

Sample Information

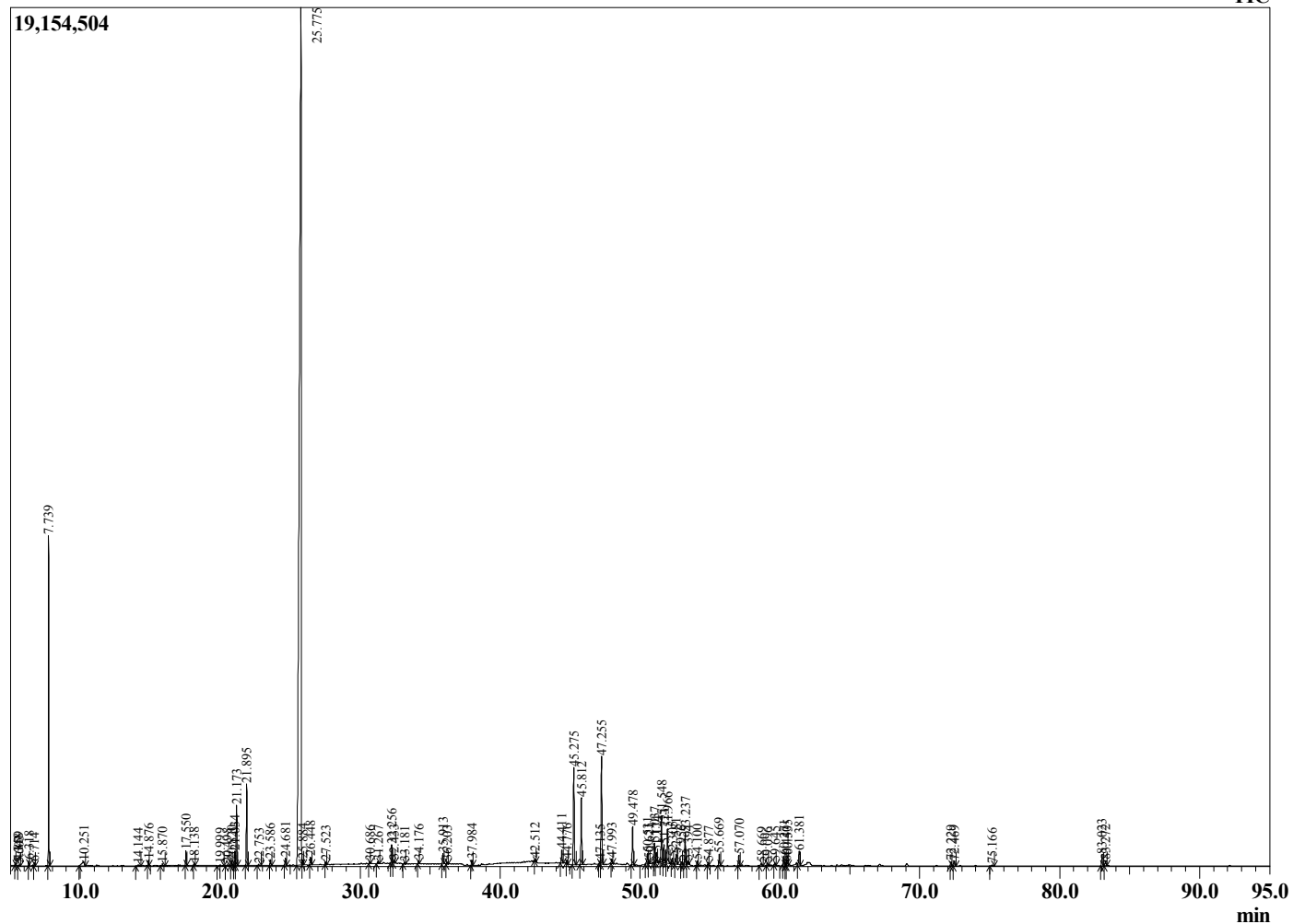
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 11/3/2020 6:54:45 PM  
 Sample Type : Essential Oil  
 Sample Name : Magnolia Flower -  
 Sample ID : BIOAROMA : BA29IAG  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
4.859	Methyl propanoate	0.05
5.348	2-Methylbutanal	0.04
5.603	Methyl isobutyrate	0.02
6.318	Methyl butyrate	0.07
6.714	2-Methylbutanol	0.05
7.739	Methyl-2-methylbutyrate	6.15
10.251	2-Methylbutyric acid	0.36
14.144	Methyl hexanoate	0.03
14.876	alpha-Pinene	0.14
15.870	Camphene	0.05
17.550	beta-Pinene	0.39
18.138	Myrcene	0.06
19.999	alpha-Terpinene	0.04
20.498	para-Cymene	0.03
20.820	Limonene	0.11
21.034	1,8-Cineole	0.39
21.173	cis-beta-Ocimene	1.67
21.895	trans-beta-Ocimene	2.28
22.753	gamma-Terpinene	0.04
23.586	cis-Linalool oxide (furanoid)	0.17
24.681	trans-Linalool oxide (furanoid)	0.24
25.775	Linalool	63.79
25.884	Hotrienol	0.11
26.448	Phenethyl alcohol	0.23
27.523	allo-Ocimene	0.07
30.686	Borneol	0.07
31.267	Terpinen-4-ol	0.07
32.256	alpha-Terpineol	0.57
32.433	Estragole	0.07
33.181	Octyl acetate	0.06
34.176	Nerol	0.08
35.913	Geraniol	0.32
36.203	2-Phenethyl acetate	0.07
37.984	Unidentified	0.18
42.512	alpha-Cubebene	0.10
44.411	alpha-Copaene	0.43
44.776	cis-beta-Elemene	0.09
45.275	trans-beta-Elemene	3.34
45.812	Methyleugenol	2.21
47.135	alpha-Santalene	0.09
47.255	trans-beta-Caryophyllene	3.81
47.993	trans-alpha-Bergamotene	0.15
49.478	alpha-Humulene	1.34
50.531	Unidentified	0.40
50.621	trans-Cadina-1(6),4-diene	0.12
51.037	Germacrene D	0.69
51.174	Phenethyl-2-methylbutyrate	0.35
51.548	beta-Selinene	1.61
51.723	Methyl isoeugenol	0.64
51.966	alpha-Selinene	1.33
52.305	(E,E)-alpha-Farnesene	0.20
52.581	beta-Bisabolene	0.34
52.956	gamma-Cadinene	0.09
53.237	delta-Cadinene	1.02
53.394	Unidentified	0.10
54.100	trans-Cadina-1,4-diene	0.16
54.877	Unidentified	0.09
55.669	trans-Nerolidol	0.39
57.070	Caryophyllene oxide	0.36
58.669	Humulene epoxide II	0.08
59.096	Selina-6-en-4-ol	0.09
59.645	1-epi-Cubanol	0.08

