

February 01, 2021

**AMERICAN CUSTOM TECHNOLOGIES**  
2625 Temple Heights Dr., Suite C  
Oceanside, CA 92056

Order No. 519722  
Sample No. 1071282

## SAMPLE INFORMATION

Description **Pure Ratios CBD Patch 40mg**  
Lot Number **Lot # 15472**  
Category **Non-Inhalable Topical**  
Received **January 29, 2021**

## ANALYTICAL RESULTS

Analysis **Cannabinoid Profile**  
Instrument **Liquid Chromatography Diode Array Detector (LC-DAD)**  
Method **MF12D012**  
Analysis Date **January 29, 2021 to February 01, 2021**

Cannabinoid	mg/g	%	mg/serving
Δ8-THC	ND	ND	ND
Δ9-THC	<LOQ	<LOQ	<LOQ
Δ9-THCA	ND	ND	ND
THCV	ND	ND	ND
THCVA	ND	ND	ND
CBD	84.81	8.481	47.98
CBDa	ND	ND	ND
CBC	1.15	0.115	0.65
CBCa	ND	ND	ND
CBDV	0.62	0.062	0.35
CBC	<LOQ	<LOQ	<LOQ
CBGA	ND	ND	ND
CBN	0.87	0.087	0.49
Total THC	ND	ND	ND
Total CBD	84.81	8.481	47.98
Total Cannabinoids	87.45	8.745	49.48
Total Active Cannabinoids	87.45	8.745	49.48
Measured Serving Weight (g)	0.5658		

Reported by  
**Anresco, Inc.**



Eric Tam  
Senior Chemist

February 01, 2021

Limit of Detection: 0.1 mg/g  
Limit of Quantitation: 0.4 mg/g  
ND = None Detected  
<LOQ = Below Limit of Quantitation  
<LOD = Below Limit of Detection

If there are any questions with this report, please contact "[compliance@anresco.com](mailto:compliance@anresco.com)".

certificate ID  
**2MQ21**

Nature's Distribution  
**Pure Ratios 25mL Salve PRR0001**

**7USC1639 Certificate of Analysis**



Lot301620135

issue date 12/25/22 1:31 PM

**Stillwater  
Laboratories**

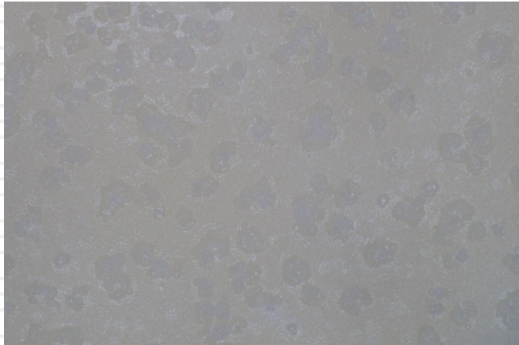
15783  
order

total cannabinoids  
**89.7mg**  
per 25.00g  
25mL

total THC‡ ND  
total CBD‡ 88.2mg

**Incoming Inspection** MSP-7.5.1.2

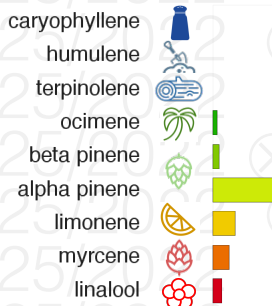
DESCRIPTION: Topical sample (25.00g) received 12/22/2022 11:40:41 AM in a client-labeled jar, by commercial courier per Method 7.3.1.1. and as described in the Montana METRC Lab User Guide. 1 per container. Labeled Lot301620135.



SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Potency	MSP-7.5.1.4	per 25mL	LOD	LOQ	error
total cannabinoids	0.359%	89.7mg	0.11	0.32	±1.92mg
total THC‡	ND	ND	0.11	0.32	±0.32mg
total THC (THC+THCa)	ND	ND	0.11	0.32	±0.32mg
total CBD‡	0.353%	88.2mg	0.11	0.32	±1.90mg
total CBD (CBD+CBDA)	0.353%	88.2mg	0.11	0.32	±1.90mg
tetrahydrocannabinolic acid (THCa)	ND	ND	0.11	0.32	±0.32mg
Δ9-tetrahydrocannabinol (Δ9 THC)	ND	ND	0.10	0.30	±0.30mg
Δ8-tetrahydrocannabinol (Δ8 THC)*	ND	ND	0.14	0.41	±0.41mg
tetrahydrocannabivarin (THCv)	ND	ND	0.11	0.34	±0.34mg
cannabidiolic acid (CBDA)	ND	ND	0.09	0.28	±0.28mg
cannabidiol (CBD)	0.353%	88.2mg	0.11	0.32	±1.90mg
cannabidivarin (CBDv)	ND	ND	0.11	0.32	±0.32mg
cannabigerolic acid (CBGA)	ND	ND	0.10	0.29	±0.29mg
cannabigerol (CBG)	0.006%	1.5mg	0.03	0.09	±0.12mg
cannabinol (CBN)	ND	ND	0.06	0.18	±0.18mg
cannabichromene (CBC)	ND	ND	0.11	0.32	±0.32mg

