 0.372 | 0.400 | 93.0 | 79.7 - 126 | |
| Fenoxycarb | 0.000 | < 0.100 | | 0.391 | 0.400 | 97.7 | 84.1 - 122 | |
| Fenpyroximat | 0.010 | < 0.100 | | 0.767 | 0.800 | 95.9 | 82.4 - 126 | |
| Fipronil | 0.000 | < 0.100 | | 0.688 | 0.800 | 86.0 | 80.6 - 125 | |
| Flonicamid | 0.000 | < 0.400 | | 0.923 | 1.000 | 92.3 | 80.9 - 119 | |
| Fludioxonil | 0.000 | < 0.100 | | 0.776 | 0.800 | 97.0 | 73.0 - 136 | |
| Hexythiazox | 0.000 | < 0.400 | | 0.961 | 1.000 | 96.1 | 82.5 - 125 | |
| Imazalil | 0.000 | < 0.100 | | 0.395 | 0.400 | 98.7 | 81.4 - 128 | |
| Imidacloprid | 0.003 | < 0.200 | | 0.773 | 0.800 | 96.6 | 76.9 - 125 | |
| Kresoxim-Methyl | 0.000 | < 0.100 | | 0.799 | 0.800 | 99.9 | 82.6 - 124 | |
| Malathion | 0.005 | < 0.100 | | 0.372 | 0.400 | 93.0 | 74.1 - 130 | |
| Metalaxyl | 0.000 | < 0.100 | | 0.394 | 0.400 | 98.5 | 79.7 - 124 | |
| Methiocarb | 0.008 | < 0.100 | | 0.370 | 0.400 | 92.6 | 81.0 - 123 | |
| Methomyl | 0.000 | < 0.200 | | 0.753 | 0.800 | 94.1 | 79.4 - 118 | |
| MGK 264 | 0.000 | < 0.100 | | 0.399 | 0.400 | 99.7 | 77.2 - 128 | |
| Myclobutanil | 0.000 | < 0.100 | | 0.376 | 0.400 | 94.0 | 80.6 - 123 | |
| Naled | 0.000 | < 0.200 | | 0.876 | 1.000 | 87.6 | 80.3 - 126 | |
| Oxamyl | 0.000 | < 0.400 | | 1.823 | 2.000 | 91.1 | 80.1 - 117 | |
| Paclobutrazol | 0.000 | < 0.200 | | 0.765 | 0.800 | 95.6 | 81.6 - 126 | |
| Parathion Methyl | 0.000 | < 0.200 | | 0.788 | 0.800 | 98.5 | 72.5 - 135 | |
| Permethrin | 0.000 | < 0.100 | | 0.387 | 0.400 | 96.8 | 75.0 - 139 | |
| Phosmet | 0.002 | < 0.100 | | 0.395 | 0.400 | 98.7 | 82.0 - 122 | |
| Piperonyl butoxide | 0.041 | < 1.000 | | 1.906 | 2.000 | 95.3 | 81.3 - 137 | |
| Prallethrin | 0.029 | < 0.200 | | 0.378 | 0.400 | 94.4 | 81.3 - 127 | |
| Propiconazole | 0.010 | < 0.200 | | 0.803 | 0.800 | 100.3 | 84.7 - 121 | |
| Propoxur | 0.008 | < 0.100 | | 0.377 | 0.400 | 94.2 | 84.2 - 121 | |
| Pyrethrins | 0.001 | < 0.500 | | 0.401 | 0.413 | 97.1 | 76.1 - 141 | |
| Pyridaben | 0.000 | < 0.100 | | 0.448 | 0.400 | 112.1 | 79.2 - 147 | |
| Spinosad | 0.000 | < 0.100 | | 0.381 | 0.388 | 98.3 | 88.4 - 127 | |
| Spiromesifen | 0.000 | < 0.100 | | 0.368 | 0.400 | 92.0 | 79.9 - 127 | |
| Spirotetramat | 0.005 | < 0.100 | | 0.374 | 0.400 | 93.5 | 81.1 - 121 | |
| Spiroxamine | 0.011 | < 0.100 | | 0.787 | 0.800 | 98.4 | 78.4 - 133 | |
| Tebuconazol | 0.000 | < 0.200 | | 0.786 | 0.800 | 98.3 | 83.1 - 122 | |
| Thiacloprid | 0.000 | < 0.100 | | 0.398 | 0.400 | 99.5 | 84.3 - 120 | |
| Thiamethoxam | 0.000 | < 0.100 | | 0.386 | 0.400 | 96.6 | 80.1 - 121 | |
| Trifloxystrobin | 0.004 | < 0.100 | | 0.380 | 0.400 | 95.0 | 81.4 - 125 | |

Columbia LABORATORIES
A Tentamus Company

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

**Report Number:** 20-011819/D02.R00
**Report Date:** 11/06/2020
**ORELAP#:** OR100028
**Purchase Order:**
**Received:** 10/30/20 10:50