Chromatogram Magnolia Flower - BIOAROMA



Comments:

The analysis of this Magnolia flower batch sample meets the expected chemical profile for authentic essential oil of *Magnolia x alba*. No contamination or adulteration was detected.

The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
60.271	Phenethyl caproate	0.31
60.440	tau-Cadinol	0.09
60.535	tau-Muurolol	0.35
61.381	Selina-6-en-4-ol	0.50
72.229	Unidentified	0.14
72.469	Unidentified	0.17
75.166	Methyl palmitate	0.05
83.023	Methyl linoleate	0.41
83.272	Methyl linolenate	0.20
		100.00

Sample Information

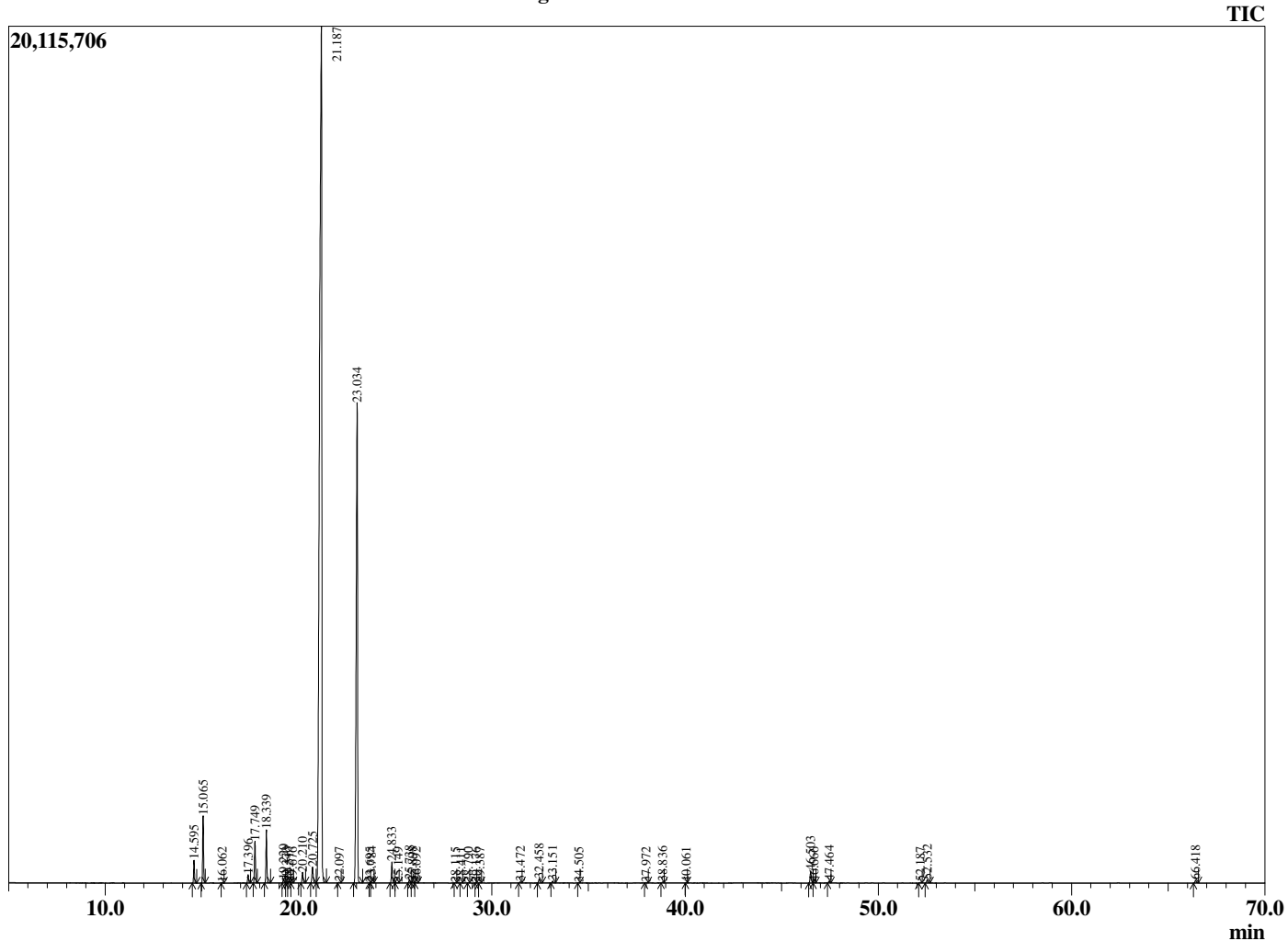
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 7/8/2020 12:30:52 AM  
 Sample Type : Essential Oil  
 Sample Name : Mandarin -  
 Sample ID : BIOAROMA : BA18FAH  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
14.595	alpha-Thujene	0.72
15.065	alpha-Pinene	2.08
16.062	Camphene	0.01
17.396	Sabinene	0.28
17.749	beta-Pinene	1.39
18.339	Myrcene	1.78
19.220	Octanal	0.13
19.370	Pseudolimonene	0.01
19.517	alpha-Phellandrene	0.07
19.676	3-Carene	0.01
20.210	alpha-Terpinene	0.39
20.725	para-Cymene	0.72
21.187	Limonene	67.45
22.097	(E)-beta-Ocimene	0.02
23.034	gamma-Terpinene	22.60
23.695	1-Octanol	0.01
23.784	trans-Sabinene hydrate	0.03
24.833	Terpinolene	0.77
25.149	para-Cymenene	0.01
25.738	Linalool	0.11
25.898	cis-Sabinene hydrate	0.05
26.092	Nonanal	0.03
28.115	cis-Limonene oxide	0.01
28.411	trans-Limonene oxide	0.01
28.790	Unidentified	0.01
29.176	Camphor	0.00
29.387	Citronellal	0.02
31.472	Terpinen-4-ol	0.04
32.458	alpha-Terpineol	0.17
33.151	Decanal	0.08
34.505	Citronellol	0.01
37.972	Perillaldehyde	0.02
38.836	Thymol	0.04
40.061	Undecanal	0.00
46.503	Dimethyl anthranilate	0.50
46.666	Dodecanal	0.03
47.464	trans-beta-Caryophyllene	0.08
52.187	alpha-Selinene	0.03
52.532	(E,E)-alpha-Farnesene	0.14
66.418	alpha-Sinensal	0.13
		100.00

Chromatogram Mandarin - BIOAROMA



Comments:

The analysis of this Mandarin, Red batch sample meets the expected chemical profile for authentic essential oil of *Citrus deliciosa*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