Terpenes	MSP-7.5.1.6	LOD	LOQ	error
total terpenes	0.259%	0.0006	0.0019	±0.0069%
linalool	0.017%	<0.0010	0.0009	±0.0012%
β-myrcene	0.031%	0.0007	0.0020	±0.0026%
D-limonene	0.042%	<0.0010	0.0012	±0.0020%
α-pinene	0.115%	<0.0010	0.0008	±0.0030%
β-pinene	0.011%	0.0006	0.0017	±0.0019%
ocimene	0.007%	0.0011	0.0034	±0.0036%
terpinolene	<LOQ	0.0008	0.0024	±0.0025%
α-humulene	ND	0.0005	0.0016	±0.0017%
β-caryophyllene	<LOQ	0.0015	0.0046	±0.0046%
α-bisabolol	ND	0.0012	0.0037	±0.0037%
camphene	0.006%	0.0007	0.0021	±0.0022%
Δ3-carene	0.011%	0.0030	0.0091	±0.0093%
caryophyllene oxide	ND	0.0020	0.0059	±0.0059%
para-cymene	<LOQ	0.0115	0.0346	±0.0348%
eucalyptol	ND	0.0016	0.0048	±0.0048%
geraniol	ND	0.0048	0.0145	±0.0145%
guaiaol	ND	0.0015	0.0046	±0.0046%
isopulegol	ND	0.0015	0.0045	±0.0045%
cis-nerolidol	ND	0.0026	0.0077	±0.0077%
trans-nerolidol	ND	0.0013	0.0039	±0.0039%
α-terpinene	ND	0.0008	0.0024	±0.0024%



**Pass / Fail Criteria**

**Microbial** MSP-7.5.1.10b  
FAIL: no failures  
PASS: Salmonella (PCR), STEC (PCR), A. flavus (PCR), A. fumigatus (PCR), A. terreus (PCR), A. niger (PCR)

**Mycotoxins** MSP-7.5.1.8  
FAIL: no failures  
PASS: Ochratoxin A, Aflatoxin B1B2G1G2, Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2

**Moisture** MSP-7.5.1.3  
not required / not requested

**Metals** MSP-7.5.1.7  
FAIL: no failures  
PASS: Arsenic, Cadmium, Lead, Mercury

**Pesticides** MSP-7.5.1.8  
FAIL: Prallethrin  
PASS: Abamectin, Acephate, Acequinocyl, Acetamiprid, Aldicarb, Azoxystrobin, Bifenazate, Bifenthrin, Boscalid, Carbaryl, Carbofuran, Chloanthraniliprole, Chlorpyrifos, Clofentezine, Coumaphos, Cyfluthrin, Cypermethrin, Daminozide, Dichlorvos, Diazinon, Dimethoate, Etoxazole, Fenoxycarb, Fenpyroximate, Fipronil, Flonicamid, Fludioxonil, Hexythiazox, Imazalil, Imidacloprid, Malathion, Metalaxyl, Methiocarb, Methomyl, Mevinphos, Myclobutanil, Naled, Oxamyl, Pacllobutrazol, Permethrin, Phosmet, Piperonylbutoxide, Propiconazole, Propoxur, Pyrethrin, Pyridaben, Spinetoram, Spinosad, Spiromesifen, Spirotetramat, Spiroxamine, Tebuconazole, Thiocloprid, Thiamethoxam, Trifloxystrobin

**Solvents** MSP-7.5.1.7  
FAIL: no failures  
PASS: Acetone, Acetonitrile, Benzene, Butane, Chloroform, Cyclohexane, Ethanol, Ethyl acetate, Heptane, Hexane, Isopropyl alcohol, Methanol, Pentane, Propane, Toluene, Xylenes

These results are only valid for the samples tested. • Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> x volume<sub>dilution</sub>/m<sub>dry</sub>. •• Decarboxyated cannabinoid concentration is calculated XXX<sub>total</sub> = 0.877 x XXX<sub>a</sub> + XXX ••• Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s<sub>g</sub><sup>2</sup> = Σ (∂f/∂i)<sup>2</sup> s<sub>i</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t<sub>CL90</sub> x s<sub>g</sub>. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed, \* = analyte is off-scope.

Certified by:



Stillwater Laboratories Inc.  
MT License L100060-002  
6073 US93N Suite 5, Olney MT 59927  
Ph 406-881-2019. www.stwllabs.com

certificate ID

2MQ21



15783  
order

Nature's Distribution

Pure Ratios 25mL Salve PRR0001

Lot301620135

order 15783  
rec'd date 12/22/2022 11:40:41 AM  
issue date 12/25/2022 1:31:09 PM

ANALYTICAL DATA

Report Version: 1  
Analysis Location: L-100060-

Stillwater  
Laboratories

Methods and Instruments

MSP-7.3.1.1	BAL-05	12/22/2022	MSP-7.5.1.7	QP2020/HS20	12/23/2022	L-100060-002
MSP-7.5.1.2	YSC HD801m12	12/23/2022	MSP-7.5.1.8	LCMS8060	12/23/2022	
MSP-7.5.1.3	6MOC63u	12/23/2022	MSP-7.5.1.8	LCMS8060	12/23/2022	
MSP-7.5.1.4	LC-2030C	12/23/2022	MSP-7.5.1.10b	Aria MX	12/23/2022	
MSP-7.5.1.6	QP2020/HS20	12/23/2022	MSP-7.5.1.11	ICPMS2030	12/23/2022	

Mycotoxins

MSP-7.5.1.8	limit	LOD	LOQ	error	result
Ochratoxin A	ND	20 ppb	0.3	1.0   0.9   ±0.9 ppb	PASS
Aflatoxin B1B2G1G2	ND	20 ppb	0.3	1.0   1.0   ±1.0 ppb	PASS

Microbial

MSP-7.5.1.10b	limit	LOD	LOQ	error	result
Salmonella (PCR)	ND	0CFU	0.1	0.2   ±0.2CFU	PASS
STEC (PCR)	ND	0CFU	3.6	10.8   ±10.8CFU	PASS
A. flavus (PCR)	ND	0CFU	3.6	10.8   ±10.8CFU	PASS
A. fumigatus (PCR)	ND	0CFU	3.6	10.8   ±10.8CFU	PASS
A. terreus (PCR)	ND	0CFU	3.6	10.8   ±10.8CFU	PASS
A. niger (PCR)	ND	0CFU	3.6	10.8   ±10.8CFU	PASS