Revision: 1.00 Control: CFL-C21
Revised: 08/12/2019 Effective: 08/15/2019

## Laboratory Pesticide Quality Control Results

AOAC 2007.1 & EN 15662 | Units: mg/Kg | Batch ID: 2009293

Matrix Spike/Matrix Spike Duplicate Recoveries | Sample ID: 20-011819-0001

| Analyte | Result | MS Res | MSD Res | Spike | RPD% | Limit | MS % Rec | MSD % Rec | Limits | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Acephate | 0.006 | 1.002 | 1.026 | 1.000 | 2.4% | < 30 | 99.6% | 102.0% | 50 - 150 | |
| Acequinocyl | 0.000 | 4.061 | 4.039 | 4.000 | 0.5% | < 30 | 101.5% | 101.0% | 50 - 150 | |
| Acetamiprid | 0.011 | 0.383 | 0.389 | 0.400 | 1.8% | < 30 | 92.8% | 94.5% | 50 - 150 | |
| Aldicarb | 0.000 | 0.778 | 0.711 | 0.800 | 9.0% | < 30 | 97.2% | 88.8% | 50 - 150 | |
| Abamectin | 0.000 | 1.293 | 1.312 | 1.000 | 1.5% | < 30 | 129.3% | 131.2% | 50 - 150 | |
| Azoxystrobin | 0.007 | 0.425 | 0.473 | 0.400 | 10.9% | < 30 | 104.6% | 116.6% | 50 - 150 | |
| Bifenazate | 0.003 | 0.415 | 0.386 | 0.400 | 7.5% | < 30 | 103.1% | 95.7% | 50 - 150 | |
| Bifenthrin | 0.000 | 0.655 | 0.631 | 0.400 | 3.6% | < 30 | 163.6% | 157.8% | 50 - 150 | Q1 |
| Boscalid | 0.000 | 0.765 | 0.759 | 0.800 | 0.8% | < 30 | 95.6% | 94.8% | 50 - 150 | |
| Carbaryl | 0.000 | 0.388 | 0.386 | 0.400 | 0.4% | < 30 | 96.9% | 96.5% | 50 - 150 | |
| Carbofuran | 0.000 | 0.389 | 0.380 | 0.400 | 2.4% | < 30 | 97.2% | 94.9% | 50 - 150 | |
| Chlorantraniliprol | 0.000 | 0.403 | 0.418 | 0.400 | 3.7% | < 30 | 100.8% | 104.6% | 50 - 150 | |
| Chlorfenapyr | 0.000 | 2.236 | 2.075 | 2.000 | 7.4% | < 30 | 111.8% | 103.8% | 50 - 150 | |
| Chlorpyrifos | 0.000 | 0.179 | 0.182 | 0.400 | 1.6% | < 30 | 44.7% | 45.4% | 50 - 150 | Q |
| Clofentezine | 0.000 | 0.404 | 0.403 | 0.400 | 0.3% | < 30 | 101.1% | 100.8% | 50 - 150 | |
| Cyfluthrin | 0.000 | 3.289 | 3.010 | 2.000 | 8.9% | < 30 | 164.4% | 150.5% | 30 - 150 | Q1 |
| Cypermethrin | 0.000 | 2.227 | 2.532 | 2.000 | 12.8% | < 30 | 111.4% | 126.6% | 50 - 150 | |
| Daminozide | 0.035 | 1.652 | 1.659 | 2.000 | 0.4% | < 30 | 80.8% | 81.2% | 30 - 150 | |
| Diazinon | 0.004 | 0.456 | 0.431 | 0.400 | 5.6% | < 30 | 113.1% | 106.9% | 50 - 150 | |
| Dichlorvos | 0.023 | 1.946 | 1.831 | 2.000 | 6.2% | < 30 | 96.2% | 90.4% | 50 - 150 | |
| Dimethoat | 0.000 | 0.383 | 0.388 | 0.400 | 1.0% | < 30 | 95.9% | 96.9% | 50 - 150 | |
| Ethoprophos | 0.000 | 0.374 | 0.369 | 0.400 | 1.5% | < 30 | 93.5% | 92.2% | 50 - 150 | |
| Etofenprox | 0.000 | 0.792 | 0.686 | 0.800 | 14.5% | < 30 | 99.1% | 85.7% | 50 - 150 | |
| Etoxazol | 0.001 | 0.406 | 0.436 | 0.400 | 7.1% | < 30 | 101.4% | 108.9% | 50 - 150 | |
| Fenoxycarb | 0.000 | 0.410 | 0.417 | 0.400 | 1.8% | < 30 | 102.5% | 104.3% | 50 - 150 | |
| Fenpyroximat | 0.000 | 0.867 | 0.821 | 0.800 | 5.4% | < 30 | 108.4% | 102.7% | 50 - 150 | |
| Fipronil | 0.000 | 1.079 | 1.035 | 0.800 | 4.1% | < 30 | 134.8% | 129.4% | 50 - 150 | |
| Flonicamid | 0.000 | 0.943 | 1.010 | 1.000 | 6.8% | < 30 | 94.3% | 101.0% | 50 - 150 | |