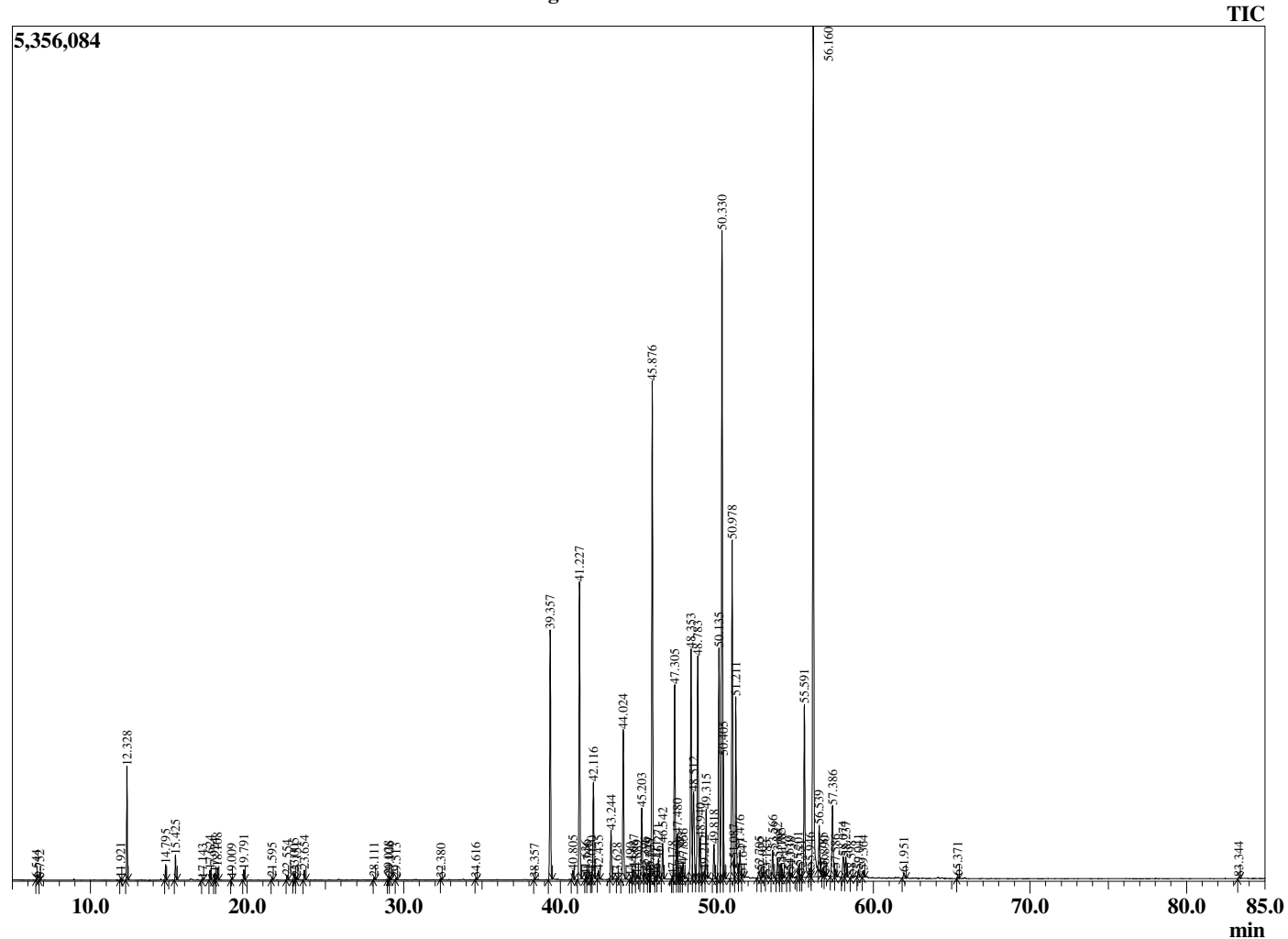
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 3/6/2021 1:58:51 PM  
 Sample Type : Essential Oil  
 Sample Name : Manuka -  
 Sample ID : BIOAROMA : BB22AQ  
 Injection Volume : 0.10  
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
6.544	Acetylbutyryl	0.01
6.752	Octane	0.01
11.921	alpha-Thujene	0.03
12.328	alpha-Pinene	1.29
14.795	beta-Pinene	0.19
15.425	Myrcene	0.32
17.143	alpha-Terpinene	0.02
17.624	para-Cymene	0.13
17.924	Limonene	0.09
18.108	1,8-cineole	0.18
19.009	(E)-beta-Ocimene	0.02
19.791	gamma-Terpinene	0.14
21.595	Terpinolene	0.04
22.554	Linalool	0.07
23.005	Isoamyl isovalerate	0.10
23.151	2-Methylbutyl isovalerate	0.04
23.654	3-Methylbut-3-enyl 3-methylbutyrate	0.15
28.111	Terpinen-4-ol	0.04
29.028	Isoamyl tiglate	0.06
29.106	alpha-Terpineol	0.05
29.513	Unidentified	0.03
32.380	Unidentified	0.02
34.616	Unidentified	0.02
38.357	delta-Elemene	0.02
39.357	alpha-Cubebene	4.10
40.805	alpha-Ylangene	0.17
41.227	alpha-Copaene	5.03
