Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Comprehensive Analysis Report

Sample Overview

Client: Farmer and Chemist
Sample Name: Ruff Days (Dog Chews)
Sample Matrix: Edible
Sample Lot: RD05EXP08.23

Date Received: 01/07/2022
APRC #: RMH220107A

Assay	Disposition	Date Tested
Cannabinoid Testing	Tested	01-11-2022
Heavy Metals - Utah State Cannabis Panel	Tested	01-12-2022
Residual Solvents	Tested	1-11-2022

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Instrument Analysis Report

Potency

Method: SOP 1-2026.01 Sample Name: Ruff Days (Dog Chews) APRC Lot Number: RMH220107A

Cannabinoid	RT	Total %	Total mg/g
Cannabidivarin	ND	ND	ND
Cannabidiolic Acid	ND	ND	ND
Cannabigerolic Acid	ND	ND	ND
Cannabigerol	ND	ND	ND
Cannabidiol	3.25	0.06	0.58
Tetrahydrocannabivarin	ND	ND	ND
Cannabinol	ND	ND	ND
Delta-9-Tetrahydrocannabinol	ND	ND	ND
Delta-8-Tetrahydrocannabinol	ND	ND	ND
Cannabichromene	ND	ND	ND
Tetrahydrocannabinolic acid	ND	ND	ND

Performed by: Jordan Morley

Reviewed by: Cierra Gunn

	%	mg/g
Total Cannabinoids	0.06	0.58
Total THC[t]	ND	ND
Total CBD[s]	0.06	0.58

[t]Total Thc is calculated by Δ9-THC +(THCA-A*0.877)
[s]Total CBD is calculated by CBD + (CBDA*0.877)

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Instrument Analysis Report

Heavy Metals

Method: CTLA | Sample Name: Ruff Days (Dog Chews) | APRC Lot Number: RMH220107A

Analyte	Result (ppm)	LOD (ppm)	Threshold (ppm)	Pass/Fail
Arsenic	0.038	0.001	2.00	Pass
Cadmium	0.047	0.001	0.82	Pass
Lead	0.046	0.001	1.20	Pass
Mercury	<0.001	0.001	0.40	Pass

Heavy metal analysis is completed in partnership with Contract Testing Laboratories of America, Orem UT.

Performed by: CTLA

Reviewed by: Cierra Gunn

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

Instrument Analysis Report

Residual Solvents

Method: 1-2027.02 Sample Name: Ruff Days (Dog Chews) APRC Lot Number: RMH220107A

Residual Solvent	Finding (µg/g)	Action Level (µg/g)	Pass/Fail
Dimethyl sulfoxide	ND	5000	Pass
N,N-dimethylacetamide	ND	1090	Pass
1,2 Dimethoxyethane	ND	100	Pass
1,4 Dioxane	ND	380	Pass
1-Butanol	ND	5000	Pass
1-Pentanol	ND	5000	Pass
1-Propanol	ND	5000	Pass
2-Butanone	ND	5000	Pass
2-Butanol	ND	5000	Pass
2-Ethoxyethanol	ND	160	Pass
2-Methylbutane	ND	5000	Pass
2-Propanol	ND	5000	Pass
Acetone	ND	5000	Pass
Acetonitrile	ND	410	Pass
Benzene	ND	2	Pass
Butane	ND	5000	Pass
Cumene	ND	70	Pass
Cyclohexane	ND	3880	Pass
Dichloromethane	ND	600	Pass
2,2-Dimethylbutane	ND	290	Pass
2,3-Dimethylbutane	ND	290	Pass
m,p-Xylene	ND	See Total Xylenes	Pass
o-Xylene	ND	See Total Xylenes	Pass
Ethanol	96.780	5000	Pass
Ethyl Acetate	ND	5000	Pass
Ethyl Benzene	ND	See Total Xylenes	Pass
Ethyl Ether	ND	5000	Pass
Ethylene Glycol	ND	620	Pass
Ethylene Oxide	ND	50	Pass

Residual Solvent	Finding (µg/g)	Action Level (µg/g)	Pass/Fail
Heptane	ND	5000	Pass
Hexane	ND	290	Pass
Isopropyl Acetate	ND	5000	Pass
Methanol	17.615	3000	Pass
Methylpropane	ND	5000	Pass
2-Methylpentane	ND	290	Pass
3-Methylpentane	ND	290	Pass
N,N-Dimethylformamide	ND	880	Pass
Pentane	ND	5000	Pass
Propane	ND	5000	Pass
Pyridine	ND	100	Pass
Sulfolane	ND	160	Pass
Tetrahydrofuran	ND	720	Pass
Toluene	ND	890	Pass
Total Xylenes	ND	2170	Pass

† Per Utah state code 4-41a-701(3) Section R68-29-6
‡ Total Xylenes is a combination of the following: o-Xylene, m-Xylene, p-Xylene, and Ethylbenzene

Overall Disposition: Pass
Performed By: William Deutschman
Reviewed By: Jordan Morley

Approved By: Cierra Gunn
01/13/2022

Aromatic Plant Research Center
230 N 1200 E STE 100
Lehi, UT 84043
www.aromaticplant.org