Solvents

MSP-7.5.1.7	limit	LOD	LOQ	error	result
Acetone	ND	5000 ppm	0.7	2.0   ±2.0 ppm	PASS
Acetonitrile	ND	410 ppm	0.6	1.8   ±1.8 ppm	PASS
Benzene	ND	0 ppm	0.0	0.1   ±0.1 ppm	PASS
Butane	ND	5000 ppm	1.3	4.0   ±4.0 ppm	PASS
Chloroform	ND	0 ppm	0.1	0.2   ±0.2 ppm	PASS
Cyclohexane	ND	0 ppm	0.5	1.5   ±1.5 ppm	PASS
Ethanol	3 ppm	10000 ppm	0.7	2.0   ±2.1 ppm	PASS
Ethyl acetate	ND	5000 ppm	0.0	0.1   ±0.1 ppm	PASS
Heptane	ND	5000 ppm	0.4	1.2   ±1.2 ppm	PASS
Hexane	ND	290 ppm	0.5	1.5   ±1.5 ppm	PASS
Isopropyl alcohol	ND	5000 ppm	0.6	1.8   ±1.8 ppm	PASS
Methanol	ND	3000 ppm	0.5	1.5   ±1.5 ppm	PASS
Methylene chloride	NT	0 ppm			NA
Pentane	ND	5000 ppm	0.2	0.5   ±0.5 ppm	PASS
Propane	ND	5000 ppm	0.5	1.5   ±1.5 ppm	PASS
Toluene	ND	890 ppm	0.3	0.9   ±0.9 ppm	PASS
Xylenes	ND	2170 ppm	0.3	1.0   ±1.0 ppm	PASS

Metals

MSP-7.5.1.7	limit	LOD	LOQ	error	result
Arsenic	ND	1500 ppb	5.6	16.8   ±16.8 ppb	PASS
Cadmium	ND	500 ppb	6.0	18.1   ±18.1 ppb	PASS
Lead	ND	500 ppb	9.4	28.2   ±28.2 ppb	PASS
Mercury	ND	300 ppb	4.7	14.2   ±14.2 ppb	PASS

These results are only valid for the samples tested. • Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula  $s_g^2 = \sum (\partial f/\partial i)^2 s_i^2$  where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ±  $t_{CL90} \times s_g$ . Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable.

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Pesticides

MSP-7.5.1.8	limit	LOD	LOQ	error	result
Abamectin	ND	0.30 ppm	0.005	0.016   ±0.016 ppm	PASS
Acephate	ND	5.00 ppm	0.006	0.017   ±0.017 ppm	PASS
Acetaminophen	ND	4.00 ppm	0.005	0.014   ±0.014 ppm	PASS
Acetamiprid	ND	5.00 ppm	0.004	0.011   ±0.011 ppm	PASS
Aldicarb	ND	0.00 ppm	0.002	0.005   ±0.005 ppm	PASS
Azoxystrobin	ND	40.00 ppm	0.001	0.004   ±0.004 ppm	PASS
Bifenazate	ND	5.00 ppm	0.001	0.004   ±0.004 ppm	PASS
Bifenthrin	ND	0.50 ppm	0.001	0.002   ±0.002 ppm	PASS
Boscalid	ND	10.00 ppm	0.015	0.046   ±0.046 ppm	PASS
Carbaryl	ND	0.50 ppm	0.006	0.018   ±0.018 ppm	PASS
Carbofuran	ND	0.00 ppm	0.001	0.004   ±0.004 ppm	PASS
Chloanthraniliprole	ND	40.00 ppm	0.015	0.044   ±0.044 ppm	PASS
Chlorfenapyr	NT	0.00 ppm			NA
Chlorpyrifos	ND	0.00 ppm	0.031	0.092   ±0.092 ppm	PASS
Clofentazine	ND	0.50 ppm	0.006	0.017   ±0.017 ppm	PASS
Coumaphos	ND	0.00 ppm	0.004	0.012   ±0.012 ppm	PASS
Cyfluthrin	ND	1.00 ppm	0.006	0.017   ±0.017 ppm	PASS
Cypermethrin	ND	1.00 ppm	0.004	0.012   ±0.012 ppm	PASS
Daminozide	ND	0.00 ppm	0.021	0.063   ±0.063 ppm	PASS
Dichlorvos	ND	0.00 ppm	0.011	0.032   ±0.032 ppm	PASS
Diazinon	ND	0.20 ppm	0.001	0.003   ±0.003 ppm	PASS
Dimethoate	ND	0.00 ppm	0.002	0.005   ±0.005 ppm	PASS
Etoxazole	ND	1.50 ppm	0.003	0.008   ±0.008 ppm	PASS
Fenoxycarb	ND	0.00 ppm	0.003	0.008   ±0.008 ppm	PASS
Fenpyroximate	ND	2.00 ppm	0.001	0.003   ±0.003 ppm	PASS
Fipronil	ND	0.00 ppm	0.006	0.017   ±0.017 ppm	PASS
Flonicamid	ND	2.00 ppm	0.074	0.222   ±0.222 ppm	PASS
Fludioxonil	ND	30.00 ppm	0.005	0.015   ±0.015 ppm	PASS
Hexythiazox	ND	2.00 ppm	0.001	0.002   ±0.002 ppm	PASS
Imazalil	ND	0.00 ppm	0.005	0.015   ±0.015 ppm	PASS
Imidacloprid	ND	3.00 ppm	0.001	0.003   ±0.003 ppm	PASS
Malathion	ND	5.00 ppm	0.004	0.011   ±0.011 ppm	PASS
Metalaxyl	ND	15.00 ppm	0.006	0.017   ±0.017 ppm	PASS
Methiocarb	ND	0.00 ppm	0.003	0.008   ±0.008 ppm	PASS
Methomyl	ND	0.10 ppm	<0.001	0.001   ±0.001 ppm	PASS
Methyl Parathion	NT	0.00 ppm			NA
Mevinphos	ND	0.00 ppm	0.004	0.012   ±0.012 ppm	PASS
Myclobutanil	ND	9.00 ppm	0.001	0.002   ±0.002 ppm	PASS
Naled	ND	0.50 ppm	0.004	0.012   ±0.012 ppm	PASS
Oxamyl	ND	0.20 ppm	0.002	0.005   ±0.005 ppm	PASS
Paclobutrazol	ND	0.00 ppm	0.002	0.006   ±0.006 ppm	PASS
Permethrin	ND	20.00 ppm	0.007	0.022   ±0.022 ppm	PASS
Phosmet	ND	0.20 ppm	0.002	0.007   ±0.007 ppm	PASS
Piperonylbutoxide	ND	8.00 ppm	0.008	0.023   ±0.023 ppm	PASS
Prallethrin	2.73 ppm	0.40 ppm	0.003	0.008   ±0.008 ppm	FAIL
Propiconazole	ND	20.00 ppm	0.003	0.008   ±0.008 ppm	PASS
Propoxur	ND	0.00 ppm	0.004	0.013   ±0.013 ppm	PASS
Pyrethrin	ND	1.00 ppm	0.002	0.006   ±0.006 ppm	PASS
Pyridaben	ND	3.00 ppm	0.001	0.002   ±0.002 ppm	PASS
Spinetoram	ND	3.00 ppm	0.003	0.008   ±0.008 ppm	PASS
Spinosad	ND	3.00 ppm	0.005	0.015   ±0.015 ppm	PASS
Spiromesifen	ND	12.00 ppm	0.002	0.007   ±0.007 ppm	PASS
Spirotetramat	ND	13.00 ppm	0.002	0.005   ±0.005 ppm	PASS
Spiroxamine	ND	0.00 ppm	0.001	0.002   ±0.002 ppm	PASS
Tebuconazole	ND	2.00 ppm	0.004	0.011   ±0.011 ppm	PASS
Thiacloprid	ND	0.10 ppm	0.001	0.002   ±0.002 ppm	PASS
Thiamethoxam	ND	4.50 ppm	0.002	0.007   ±0.007 ppm	PASS
Trifloxystrobin	ND	30.00 ppm	0.002	0.005   ±0.005 ppm	PASS