41.636	Elemene isomer	0.06
41.746	beta-Bourbonene	0.04
42.020	beta-Cubebene	0.09
42.116	beta-Elemene	1.64
42.435	Benzyl isovalerate	0.15
43.244	alpha-Gurjunene	0.83
43.628	Unidentified	0.02
44.024	trans-beta-Caryophyllene	2.57
44.490	Unidentified	0.04
44.687	beta-Gurjuene (calarene)	0.21
44.889	trans-alpha-Bergamotene	0.07
45.203	Aromadendrene	1.25
45.396	6,9-Guanidiene	0.13
45.649	Unidentified	0.11
45.725	Dihydro-alpha-Curcumene	0.05
45.876	trans-Murrola-3,5-diene	8.26
46.111	Unidentified	0.04
46.271	alpha-Humulene	0.33
46.542	Alloaromadendrene	0.60
47.178	Unidentified	0.04
47.305	10-beta-H-Cadina-1(6),4-diene	3.86
47.480	trans-Cadina-1(6),4-diene	0.79
47.599	Unidentified	0.11
47.743	alpha-Amorphene	0.19
47.856	Germacrene D	0.25
48.353	beta-Selinene	4.29
48.512	trans-Muurolo-4(14),5-diene	2.04
48.783	alpha-Selinene	4.22
48.940	alpha-Muuroloene	0.74
49.212	delta-Amorphene	0.19
49.315	(E,E)-alpha-Farnesene	1.13
49.818	gamma-Cadinene	0.59
50.135	delta-Cadinene	4.42
50.330	trans-Calamenene	11.95
50.405	Zonarene	1.14

