Hemp Quality Assurance Testing

CERTIFICATE OF ANALYSIS

DATE ISSUED 10/07/2020

SAMPLE NAME: Sour G - Full Panel

Flower, Inhalable

CULTIVATOR / MANUFACTURER

Business Name:
License Number:
Address:

DISTRIBUTOR

Business Name:
License Number:

Address:

SAMPLE DETAIL

Batch Number:
Sample ID: 201005R006

Date Collected: 10/05/2020
Date Received: 10/05/2020
Batch Size:
Sample Size: 1.0 Gram(s)
Unit Mass:
Serving Size:

Scan QR code to verify authenticity of results.

CANNABINOID ANALYSIS - SUMMARY

Total THC: 0.1%

Total CBD: Not Detected

Sum of Cannabinoids: 14.696%

Total Cannabinoids: 12.89%

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:
Total THC = Δ9THC + (THCa (0.877))
Total CBD = CBD + (CBDa (0.877))
Sum of Cannabinoids = Δ9THC + THCa + CBD + CBDa + CBG + CBGa + THCV + THCVa + CBC + CBCa + CBDV + CBDVa + Δ8THC + CBL + CBN
Total Cannabinoids = (Δ9THC+0.877*THCa) + (CBD+0.877*CBDa) + (CBG+0.877*CBGa) + (THCV+0.877*THCVa) + (CBC+0.877*CBCa) + (CBDV+0.877*CBDVa) + Δ8THC + CBL + CBN

Moisture: NT

Density: NT

Viscosity: NT

SAFETY ANALYSIS - SUMMARY

Pesticides: PASS

Heavy Metals: PASS

Foreign Material: NT

Mycotoxins: NT

Microbial Impurities (PCR): NT

Water Activity: NT

Residual Solvents: NT

Microbial Impurities (Plating): NT

Vitamin E Acetate: NT

TERPENOID ANALYSIS - SUMMARY

35 TESTED, TOP 3 HIGHLIGHTED

- Guaiol 1.51 mg/g
- α Bisabolol 0.7 mg/g
- Myrcene 0.6 mg/g

For quality assurance purposes. Not a Pre-Harvest Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

Sample Certification: California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

Decision Rule: Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS – Results within limits/specifications, FAIL – Results exceed limits/specifications.

References: limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)

LQC verified by: Reza Naemeh
Date: 10/07/2020

Approved by: Josh Wurzer, President
Date: 10/07/2020

Cannabinoid Analysis

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP - (1157) Analysis of Cannabinoids by HPLC-DAD

TOTAL THC: 0.1%
Total THC (Δ9THC+0.877*THCa)

TOTAL CBD: Not Detected
Total CBD (CBD+0.877*CBDa)

TOTAL CANNABINOIDS: 12.89%
Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) + Δ8THC + CBL + CBN

TOTAL CBG: 12.44%
Total CBG (CBG+0.877*CBGa)

TOTAL THCV: <LOQ
Total THCV (THCV+0.877*THCVa)

TOTAL CBC: 0.35%
Total CBC (CBC+0.877*CBCa)

TOTAL CBDV: ND
Total CBDV (CBDV+0.877*CBDVa)

CANNABINOID TEST RESULTS - 10/07/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
CBGa	*0.1 / 0.4*	*±9.75*	140.9	14.09
CBCa	*0.1 / 0.4*	*±0.35*	4.0	0.40
THCa	*0.04 / 0.12*	*±0.052*	1.26	0.126
CBG	*0.2 / 0.5*	*±0.07*	0.8	0.08
THCVa	*0.05 / 0.15*	*N/A*	<LOQ	<LOQ
Δ9THC	*0.1 / 0.4*	*N/A*	ND	ND
Δ8THC	*0.05 / 0.15*	*N/A*	ND	ND
THCV	*0.07 / 0.21*	*N/A*	ND	ND
CBD	*0.1 / 0.3*	*N/A*	ND	ND
CBDa	*0.06 / 0.17*	*N/A*	ND	ND
CBDV	*0.1 / 0.3*	*N/A*	ND	ND
CBDVa	*0.02 / 0.06*	*N/A*	ND	ND
CBL	*0.1 / 0.4*	*N/A*	ND	ND
CBN	*0.07 / 0.20*	*N/A*	ND	ND
CBC	*0.1 / 0.2*	*N/A*	ND	ND
SUM OF CANNABINOIDS			146.96 mg/g	14.696%

MOISTURE TEST RESULT	DENSITY TEST RESULT	VISCOSITY TEST RESULT
Not Tested	Not Tested	Not Tested

Terpenoid Analysis

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

Method: QSP - (1192) Analysis of Terpenoids by GC-FID

1 Guaiol
A sesquiterpene alcohol with a fragrance that can be described as floral, piney, herbal and woody. Found in guaiacum, cypress pine, ginseng, melaleuca, goatweed, incense grass...etc.

2 α Bisabolol
A sesquiterpene alcohol with a fragrance that can be described as floral, peppery, sweet and clean. Found in chamomile, figwort, yarrow, skullcaps, lavender, ironwort, germander...etc.