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE



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1408 Unit 4 Gold Ave, Bozeman MT 59715  
Ph 406-881-2019. www.stwlab.com





15783 order

total cannabinoids per 4.00g stick 6.5mg

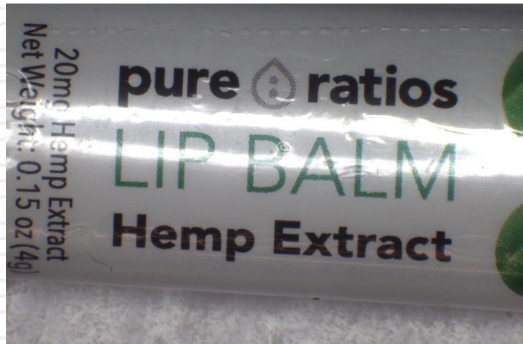
issue date 12/25/22 1:31 PM

total THC‡ ND total CBD‡ 6.4mg

Stillwater Laboratories

Incoming Inspection MSP-7.5.1.2

DESCRIPTION: Topical sample (4.00g) received 12/22/2022 11:40:41 AM in a client-labeled cosmetic container, collected at dispensary/grow. 1 per container. 1.



0.000 0.160 0.320 0.480 0.640

- caryophyllene humulene terpinolene ocimene beta pinene alpha pinene limonene myrcene linalool

0.000 0.160 0.320 0.480 0.640

Potency MSP-7.5.1.4 per stick

Table with columns: total cannabinoids, total THC, total CBD, and various cannabinoid/acid types with their respective concentrations and error ranges.

Terpenes MSP-7.5.1.6

Table with columns: total terpenes and various terpene types with their respective concentrations and error ranges.

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Pass / Fail Criteria

Microbial MSP-7.5.1.10b FAIL: no failures PASS: Salmonella (PCR), STEC (PCR), A. flavus (PCR), A. fumigatus (PCR), A. terreus (PCR), A. niger (PCR)

Mycotoxins MSP-7.5.1.8 FAIL: no failures PASS: Ochratoxin A, Aflatoxin B1B2G1G2, Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2

Moisture MSP-7.5.1.3 not required / not requested

Metals MSP-7.5.1.7 FAIL: no failures PASS: Arsenic, Cadmium, Lead, Mercury

Pesticides MSP-7.5.1.8 FAIL: no failures PASS: Abamectin, Acephate, Acequinocyl, Acetamiprid, Aldicarb, Azoxystrobin, Bifenazate, Bifenthrin, Boscalid, Carbaryl, Carbofuran, Chloanthraniliprole, Chlorpyrifos, Clofentezine, Coumaphos, Cyfluthrin, Cypermethrin, Daminozide, Dichlorvos, Diazinon, Dimethoate, Etoxazole, Fenoxycarb, Fenpyroximate, Fipronil, Fonicamid, Fludioxonil, Hexythiazox, Imazalil, Imidacloprid, Malathion, Metalaxyl, Methiocarb, Methomyl, Mevinphos, Myclobutanil, Naled, Oxamyl, Pacllobutrazol, Permethrin, Phosmet, Piperonylbutoxide, Prallethrin, Propiconazole, Propoxur, Pyrethrin, Pyridaben, Spinetoram, Spinosad, Spiromesifen, Spirotetramat, Spiroxamine, Tebuconazole, Thiacloprid, Thiamethoxam, Trifloxystrobin

Solvents MSP-7.5.1.7 FAIL: no failures PASS: Acetone, Acetonitrile, Benzene, Butane, Chloroform, Cyclohexane, Ethanol, Ethyl acetate, Heptane, Hexane, Isopropyl alcohol, Methanol, Pentane, Propane, Toluene, Xylenes

These results are only valid for the samples tested. Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]HPLC x volume dilution / m dry. Decarboxyated cannabinoid concentration is calculated XXXtotal = 0.877 x XXXa + XXX Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s9^2 = sum (df/di)^2 s9^2 where i is the contributor to error. The 95% confidence range is calculated from: (concentration) +/- tCL90 x S9. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed, \* = analyte is off-scope.