Chromatogram Manuka - BIOAROMA



Comments:

The analysis of this Manuka batch sample meets the expected chemical profile for authentic essential oil of *Leptospermum scoparium*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
50.978	trans-Cadina-1,4-diene	6.13
51.087	Unidentified	0.03
51.211	Flavesone	3.00
51.476	alpha-Calacorene	0.54
51.647	Unidentified	0.07
52.705	Unidentified	0.17
52.922	Isoshyobunone	0.09
53.183	Palustrol	0.07
53.566	Spathulenol	0.50
53.882	Caryophyllene oxide	0.39
54.105	Viridiflorol	0.26
54.178	Unidentified	0.17
54.610	Viridiflorol	0.15
54.738	Guaiol	0.10
55.201	Ledol	0.19
55.351	Unidentified	0.04
55.591	Isoleptospermone	3.31
55.946	Unidentified	0.10
56.160	Leptospermone	15.74
56.539	1-epi-Cubenol	0.80
56.785	Unidentified	0.14
56.890	Unidentified	0.06
57.386	Unidentified	1.61
57.586	delta-Cadinol	0.14
58.074	alpha-Eudesmol	0.53
58.237	Unidentified	0.38
58.598	Unidentified	0.04
59.041	Cadalene	0.14
59.364	Unidentified	0.11
61.951	Unidentified	0.12
65.371	Unidentified	0.03
83.344	Grandiflorone	0.03
		100.00