| Fludioxonil | 0.000 | 0.702 | 0.800 | 0.800 | 13.0% | < 30 | 87.7% | 99.9% | 50 - 150 | |
| Hexythiazox | 0.000 | 0.972 | 0.986 | 1.000 | 1.4% | < 30 | 97.2% | 98.6% | 50 - 150 | |
| Imazalil | 0.000 | 0.336 | 0.336 | 0.400 | 0.1% | < 30 | 84.0% | 84.1% | 50 - 150 | |
| Imidacloprid | 0.002 | 0.798 | 0.841 | 0.800 | 5.3% | < 30 | 99.4% | 104.9% | 50 - 150 | |
| Kresoxim-Methyl | 0.000 | 0.752 | 0.812 | 0.800 | 7.6% | < 30 | 94.0% | 101.5% | 50 - 150 | |
| Malathion | 0.002 | 0.431 | 0.432 | 0.400 | 0.1% | < 30 | 107.2% | 107.4% | 50 - 150 | |
| Metalaxyl | 0.000 | 0.387 | 0.394 | 0.400 | 1.8% | < 30 | 96.8% | 98.6% | 50 - 150 | |
| Methiocarb | 0.007 | 0.416 | 0.413 | 0.400 | 0.6% | < 30 | 102.2% | 101.5% | 50 - 150 | |
| Methomyl | 0.000 | 0.711 | 0.747 | 0.800 | 5.0% | < 30 | 88.8% | 93.4% | 50 - 150 | |
| MGK 264 | 0.000 | 0.368 | 0.366 | 0.400 | 0.5% | < 30 | 91.9% | 91.5% | 50 - 150 | |
| Myclobutanil | 0.000 | 0.398 | 0.381 | 0.400 | 4.2% | < 30 | 99.4% | 95.3% | 50 - 150 | |
| Naled | 0.000 | 1.023 | 1.069 | 1.000 | 4.4% | < 30 | 102.3% | 106.9% | 50 - 150 | |
| Oxamyl | 0.000 | 1.716 | 2.019 | 2.000 | 16.2% | < 30 | 85.8% | 100.9% | 50 - 150 | |
| Paclobutrazol | 0.000 | 0.855 | 0.847 | 0.800 | 1.0% | < 30 | 106.9% | 105.8% | 50 - 150 | |
| Parathion Methyl | 0.000 | 0.957 | 0.835 | 0.800 | 13.6% | < 30 | 119.6% | 104.4% | 30 - 150 | |
| Permethrin | 0.000 | 0.431 | 0.400 | 0.400 | 7.5% | < 30 | 107.8% | 100.0% | 50 - 150 | |
| Phosmet | 0.002 | 0.367 | 0.368 | 0.400 | 0.3% | < 30 | 91.3% | 91.6% | 50 - 150 | |
| Piperonyl butoxide | 0.000 | 2.185 | 2.179 | 2.000 | 0.3% | < 30 | 109.3% | 109.0% | 50 - 150 | |
| Prallethrin | 0.031 | 0.532 | 0.544 | 0.400 | 2.4% | < 30 | 125.3% | 128.3% | 50 - 150 | |
| Propiconazole | 0.000 | 0.902 | 0.911 | 0.800 | 1.0% | < 30 | 112.7% | 113.9% | 50 - 150 | |
| Propoxur | 0.006 | 0.389 | 0.375 | 0.400 | 3.7% | < 30 | 95.8% | 92.3% | 50 - 150 | |
| Pyrethrins | 0.005 | 0.521 | 0.570 | 0.413 | 9.1% | < 30 | 124.9% | 136.8% | 50 - 150 | |
| Pyridaben | 0.000 | 0.349 | 0.379 | 0.400 | 8.2% | < 30 | 87.3% | 94.8% | 50 - 150 | |
| Spinosad | 0.003 | 0.333 | 0.346 | 0.388 | 3.6% | < 30 | 85.1% | 88.3% | 50 - 150 | |
| Spiromesifen | 0.000 | 0.389 | 0.417 | 0.400 | 7.0% | < 30 | 97.2% | 104.3% | 50 - 150 | |
| Spirotetramat | 0.000 | 0.368 | 0.388 | 0.400 | 5.5% | < 30 | 91.9% | 97.0% | 50 - 150 | |
| Spiroxamine | 0.010 | 0.721 | 0.771 | 0.800 | 6.9% | < 30 | 88.9% | 95.2% | 50 - 150 | |
| Tebuconazol | 0.000 | 0.950 | 0.965 | 0.800 | 1.5% | < 30 | 118.8% | 120.6% | 50 - 150 | |
| Thiacloprid | 0.000 | 0.399 | 0.374 | 0.400 | 6.5% | < 30 | 99.7% | 93.5% | 50 - 150 | |
| Thiamethoxam | 0.000 | 0.369 | 0.403 | 0.400 | 8.8% | < 30 | 92.4% | 100.9% | 50 - 150 | |
| Trifloxystrobin | 0.003 | 0.411 | 0.414 | 0.400 | 0.8% | < 30 | 101.9% | 102.8% | 50 - 150 | |

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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 | Quantitaion 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. |