PCR-Microarray Analysis Report

Microbial Certificate of Analysis

Client:	Farmer and Chemist	Date Received:	01/07/2022
Sample Name:	Ruff Days (Dog Chews)	Date Tested:	01/10/2022
Sample Matrix:	Edible	APRC #:	RMH220107A
Sample Lot:	RD05EXP08.23		

Total Counts			
Group	Result	Specification†	Disposition
Total Aerobic Bacteria	8,600	Report Only	Tested
Total Bile Tolerant Gram-Negative Bacteria	380	Report Only	Tested
Total Enterobacteria/Coliforms	280	Report Only	Tested
Total Yeast and Mold	12,000	Report Only	Tested

Specific Organism Identification			
Organism	Result	Specification†	Disposition
Aspergillus flavus	Detected	Report Only	Tested
Aspergillus fumigatus	Detected	Report Only	Tested
Aspergillus niger	ND	Report Only	Tested
Aspergillus terreus	ND	Report Only	Tested
Escherichia coli – Non shigella	ND	Report Only	Tested
Escherichia coli – Shigella spp.‡	ND	Report Only	Tested
Listeria monocytogenes	ND	Report Only	Tested
Salmonella – Specific Gene	ND	Report Only	Tested
Staphylococcus aureus	ND	Report Only	Tested
Pseudomonas aeruginosa	ND	Report Only	Tested

† - Per Utah State R68-29-8 requirements

‡ - Interpretation is based on presence of Shigella specific genes along with positive findings of STX1 and STX2 genes.

Notes:

Foreign Matter: ND

Analyzed by: J. Morley

Reviewed by: C. Gunn

Insight Report

Printed at 1/12/2022 10:09:21 AM

Ruff Days (Dog Chews)_RMH220107A_1112022_1722 PM_014

Sample ID: RMH220107A
Date acquired: 1/11/2022 9:09:25 PM
Acquired by: Admin
Data File: C:\LabSolutions\Data\Ruff Days (Dog Chews)_RMH220107A_1112022_1722 PM_014.lcd
Vial: 30 | Inj. Volume: 1.0000uL | Tray: 1

Name	Conc.	Unit	Comment 1	Comment 2
Abamectin B1a	----	ppm	0.5 ppm limit	LOQ = 0.0005 ppm
Acephate	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Acequinocyl	----	ppm	2 ppm limit	LOQ = 0.0005 ppm
Acetamiprid	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Aldicarb	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Azoxystrobin	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Bifenazate	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Bifenthrin	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Boscalid	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Carbaryl	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Carbofuran	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Chlorantraniliprole	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Chlorfenapyr	----	ppm	1 ppm limit	LOQ = 0.0005 ppm
Chlorpyrifos	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Clofentezine	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Cyfluthrin	----	ppm	1 ppm limit	LOQ = 0.005 ppm
Cypermethrin	----	ppm	1 ppm limit	LOQ = 0.0005 ppm
Daminozide	----	ppm	1 ppm limit	LOQ = 0.01 ppm
Diazinon	----	ppm	0.2 ppm limit	LOQ = 0.005 ppm
Dichlorvos (DDVP)	----	ppm	0.1 ppm limit	LOQ = 0.0025 ppm
Dimethoate	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Ethoprophos	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Etofenprox	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Etoxazole	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Fenoxycarb	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Fenpyroximate	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Fipronil	----	ppm	0.4 ppm limit	LOQ = 0.005 ppm
Flonicamid	----	ppm	1 ppm limit	LOQ = 0.0005 ppm
Fludioxonil	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Hexythiazox	----	ppm	1 ppm limit	LOQ = 0.0005 ppm
Imazalil	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Imidacloprid	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Kresoxim-methyl	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Malathion	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Metalaxyl	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Methiocarb	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Methomyl	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
MGK 264 (Pyrodone)	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Myclobutanil	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Naled	----	ppm	0.5 ppm limit	LOQ = 0.0005 ppm
Oxamyl	----	ppm	1 ppm limit	LOQ = 0.0005 ppm
Paclobutrazol	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Parathion Methyl	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Permethrins	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Phosmet	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Piperonyl butoxide	----	ppm	2 ppm limit	LOQ = 0.0005 ppm
Prallethrin	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Propiconazole	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Propoxur	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Pyrethrin I	----	ppm	0.5 ppm limit	LOQ = 0.0005 ppm
Pyrethrin II	----	ppm	0.5 ppm limit	LOQ = 0.0005 ppm
Pyridaben	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Spinosad A	----	ppm	0.1 ppm limit	LOQ = 0.0005 ppm
Spinosad D	----	ppm	0.1 ppm limit	LOQ = 0.0005 ppm
Spiromesifen	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Spirotetramat	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Spiroxamine	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Tebuconazole	----	ppm	0.4 ppm limit	LOQ = 0.0005 ppm
Thiacloprid	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Thiamethoxam	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm
Trifloxystrobin	----	ppm	0.2 ppm limit	LOQ = 0.0005 ppm

Analyzed by: Dr. Noura Dosoky **Date:** 1/12/2022
Reviewed by: Dr. Prabodh Satyal **Date:** 1/12/2022