Sample Information

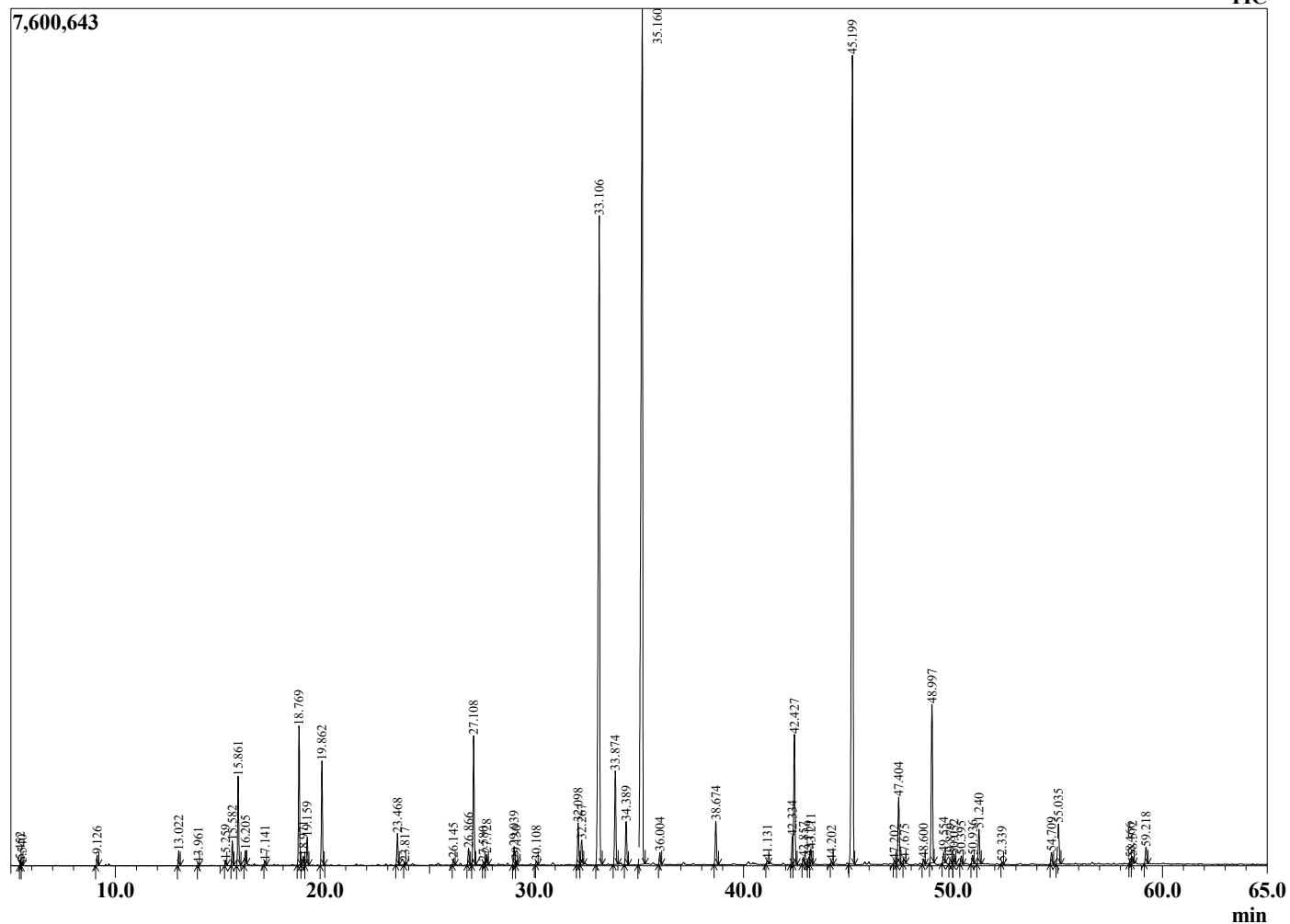
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 7/11/2020 4:18:49 PM  
 Sample Type : Essential Oil  
 Sample Name : Melissa - Edens Garden  
 Sample ID : BA18FAI  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
4.238	3-methyl-Butanal	0.08
4.351	2-methyl-Butanal	0.04
5.452	1-Pentanol	0.06
5.540	2-Methyl butanol	0.03
9.126	Hex-3(Z)-enol	0.16
13.022	alpha-Pinene	0.25
13.961	Camphene	0.05
15.259	Sabinene	0.09
15.582	3-Octanol	0.44
15.861	6-Methyl hept-5-en-2-one	1.70
16.205	Myrcene	0.25
17.141	Unidentified	0.09
18.769	Limonene	2.66
18.971	1,8-cineole	0.18
19.159	cis-beta-Ocimene	0.53
19.862	trans-beta-Ocimene	2.07
23.468	Linalool	0.64
23.817	Nonanal	0.05
26.145	Epiphocitral A	0.13
26.866	trans-Chrysanthamal	0.36
27.108	Citronellal	2.75
27.580	Isopulegol	0.05
27.728	cis-Chrysanthenol	0.23
29.039	trans-Isocitral	0.42
29.130	Unidentified	0.08
30.108	alpha-Terpineol	0.07
32.098	Nerol	0.92
32.267	Citronellol	0.60
33.106	Neral	18.04
33.874	Geraniol	2.12
34.389	Methyl citronellate	0.98
35.160	Geranial	27.01
36.004	trans-Carvone oxide	0.27
38.674	Methyl geranate	0.99
41.131	Neryl acetate	0.08
42.334	alpha-Copaene	0.54
42.427	Geranyl acetate	3.15
42.857	beta-Bourbonene	0.17
43.119	cis-Cadina-1(6),4-diene	0.17
43.211	beta-Elementene	0.37
44.202	cis-beta-Caryophyllene	0.07
45.199	beta-Caryophyllene	21.21
47.202	trans-beta-Farnesene	0.09
47.404	alpha-Humulene	1.67
47.675	Alloaromadendrene	0.10
48.600	trans-Cadina-1(6),4-diene	0.13
48.997	Germacrene D	3.96
49.554	(E,E)-alpha-Farnesene	0.22
49.879	Bicyclogermacrene	0.12
50.052	alpha-Murolene	0.21
50.395	(Z,Z)-alpha-Farnesene	0.19
50.936	gamma-Cadinene	0.20
51.240	delta-Cadinene	0.84
52.339	alpha-Cadinene	0.04
54.709	Germacren D-4-ol	0.29
55.035	Caryophyllene oxide	1.11
58.466	alpha-Muurolol	0.12
58.572	delta-Cadinol	0.18
59.218	alpha-Cadinol	0.40
		100.00

Chromatogram Melissa - Edens Garden



Comments:

The analysis of this Melissa batch sample meets the expected chemical profile for authentic essential oil of *Melissa officinalis*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

