



Customer: Trade Roots

Address:

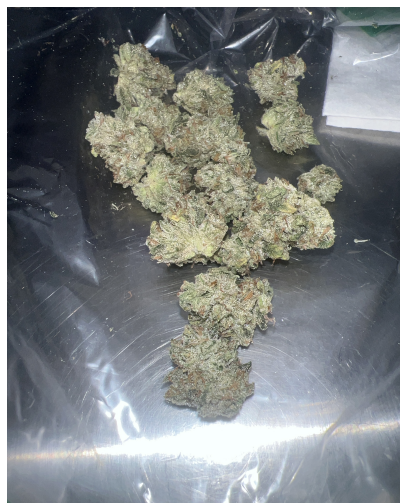
6 Thatcher Lane  
Wareham MA 02571

Phone: 774-326-0077

License #: MP281436 & MC281262



Sample ID: 11470  
Sample Name: Spec Ops- Bulk  
Sample Strain: Spec Ops  
Sample Type: Flower  
Received Date: 03/14/2024  
Report Date: 03/19/2024  
METRC ID: 1A40A0300006BD1000004713  
METRC Source ID:  
1A40A0300006BD1000005224  
Client Batch ID: SOP-030724-B1  
Client Sample Size: 6 g



## Results Summary

### Cannabinoids

03/18/2024

TESTED

### Terpenes Extended

03/18/2024

TESTED

### Heavy Metals

03/18/2024

✓ PASS

### Microbial Impurities

03/18/2024

✓ PASS

### Mycotoxins

03/18/2024

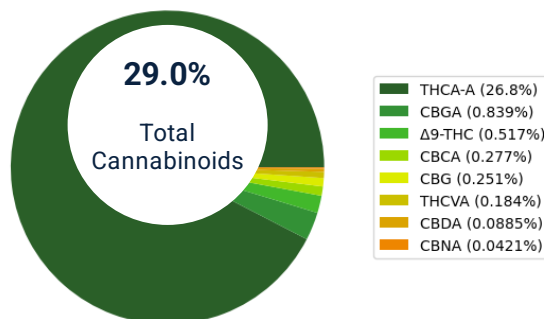
✓ PASS

### Pesticides

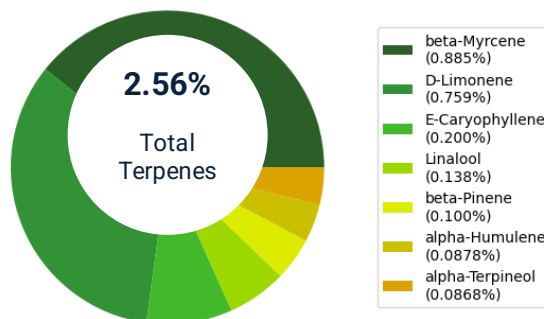
03/18/2024

✓ PASS

## Cannabinoid Distribution (%)



## Terpene Distribution (%)



## Cannabinoids

**Date Started:** 03/14/2024  
**Instrument:** UPLC-PDA

**Date Completed:** 03/18/2024  
**Method:** TP-09.001.05 & TP-09.012.05

**Analyst:** Yuesmin Wang Kovaleff  
**Deviation:** N/A

Cannabinoid	Result (%)	Result (mg/g)	LOD (%)	LOQ (%)
THCA-A	26.8	268	0.0892	0.558
CBGA	0.839	8.39	0.00219	0.0279
Δ9-THC	0.517	5.17	0.0103	0.0558
CBCA	0.277	2.77	0.00718	0.0223
CBG	0.251	2.51	0.00242	0.0279
THCVA	0.184	1.84	0.00237	0.0223
CBDA	0.0885	0.885	0.00352	0.0558
CBNA	0.0421	0.421	0.00295	0.0223
CBDVA	ND	ND	0.00375	0.0223
CBDV	ND	ND	0.0107	0.0223
CBD	ND	ND	0.00432	0.0558
Δ9-THCV	ND	ND	0.00301	0.0223
Δ8-THCV	ND	ND	0.00544	0.0223
CBN	ND	ND	0.00382	0.0279
Exo-THC	ND	ND	0.00446	0.0223
Δ8-THC	ND	ND	0.00977	0.0279
CBL	ND	ND	0.00660	0.0223
CBC	ND	ND	0.00264	0.0223
<b>Total THC</b>	<b>24.0</b>	<b>240</b>		
<b>Total CBD</b>	<b>0.0776</b>	<b>0.776</b>		
<b>Total Cannabinoids</b>	<b>29.0</b>	<b>290</b>		