3 Myrcene
A monoterpene with a fragrance that can be described as peppery, spicy, herbal, floral and woody. Although it has a pleasant odor, it is typically used by the perfume industry as precursor for developing other fragrances. Found in hops, houttuynia, bay, thyme, lemon grass, mango, verbena, cardamom, citrus...etc.

TERPENOID TEST RESULTS - 10/07/2020

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Guaiol	*0.04 / 0.13*	*±0.068*	**1.51**	**0.151**
α Bisabolol	*0.1 / 0.2*	*±0.05*	**0.7**	**0.07**
Myrcene	*0.1 / 0.2*	*±0.03*	**0.6**	**0.06**
Limonene	*0.04 / 0.12*	*±0.030*	**0.57**	**0.057**
β Caryophyllene	*0.04 / 0.11*	*±0.020*	**0.55**	**0.055**
Terpineol	*0.03 / 0.1*	*N/A*	**<LOQ**	**<LOQ**
α Cedrene	*0.03 / 0.10*	*N/A*	**<LOQ**	**<LOQ**
Nerolidol	*0.03 / 0.09*	*N/A*	**<LOQ**	**<LOQ**
α Pinene	*0.04 / 0.13*	*N/A*	**ND**	**ND**
Camphene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Sabinene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
β Pinene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
α Phellandrene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
3 Carene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
α Terpinene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Eucalyptol	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Ocimene	*0.05 / 0.1*	*N/A*	**ND**	**ND**
γ Terpinene	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Sabinene Hydrate	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Fenchone	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Terpinolene	*0.04 / 0.1*	*N/A*	**ND**	**ND**
Linalool	*0.04 / 0.1*	*N/A*	**ND**	**ND**
Fenchol	*0.1 / 0.2*	*N/A*	**ND**	**ND**
(-)-Isopulegol	*0.03 / 0.08*	*N/A*	**ND**	**ND**
Camphor	*0.1 / 0.3*	*N/A*	**ND**	**ND**
Isoborneol	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Borneol	*0.1 / 0.3*	*N/A*	**ND**	**ND**
Menthol	*0.04 / 0.1*	*N/A*	**ND**	**ND**
Nerol	*0.05 / 0.1*	*N/A*	**ND**	**ND**
R-(+)-Pulegone	*0.04 / 0.1*	*N/A*	**ND**	**ND**
Geraniol	*0.04 / 0.11*	*N/A*	**ND**	**ND**
Geranyl Acetate	*0.03 / 0.10*	*N/A*	**ND**	**ND**
α Humulene	*0.03 / 0.08*	*N/A*	**ND**	**ND**
Valencene	*0.02 / 0.06*	*N/A*	**ND**	**ND**
Caryophyllene Oxide	*0.1 / 0.2*	*N/A*	**ND**	**ND**
Cedrol	*0.1 / 0.2*	*N/A*	**ND**	**ND**
TOTAL TERPENOIDS			**3.93 mg/g**	**0.393%**

Pesticide Analysis

CATEGORY 1 AND 2 PESTICIDES

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). *GC-MS utilized where indicated.

Method: QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS or QSP - (1213) Analysis of Pesticides by GC-MS

CATEGORY 1 PESTICIDE TEST RESULTS - 10/07/2020 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Aldicarb	*0.03 / 0.09*	*≥ LOD*	*N/A*	ND	PASS
Carbofuran	*0.01 / 0.04*	*≥ LOD*	*N/A*	ND	PASS
Chlordane*	*0.03 / 0.08*	*≥ LOD*	*N/A*	ND	PASS
Chlorfenapyr*	*0.03 / 0.10*	*≥ LOD*	*N/A*	ND	PASS
Chlorpyrifos	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Coumaphos	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Daminozide	*0.03 / 0.10*	*≥ LOD*	*N/A*	ND	PASS
DDVP (Dichlorvos)	*0.02 / 0.07*	*≥ LOD*	*N/A*	ND	PASS
Dimethoate	*0.02 / 0.07*	*≥ LOD*	*N/A*	ND	PASS
Ethoprop(hos)	*0.03 / 0.08*	*≥ LOD*	*N/A*	ND	PASS
Etofenprox	*0.02 / 0.05*	*≥ LOD*	*N/A*	ND	PASS
Fenoxycarb	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Fipronil	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Imazalil	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Methiocarb	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Methyl parathion	*0.03 / 0.10*	*≥ LOD*	*N/A*	ND	PASS
Mevinphos	*0.03 / 0.09*	*≥ LOD*	*N/A*	ND	PASS
Paclobutrazol	*0.02 / 0.05*	*≥ LOD*	*N/A*	ND	PASS
Propoxur	*0.02 / 0.06*	*≥ LOD*	*N/A*	ND	PASS
Spiroxamine	*0.02 / 0.05*	*≥ LOD*	*N/A*	ND	PASS
Thiacloprid	*0.03 / 0.07*	*≥ LOD*	*N/A*	ND	PASS