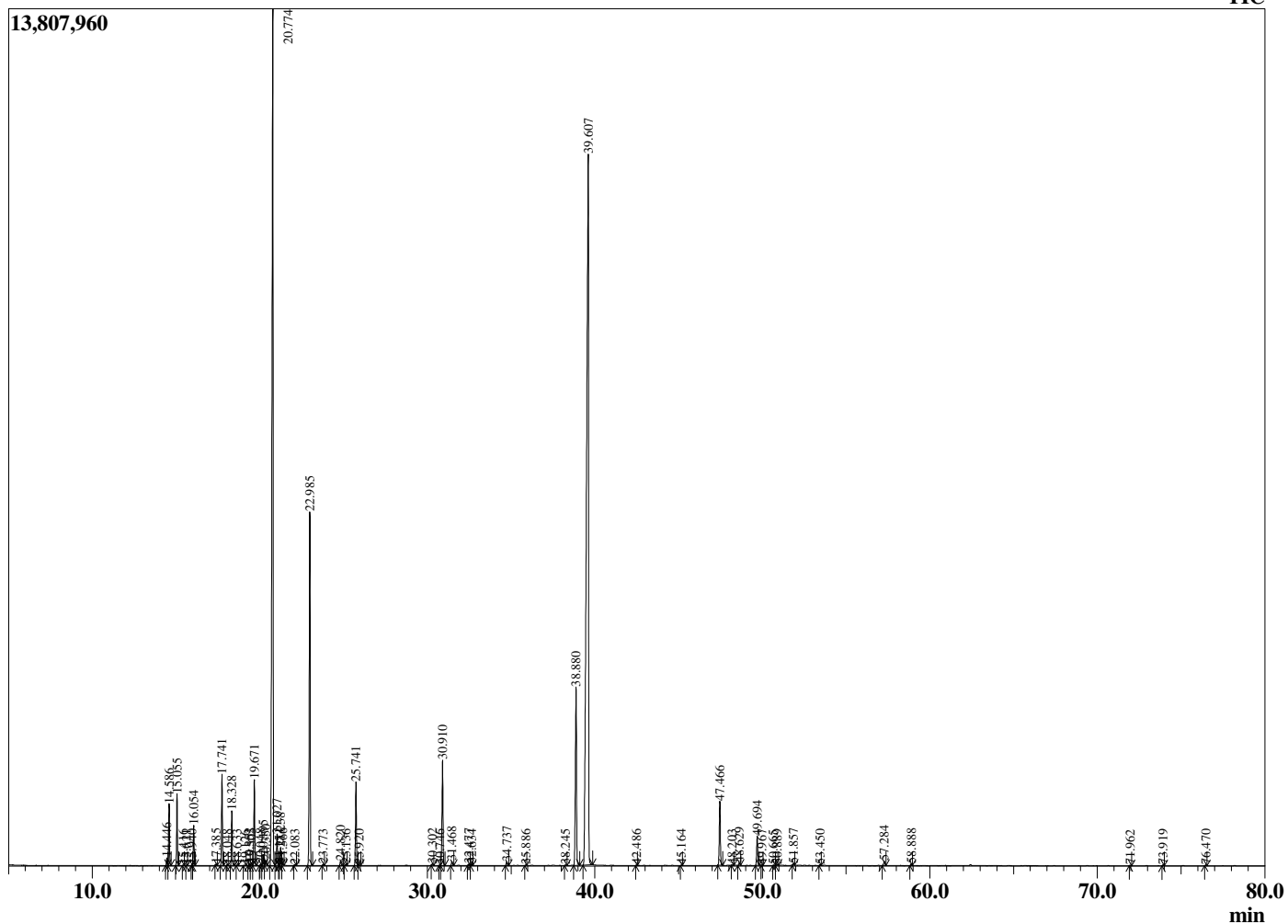
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 7/12/2020 11:29:46 PM  
 Sample Type : Essential Oil  
 Sample Name : Mountain Savory -  
 Sample ID : BIOAROMA : BA18FAJ  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
14.446	Tricyclene	0.16
14.586	alpha-Thujene	1.28
15.055	alpha-Pinene	1.47
15.416	beta-Fenchene	0.01
15.621	Thuja-2,4(10)diene	0.01
15.940	alpha-Fenchene	0.02
16.054	Camphene	0.85
17.385	Sabinene	0.03
17.741	beta-Pinene	2.05
18.048	Unidentified	0.02
18.328	Myrcene	1.21
18.633	cis-para-Menthane	0.01
19.126	1-para-Menthene	0.01
19.352	Pseudolimonene	0.05
19.505	alpha-Phellandrene	0.06
19.671	delta-3-Carene	2.00
20.048	1,4-Cineole	0.04
20.195	alpha-Terpinene	0.26
20.350	ortho-Cymene	0.12
20.774	para-Cymene	26.84
21.027	Limonene	0.73
21.151	beta-Phellandrene	0.03
21.238	1,8-cineole	0.41
21.366	meta-Cymene	0.04
22.083	trans-beta-Ocimene	0.02
22.985	gamma-Terpinene	9.04
23.773	trans-Sabinene hydrate	0.03
24.820	Terpinolene	0.13
25.136	para-Cymenene	0.03
25.741	Linalool	2.06
25.920	cis-Sabinene hydrate	0.03
30.302	Isoborneol	0.05
30.746	Thuj-3-en-2-one (Umbellulone)	0.01
30.910	Borneol	2.86
31.468	Terpinen-4-ol	0.11
32.477	alpha-Terpineol	0.05
32.634	Estragole	0.03
34.737	Thymol methyl ether	0.10
35.886	Carvone	0.01
38.245	Isothymol	0.02
38.880	Thymol	5.43
39.607	Carvacrol	39.14
42.486	Thymol acetate	0.01
45.164	beta-Bourbonene	0.01
47.466	beta-Caryophyllene	1.84
48.203	trans-alpha-Bergamotene	0.01
48.629	Aromadendrene	0.07
49.694	alpha-Humulene	0.84
49.967	Alloaromadendrene	0.01
50.665	trans-Cadina-1(6),4-diene	0.01
50.889	Unidentified	0.02
51.857	Viridiflorene (Ledene)	0.05
53.450	delta-Cadinene	0.02
57.284	Caryophyllene oxide	0.15
58.888	Humulene epoxide II	0.05
71.962	Unidentified	0.01
73.919	Unidentified	0.02
76.470	Unidentified	0.02
		100.00