**Total THC** = Δ9-THC + (THCA-A x 0.877)

**Total CBD** = CBD + (CBDA x 0.877)

**Total Cannabinoids** = Sum of all cannabinoids without THC/CBD corrections.

**LOD** = Limit of Detection; **LOQ** = Limit of Quantitation; **ND** = Not Detected.

# Certificate of Analysis

## Terpenes Extended

**Date Started:** 03/14/2024  
**Instrument:** GC-MS

**Date Completed:** 03/18/2024  
**Method:** TP-09.004.03

**Analyst:** Yueming Wang Kovaleff  
**Deviation:** N/A

Terpene	Result (%)	Result (mg/g)	LOD (%)	LOQ (%)
beta-Myrcene	0.885	8.85	0.000937	0.00558
D-Limonene	0.759	7.59	0.00118	0.00558
E-Caryophyllene	0.200	2.00	0.00245	0.00558
Linalool	0.138	1.38	0.00170	0.00558
beta-Pinene	0.100	1.00	0.00116	0.00558
alpha-Humulene	0.0878	0.878	0.00120	0.00558
alpha-Terpineol	0.0868	0.868	0.00211	0.00558
alpha-Pinene	0.0722	0.722	0.000469	0.00558
Endo-Fenchyl Alcohol	0.0714	0.714	0.00186	0.00558
alpha-Bisabolol	0.0492	0.492	0.00207	0.00558
E-beta-Ocimene	0.0231	0.231	0.00231	0.00558
Z-beta-Ocimene	0.0210	0.210	0.00226	0.00558
Camphene	0.0186	0.186	0.000616	0.00558
[+/-]-Borneol	0.0160	0.160	0.00216	0.0112
Terpinolene	0.0158	0.158	0.000696	0.00558
[+/-]-Fenchone	<LOQ	<LOQ	0.00124	0.0112
Carophyllene Oxide	0.00598	0.0598	0.00126	0.00558
Eucalyptol	<LOQ	<LOQ	0.00169	0.00558
gamma-Terpineol	ND	ND	0.00100	0.00558
Isopulegol	ND	ND	0.00270	0.00558
Nerol	ND	ND	0.00176	0.00558
Geraniol	ND	ND	0.00174	0.00558
Pulegone	ND	ND	0.00212	0.00558
Valencene	ND	ND	0.00147	0.00558
Z-Nerolidol	ND	ND	0.00151	0.00558
E-Nerolidol	ND	ND	0.00127	0.00558
Guaiol	ND	ND	0.00121	0.00558
Sabinene	ND	ND	0.00190	0.00558
alpha-Phellandrene	ND	ND	0.000870	0.00558
Sabinene Hydrate	ND	ND	0.00187	0.00558
Isoborneol	ND	ND	0.00120	0.00558
Menthol	ND	ND	0.00186	0.00558
alpha-Cedrene	ND	ND	0.00169	0.00558
Geranyl Acetate	ND	ND	0.00262	0.00558
Cedrol	ND	ND	0.00227	0.00558
[+,N,-]-Camphor	ND	ND	0.00412	0.0167
delta-3-Carene	ND	ND	0.00182	0.00558
alpha-Terpinene	ND	ND	0.00171	0.00558
gamma-Terpinene	ND	ND	0.00126	0.00558
<b>Total Terpenes</b>	<b>2.56</b>	<b>25.6</b>		

## Heavy Metals

 **PASS**

**Date Started:** 03/15/2024  
**Instrument:** ICP-MS

**Date Completed:** 03/18/2024  
**Method:** TP-09.007.01

**Analyst:** Meagan Mattos  
**Deviation:** N/A

Heavy Metals	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status
Arsenic	<LOQ	7.12	48.1	200	Pass
Cadmium	ND	4.27	48.1	200	Pass
Lead	<LOQ	3.93	48.1	500	Pass
Mercury	ND	3.43	24.1	100	Pass

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## Certificate of Analysis

## Microbial Impurities

✓ PASS

Date Started: 03/14/2024  
Instrument: TEMPO & Gene-UpDate Completed: 03/18/2024  
Method: TP-09.010.01 & TP-09.011.01Analyst: Meagan Mattos  
Deviation: N/A

Microbials	Result (CFU/g)	Limit (CFU/g)	Status
Coliforms	ND	1000	Pass
Bile-Tolerant Gram-Negative Bacteria	ND	1000	Pass
Yeast & Mold	210	10000	Pass
Aerobic Bacteria	ND	100000	Pass
E.coli	ND		Pass
Salmonella	ND		Pass

## Mycotoxins

✓ PASS

Date Started: 03/15/2024  
Instrument: LC-MS/MSDate Completed: 03/18/2024  
Method: TP-09.009.04Analyst: Yuemin Wang Kovaleff  
Deviation: N/A

Mycotoxins	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status
Aflatoxin B1	ND	1.93	4.75		
Aflatoxin B2	ND	0.382	3.56		
Aflatoxin G1	ND	0.397	3.56		
Aflatoxin G2	ND	1.01	4.75		
Ochratoxin A	ND	1.10	3.56		
Total Mycotoxins	ND	0.382	3.56	20.0	Pass

## Pesticides

✓ PASS

Date Started: 03/15/2024  
Instrument: LC-MS/MS & GC-MS/MSDate Completed: 03/18/2024  
Method: TP-09.008.02 & TP-09.009.04Analyst: Yuemin Wang Kovaleff  
Deviation: N/A

Pesticide	Result (ppb)	LOD (ppb)	LOQ (ppb)	Limit (ppb)	Status
Bifenazate	ND	0.589	3.56	10.0	Pass
Bifenthrin	ND	1.25	3.56	10.0	Pass
Cyfluthrin	ND	0.473	2.97	10.0	Pass
Etoxazole	ND	0.865	3.56	10.0	Pass
Imazalil	ND	0.888	3.56	10.0	Pass
Imidacloprid	ND	0.416	3.56	10.0	Pass
Myclobutanil	ND	0.976	3.56	10.0	Pass
Spiromesifen	ND	1.04	3.56	10.0	Pass
Trifloxystrobin	ND	0.549	3.56	10.0	Pass

Eric Steele, Lab Director  
03/19/2024

END OF REPORT

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