CATEGORY 2 PESTICIDE TEST RESULTS - 10/07/2020 PASS

Abamectin	*0.03 / 0.10*	*0.1*	*N/A*	ND	PASS
Acephate	*0.01 / 0.04*	*0.1*	*N/A*	ND	PASS
Acequinocyl	*0.02 / 0.05*	*0.1*	*N/A*	ND	PASS
Acetamiprid	*0.02 / 0.05*	*0.1*	*N/A*	ND	PASS
Azoxystrobin	*0.01 / 0.04*	*0.1*	*N/A*	ND	PASS
Bifenazate	*0.01 / 0.02*	*0.1*	*N/A*	ND	PASS
Bifenthrin	*0.01 / 0.02*	*3*	*N/A*	ND	PASS
Boscalid	*0.02 / 0.06*	*0.1*	*N/A*	ND	PASS
Captan	*0.2 / 0.5*	*0.7*	*N/A*	ND	PASS
Carbaryl	*0.01 / 0.02*	*0.5*	*N/A*	ND	PASS
Chlorantraniliprole	*0.01 / 0.03*	*10*	*N/A*	ND	PASS

Continued on next page

Pesticide Analysis *Continued*

CATEGORY 1 AND 2 PESTICIDES

Pesticide and plant growth regulator analysis utilizing high-performance liquid chromatography-mass spectrometry (HPLC-MS) or gas chromatography-mass spectrometry (GC-MS). *GC-MS utilized where indicated.

Method: QSP - (1212) Analysis of Pesticides and Mycotoxins by LC-MS or QSP - (1213) Analysis of Pesticides by GC-MS

CATEGORY 2 PESTICIDE TEST RESULTS - 10/07/2020 *continued* ✓ PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Clofentezine	0.02 / 0.06	0.1	N/A	ND	PASS
Cyfluthrin	0.1 / 0.4	2	N/A	ND	PASS
Cypermethrin	0.1 / 0.3	1	N/A	ND	PASS
Diazinon	0.01 / 0.04	0.1	N/A	ND	PASS
Dimethomorph	0.01 / 0.03	2	N/A	ND	PASS
Etoxazole	0.010 / 0.028	0.1	N/A	ND	PASS
Fenhexamid	0.02 / 0.1	0.1	N/A	ND	PASS
Fenpyroximate	0.03 / 0.08	0.1	N/A	ND	PASS
Flonicamid	0.01 / 0.04	0.1	N/A	ND	PASS
Fludioxonil	0.03 / 0.08	0.1	N/A	ND	PASS
Hexythiazox	0.01 / 0.04	0.1	N/A	ND	PASS
Imidacloprid	0.01 / 0.04	5	N/A	ND	PASS
Kresoxim-methyl	0.02 / 0.07	0.1	N/A	ND	PASS
Malathion	0.02 / 0.05	0.5	N/A	ND	PASS
Metalaxyl	0.02 / 0.06	2	N/A	ND	PASS
Methomyl	0.03 / 0.1	1	N/A	ND	PASS
Myclobutanil	0.03 / 0.1	0.1	N/A	ND	PASS
Naled	0.03 / 0.1	0.1	N/A	ND	PASS
Oxamyl	0.02 / 0.06	0.5	N/A	ND	PASS
Pentachloronitrobenzene*	0.03 / 0.09	0.1	N/A	ND	PASS
Permethrin	0.03 / 0.09	0.5	N/A	ND	PASS
Phosmet	0.03 / 0.10	0.1	N/A	ND	PASS
Piperonylbutoxide	0.003 / 0.009	3	N/A	ND	PASS
Prallethrin	0.03 / 0.08	0.1	N/A	ND	PASS
Propiconazole	0.01 / 0.03	0.1	N/A	ND	PASS
Pyrethrins	0.03 / 0.08	0.5	N/A	ND	PASS
Pyridaben	0.006 / 0.019	0.1	N/A	ND	PASS
Spinetoram	0.02 / 0.07	0.1	N/A	ND	PASS
Spinosad	0.02 / 0.06	0.1	N/A	ND	PASS
Spiromesifen	0.02 / 0.05	0.1	N/A	ND	PASS
Spirotetramat	0.01 / 0.02	0.1	N/A	ND	PASS
Tebuconazole	0.02 / 0.07	0.1	N/A	ND	PASS
Thiamethoxam	0.03 / 0.08	5	N/A	ND	PASS
Trifloxystrobin	0.01 / 0.03	0.1	N/A	ND	PASS

Heavy Metals Analysis

Heavy metal analysis utilizing inductively coupled plasma-mass spectrometry (ICP-MS).

Method: QSP - (1160) Analysis of Heavy Metals by ICP-MS

HEAVY METALS TEST RESULTS - 10/06/2020 PASS

COMPOUND	LOD/LOQ (µg/g)	ACTION LIMIT (µg/g)	MEASUREMENT UNCERTAINTY (µg/g)	RESULT (µg/g)	RESULT
Cadmium	*0.02 / 0.05*	*0.2*	*N/A*	<LOQ	PASS
Lead	*0.04 / 0.1*	*0.5*	*±0.00*	0.1	PASS
Arsenic	*0.02 / 0.1*	*0.2*	*N/A*	<LOQ	PASS
Mercury	*0.002 / 0.01*	*0.1*	*N/A*	<LOQ	PASS