Certified by:

Signature



https://customer.a2la.org/index.cfm?event=directory.detail&labPID=423635B2-5128-4C6F-871A-419DCF43B0D7

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order 15783  
rec'd date 12/22/2022 11:40:41 AM  
issue date 12/25/2022 1:31:55 PM

Methods and Instruments

MSP-7.3.1.1	BAL-05	12/22/2022	MSP-7.5.1.7	QP2020/HS20	12/23/2022	L-100060-002
MSP-7.5.1.2	YSC HD801m12	12/23/2022	MSP-7.5.1.8	LCMS8060	12/23/2022	
MSP-7.5.1.3	6MOC63u	12/23/2022	MSP-7.5.1.8	LCMS8060	12/23/2022	
MSP-7.5.1.4	LC-2030C	12/23/2022	MSP-7.5.1.10b	Aria MX	12/23/2022	
MSP-7.5.1.6	QP2020/HS20	12/23/2022	MSP-7.5.1.11	ICPMS2030	12/23/2022	

Mycotoxins

MSP-7.5.1.8	limit	LOD	LOQ	error	result
Ochratoxin A	ND 20 ppb	0.3	0.9	±0.9 ppb	PASS
Aflatoxin B1B2G1G2	ND 20 ppb	0.3	0.9	±0.9 ppb	PASS

Microbial

MSP-7.5.1.10b	limit	LOD	LOQ	error	result
Salmonella (PCR)	ND 0CFU	0.0	1.1	±0.1CFU	PASS
STEC (PCR)	ND 0CFU	2.0	6.1	±6.1CFU	PASS
A. flavus (PCR)	ND 0CFU	2.0	6.1	±6.1CFU	PASS
A. fumigatus (PCR)	ND 0CFU	2.0	6.1	±6.1CFU	PASS
A. terreus (PCR)	ND 0CFU	2.0	6.1	±6.1CFU	PASS
A. niger (PCR)	ND 0CFU	2.0	6.1	±6.1CFU	PASS

Solvents

MSP-7.5.1.7	limit	LOD	LOQ	error	result
Acetone	ND 5000 ppm	0.5	1.6	±1.6 ppm	PASS
Acetonitrile	ND 410 ppm	0.5	1.5	±1.5 ppm	PASS
Benzene	ND 0 ppm	0.0	1.1	±0.1 ppm	PASS
Butane	ND 5000 ppm	1.1	3.3	±3.3 ppm	PASS
Chloroform	ND 0 ppm	0.1	0.2	±0.2 ppm	PASS
Cyclohexane	ND 0 ppm	0.4	1.3	±1.3 ppm	PASS
Ethanol	<LOQ 10000 ppm	0.6	1.7	±1.7 ppm	PASS
Ethyl acetate	ND 5000 ppm	0.0	1.1	±0.1 ppm	PASS
Heptane	ND 5000 ppm	0.3	1.0	±1.0 ppm	PASS
Hexane	ND 290 ppm	0.4	1.2	±1.2 ppm	PASS
Isopropyl alcohol	ND 5000 ppm	0.5	1.5	±1.5 ppm	PASS
Methanol	ND 3000 ppm	0.4	1.3	±1.3 ppm	PASS
Methylene chloride	NT 0 ppm				NA
Pentane	ND 5000 ppm	0.2	0.5	±0.5 ppm	PASS
Propane	ND 5000 ppm	0.4	1.3	±1.3 ppm	PASS
Toluene	ND 890 ppm	0.2	0.7	±0.7 ppm	PASS
Xylenes	ND 2170 ppm	0.3	0.8	±0.8 ppm	PASS

Metals

MSP-7.5.1.7	limit	LOD	LOQ	error	result
Arsenic	ND 1500 ppb	7.0	21.1	±21.1 ppb	PASS
Cadmium	ND 500 ppb	7.6	22.7	±22.7 ppb	PASS
Lead	216 ppb 500 ppb	11.8	35.4	±39.0 ppb	PASS
Mercury	ND 300 ppb	5.9	17.8	±17.8 ppb	PASS

These results are only valid for the samples tested. • Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula  $s_g^2 = \sum (\partial f/\partial i)^2 s_i^2$  where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ±  $t_{CL90} \times s_g$ . Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable.

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Pesticides

MSP-7.5.1.8	limit	LOD	LOQ	error	result
Abamectin	ND 0.30 ppm	0.005	0.015	±0.015 ppm	PASS
Acephate	ND 5.00 ppm	0.005	0.015	±0.015 ppm	PASS
Acequinocyl	ND 4.00 ppm	0.004	0.013	±0.013 ppm	PASS
Acetamiprid	ND 5.00 ppm	0.003	0.010	±0.010 ppm	PASS
Aldicarb	ND 0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Azoxystrobin	ND 40.00 ppm	0.001	0.004	±0.004 ppm	PASS
Bifenazate	ND 5.00 ppm	0.001	0.003	±0.003 ppm	PASS
Bifenthrin	ND 0.50 ppm	0.001	0.002	±0.002 ppm	PASS
Boscalid	ND 10.00 ppm	0.014	0.042	±0.042 ppm	PASS
Carbaryl	ND 0.50 ppm	0.006	0.017	±0.017 ppm	PASS
Carbofuran	ND 0.00 ppm	0.001	0.003	±0.003 ppm	PASS
Chloanthraniliprole	ND 40.00 ppm	0.013	0.040	±0.040 ppm	PASS
Chlorfenapyr	NT 0.00 ppm				NA
Chlorpyrifos	ND 0.00 ppm	0.028	0.084	±0.084 ppm	PASS
Clofentazine	ND 0.50 ppm	0.005	0.015	±0.015 ppm	PASS
Coumaphos	ND 0.00 ppm	0.004	0.011	±0.011 ppm	PASS
Cyfluthrin	ND 1.00 ppm	0.005	0.015	±0.015 ppm	PASS
Cypermethrin	ND 1.00 ppm	0.004	0.011	±0.011 ppm	PASS
Daminozide	ND 0.00 ppm	0.019	0.057	±0.057 ppm	PASS
Dichlorvos	ND 0.00 ppm	0.010	0.029	±0.029 ppm	PASS
Diazinon	ND 0.20 ppm	0.001	0.002	±0.002 ppm	PASS
Dimethoate	ND 0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Etoxazole	ND 1.50 ppm	0.003	0.008	±0.008 ppm	PASS
Fenoxycarb	ND 0.00 ppm	0.002	0.007	±0.007 ppm	PASS
Fenpyroximate	0.04 ppm 2.00 ppm	0.001	0.002	±0.003 ppm	PASS
Fipronil	ND 0.00 ppm	0.005	0.015	±0.015 ppm	PASS
Flonicamid	ND 2.00 ppm	0.068	0.203	±0.203 ppm	PASS
Fludioxonil	ND 30.00 ppm	0.004	0.013	±0.013 ppm	PASS
Hexythiazox	ND 2.00 ppm	0.001	0.002	±0.002 ppm	PASS
Imazalil	ND 0.00 ppm	0.004	0.013	±0.013 ppm	PASS
Imidacloprid	ND 3.00 ppm	0.001	0.002	±0.002 ppm	PASS
Malathion	ND 5.00 ppm	0.004	0.011	±0.011 ppm	PASS
Metalaxyl	ND 15.00 ppm	0.005	0.016	±0.016 ppm	PASS
Methiocarb	ND 0.00 ppm	0.003	0.008	±0.008 ppm	PASS
Methomyl	ND 0.10 ppm	<0.001	0.001	±0.001 ppm	PASS
Methyl Parathion	NT 0.00 ppm				NA
Mevinphos	ND 0.00 ppm	0.004	0.011	±0.011 ppm	PASS
Myclobutanil	ND 9.00 ppm	0.001	0.002	±0.002 ppm	PASS
Naled	ND 0.50 ppm	0.004	0.011	±0.011 ppm	PASS
Oxamyl	ND 0.20 ppm	0.002	0.005	±0.005 ppm	PASS
Paclobutrazol	ND 0.00 ppm	0.002	0.006	±0.006 ppm	PASS
Permethrin	ND 20.00 ppm	0.007	0.021	±0.021 ppm	PASS
Phosmet	ND 0.20 ppm	0.002	0.006	±0.006 ppm	PASS
Piperonylbutoxide	0.03 ppm 8.00 ppm	0.007	0.021	±0.022 ppm	PASS
Prallethrin	ND 0.40 ppm	0.003	0.008	±0.008 ppm	PASS
Propiconazole	ND 20.00 ppm	0.003	0.008	±0.008 ppm	PASS
Propoxur	ND 0.00 ppm	0.004	0.012	±0.012 ppm	PASS
Pyrethrin	ND 1.00 ppm	0.002	0.005	±0.005 ppm	PASS
Pyridaben	ND 3.00 ppm	0.001	0.002	±0.002 ppm	PASS
Spinetoram	ND 3.00 ppm	0.002	0.007	±0.007 ppm	PASS
Spinosad	ND 3.00 ppm	0.005	0.014	±0.014 ppm	PASS
Spiromesifen	ND 12.00 ppm	0.002	0.006	±0.006 ppm	PASS
Spirotetramat	ND 13.00 ppm	0.002	0.005	±0.005 ppm	PASS
Spiroxamine	ND 0.00 ppm	0.001	0.002	±0.002 ppm	PASS
Tebuconazole	ND 2.00 ppm	0.003	0.010	±0.010 ppm	PASS
Thiacloprid	ND 0.10 ppm	0.001	0.002	±0.002 ppm	PASS
Thiamethoxam	ND 4.50 ppm	0.002	0.006	±0.006 ppm	PASS
Trifloxystrobin	ND 30.00 ppm	0.002	0.005	±0.005 ppm	PASS

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issue date 12/25/22 1:31 PM

Stillwater Laboratories

15783 order

total cannabinoids per 10.00g 157.0mg 10mL

total THC‡ ND total CBD‡ 153.1mg

Incoming Inspection MSP-7.5.1.2

DESCRIPTION: Topical sample (10.00g) received 12/22/2022 11:40:41 AM in a client-labeled bottle, by commercial courier. 1 per container. 1.



0.000 0.160 0.320 0.480 0.640

- caryophyllene, humulene, terpinolene, ocimene, beta pinene, alpha pinene, limonene, myrcene, linalool

0.000 0.160 0.320 0.480 0.640

Potency table with columns: Compound, MSP-7.5.1.4, per 10mL, LOD, LOQ, error. Includes total cannabinoids, total THC, total CBD, and various cannabinoids.

Terpenes table with columns: Compound, MSP-7.5.1.6, LOD, LOQ, error. Includes total terpenes and individual terpenes like linalool, myrcene, etc.

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Pass / Fail Criteria

Microbial MSP-7.5.1.10b FAIL: no failures PASS: Salmonella (PCR), STEC (PCR), A. flavus (PCR), A. fumigatus (PCR), A. terreus (PCR), A. niger (PCR)

Mycotoxins MSP-7.5.1.8 FAIL: no failures PASS: Ochratoxin A, Aflatoxin B1B2G1G2, Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2

Moisture MSP-7.5.1.3 not required / not requested

Metals MSP-7.5.1.7 FAIL: no failures PASS: Arsenic, Cadmium, Lead, Mercury

Pesticides MSP-7.5.1.8 FAIL: no failures PASS: Abamectin, Acephate, Acequinocyl, Acetamiprid, Aldicarb, Azoxystrobin, Bifenazate, Bifenthrin, Boscalid, Carbaryl, Carbofuran, Chloanthraniliprole, Chlorpyrifos, Clofentezine, Coumaphos, Cyfluthrin, Cypermethrin, Daminozide, Dichlorvos, Diazinon, Dimethoate, Etoxazole, Fenoxycarb, Fenpyroximate, Fipronil, Flonicamid, Fludioxonil, Hexythiazox, Imazalil, Imidacloprid, Malathion, Metalaxyl, Methiocarb, Methomyl, Mevinphos, Myclobutanil, Naled, Oxamyl, Paclobotrazol, Permethrin, Phosmet, Piperonylbutoxide, Prallethrin, Propiconazole, Propoxur, Pyrethrin, Pyridaben, Spinetoram, Spinosad, Spiromesifen, Spirotetramat, Spiroxamine, Tebuconazole, Thiacloprid, Thiamethoxam, Trifloxystrobin

Solvents MSP-7.5.1.7 FAIL: no failures PASS: Acetone, Acetonitrile, Benzene, Butane, Chloroform, Cyclohexane, Ethanol, Ethyl acetate, Heptane, Hexane, Isopropyl alcohol, Methanol, Pentane, Propane, Toluene, Xylenes

These results are only valid for the samples tested. Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]HPLC x volume dilution / m dry. Decarboxyated cannabinoid concentration is calculated XXXtotal = 0.877 x XXXa + XXX ... Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s9^2 = sum (df/di)^2 s9^2 where i is the contributor to error. The 95% confidence range is calculated from: (concentration) +/- tCL90 x S9. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed, \* = analyte is off-scope.

Certified by:

Signature



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certificate ID  
**2MQ23**



**15783**  
order

Nature's Distribution  
**Pure Ratios Roll On PRR0017**

order 15783  
rec'd date 12/22/2022 11:40:41 AM  
issue date 12/25/2022 1:31:25 PM

**ANALYTICAL DATA**

Report Version: 1  
Analysis Location: L-100060-

Stillwater  
Laboratories

**Methods and Instruments**

MSP-7.3.1.1	BAL-05	12/22/2022	MSP-7.5.1.7	QP2020/HS20	12/23/2022	L-100060-002
MSP-7.5.1.2	YSC HD801m12	12/23/2022	MSP-7.5.1.8	LCMS8060	12/23/2022	
MSP-7.5.1.3	6MOC63u	12/23/2022	MSP-7.5.1.8	LCMS8060	12/23/2022	
MSP-7.5.1.4	LC-2030C	12/23/2022	MSP-7.5.1.10b	Aria MX	12/23/2022	
MSP-7.5.1.6	QP2020/HS20	12/23/2022	MSP-7.5.1.11	ICPMS2030	12/23/2022	

**Mycotoxins**

MSP-7.5.1.8	limit	LOD	LOQ	error	result
Ochratoxin A	ND 20 ppb	0.3	0.9	±0.9 ppb	PASS
Aflatoxin B1B2G1G2	ND 20 ppb	0.3	0.9	±0.9 ppb	PASS

**Microbial**

MSP-7.5.1.10b	limit	LOD	LOQ	error	result
Salmonella (PCR)	ND 0CFU	0.0	1.1	±0.1CFU	PASS
STEC (PCR)	ND 0CFU	1.9	5.6	±5.6CFU	PASS
A. flavus (PCR)	ND 0CFU	1.9	5.6	±5.6CFU	PASS
A. fumigatus (PCR)	ND 0CFU	1.9	5.6	±5.6CFU	PASS
A. terreus (PCR)	ND 0CFU	1.9	5.6	±5.6CFU	PASS
A. niger (PCR)	ND 0CFU	1.9	5.6	±5.6CFU	PASS

**Solvents**

MSP-7.5.1.7	limit	LOD	LOQ	error	result
Acetone	ND 5000 ppm	0.6	1.7	±1.7 ppm	PASS
Acetonitrile	ND 410 ppm	0.5	1.5	±1.5 ppm	PASS
Benzene	ND 0 ppm	0.0	1.1	±0.1 ppm	PASS
Butane	ND 5000 ppm	1.2	3.5	±3.5 ppm	PASS
Chloroform	ND 0 ppm	0.1	0.2	±0.2 ppm	PASS
Cyclohexane	ND 0 ppm	0.4	1.3	±1.3 ppm	PASS
Ethanol	<LOQ 10000 ppm	0.6	1.8	±1.8 ppm	PASS
Ethyl acetate	ND 5000 ppm	0.0	1.1	±0.1 ppm	PASS
Heptane	ND 5000 ppm	0.3	1.0	±1.0 ppm	PASS
Hexane	ND 290 ppm	0.4	1.3	±1.3 ppm	PASS
Isopropyl alcohol	ND 5000 ppm	0.5	1.6	±1.6 ppm	PASS
Methanol	ND 3000 ppm	0.4	1.3	±1.3 ppm	PASS
Methylene chloride	NT 0 ppm				NA
Pentane	ND 5000 ppm	0.2	0.5	±0.5 ppm	PASS
Propane	ND 5000 ppm	0.4	1.3	±1.3 ppm	PASS
Toluene	ND 890 ppm	0.3	0.8	±0.8 ppm	PASS
Xylenes	ND 2170 ppm	0.3	0.9	±0.9 ppm	PASS

**Metals**

MSP-7.5.1.7	limit	LOD	LOQ	error	result
Arsenic	ND 1500 ppb	6.7	20.1	±20.1 ppb	PASS
Cadmium	ND 500 ppb	7.2	21.6	±21.6 ppb	PASS
Lead	ND 500 ppb	11.2	33.6	±33.6 ppb	PASS
Mercury	ND 300 ppb	5.6	16.9	±16.9 ppb	PASS

These results are only valid for the samples tested. • Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula  $s_g^2 = \sum (\partial f/\partial i)^2 s_i^2$  where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ±  $t_{CL90} \times S_g$ . Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable.

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Pesticides	MSP-7.5.1.8	limit	LOD	LOQ	error	result
Abamectin	ND	0.30 ppm	0.005	0.016	±0.016 ppm	PASS
Acephate	ND	5.00 ppm	0.005	0.016	±0.016 ppm	PASS
Acequinocyl	ND	4.00 ppm	0.005	0.014	±0.014 ppm	PASS
Acetamiprid	ND	5.00 ppm	0.004	0.011	±0.011 ppm	PASS
Aldicarb	ND	0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Azoxystrobin	ND	40.00 ppm	0.001	0.004	±0.004 ppm	PASS
Bifenazate	ND	5.00 ppm	0.001	0.003	±0.003 ppm	PASS
Bifenthrin	ND	0.50 ppm	0.001	0.002	±0.002 ppm	PASS
Boscalid	ND	10.00 ppm	0.015	0.045	±0.045 ppm	PASS
Carbaryl	ND	0.50 ppm	0.006	0.018	±0.018 ppm	PASS
Carbofuran	ND	0.00 ppm	0.001	0.004	±0.004 ppm	PASS
Chloanthraniliprole	ND	40.00 ppm	0.014	0.043	±0.043 ppm	PASS
Chlorfenapyr	NT	0.00 ppm				NA
Chlorpyrifos	ND	0.00 ppm	0.030	0.090	±0.090 ppm	PASS
Clofentezine	ND	0.50 ppm	0.005	0.016	±0.016 ppm	PASS
Coumaphos	ND	0.00 ppm	0.004	0.011	±0.011 ppm	PASS
Cyfluthrin	ND	1.00 ppm	0.005	0.016	±0.016 ppm	PASS
Cypermethrin	ND	1.00 ppm	0.004	0.011	±0.011 ppm	PASS
Daminozide	ND	0.00 ppm	0.020	0.061	±0.061 ppm	PASS
Dichlorvos	ND	0.00 ppm	0.010	0.031	±0.031 ppm	PASS
Diazinon	ND	0.20 ppm	0.001	0.003	±0.003 ppm	PASS
Dimethoate	ND	0.00 ppm	0.002	0.005	±0.005 ppm	PASS
Etoxazole	ND	1.50 ppm	0.003	0.008	±0.008 ppm	PASS
Fenoxycarb	ND	0.00 ppm	0.003	0.008	±0.008 ppm	PASS
Fenpyroximate	ND	2.00 ppm	0.001	0.003	±0.003 ppm	PASS
Fipronil	ND	0.00 ppm	0.005	0.016	±0.016 ppm	PASS
Flonicamid	ND	2.00 ppm	0.072	0.217	±0.217 ppm	PASS
Fludioxonil	ND	30.00 ppm	0.005	0.014	±0.014 ppm	PASS
Hexythiazox	ND	2.00 ppm	0.001	0.002	±0.002 ppm	PASS
Imazalil	ND	0.00 ppm	0.005	0.014	±0.014 ppm	PASS
Imidacloprid	ND	3.00 ppm	0.001	0.003	±0.003 ppm	PASS
Malathion	ND	5.00 ppm	0.004	0.011	±0.011 ppm	PASS
Metalaxyl	ND	15.00 ppm	0.006	0.017	±0.017 ppm	PASS
Methiocarb	ND	0.00 ppm	0.003	0.008	±0.008 ppm	PASS
Methomyl	ND	0.10 ppm	<0.001	0.001	±0.001 ppm	PASS
Methyl Parathion	NT	0.00 ppm				NA
Mevinphos	ND	0.00 ppm	0.004	0.011	±0.011 ppm	PASS
Myclobutanil	ND	9.00 ppm	0.001	0.002	±0.002 ppm	PASS
Naled	ND	0.50 ppm	0.004	0.011	±0.011 ppm	PASS
Oxamyl	ND	0.20 ppm	0.002	0.005	±0.005 ppm	PASS
Paclobutrazol	ND	0.00 ppm	0.002	0.006	±0.006 ppm	PASS
Permethrin	ND	20.00 ppm	0.007	0.022	±0.022 ppm	PASS
Phosmet	ND	0.20 ppm	0.002	0.006	±0.006 ppm	PASS
Piperonylbutoxide	ND	8.00 ppm	0.008	0.023	±0.023 ppm	PASS
Prallethrin	ND	0.40 ppm	0.003	0.008	±0.008 ppm	PASS
Propiconazole	ND	20.00 ppm	0.003	0.008	±0.008 ppm	PASS
Propoxur	ND	0.00 ppm	0.004	0.012	±0.012 ppm	PASS
Pyrethrin	ND	1.00 ppm	0.002	0.006	±0.006 ppm	PASS
Pyridaben	ND	3.00 ppm	0.001	0.002	±0.002 ppm	PASS
Spinetoram	ND	3.00 ppm	0.002	0.007	±0.007 ppm	PASS
Spinosad	ND	3.00 ppm	0.005	0.014	±0.014 ppm	PASS
Spiromesifen	ND	12.00 ppm	0.002	0.007	±0.007 ppm	PASS
Spirotetramat	ND	13.00 ppm	0.002	0.005	±0.005 ppm	PASS
Siproxamine	ND	0.00 ppm	0.001	0.002	±0.002 ppm	PASS
Tebuconazole	ND	2.00 ppm	0.004	0.011	±0.011 ppm	PASS
Thiacloprid	ND	0.10 ppm	0.001	0.002	±0.002 ppm	PASS
Thiamethoxam	ND	4.50 ppm	0.002	0.006	±0.006 ppm	PASS
Trifloxystrobin	ND	30.00 ppm	0.002	0.005	±0.005 ppm	PASS