Chromatogram Mountain Savory - BIOAROMA



Comments:

The analysis of this Mountain Savory batch sample meets the expected chemical profile for authentic essential oil of *Satureja montana*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

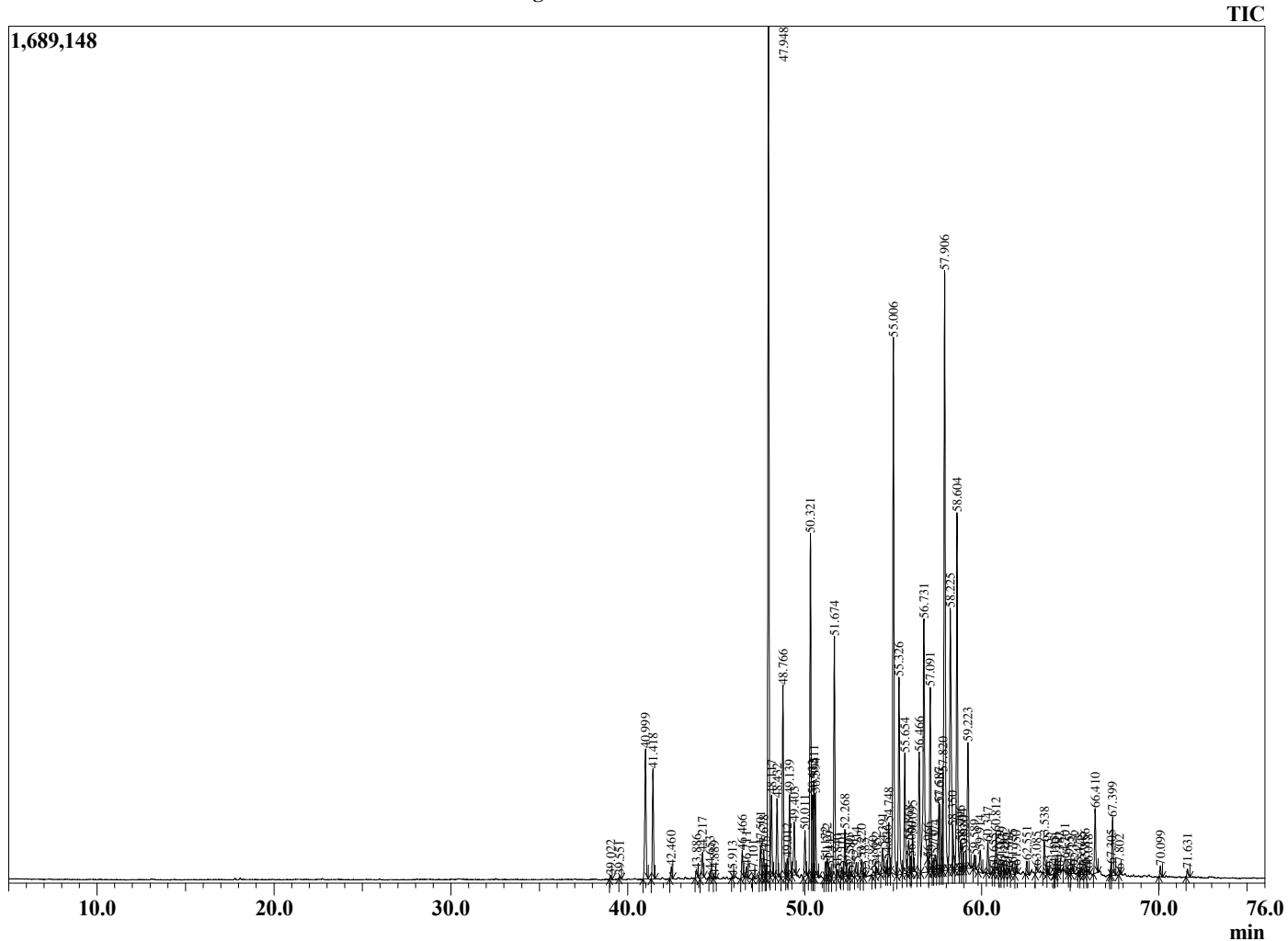
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 11/21/2020 1:56:50 PM  
 Sample Type : Essential Oil  
 Sample Name : Muhuhu Oil-  
 Sample ID : BIOAROMA : BA18FAK  
 Injection Volume : 0.10  
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
39.022	Unidentified	0.05
39.551	Unidentified	0.03
40.999	alpha-Ylangene	2.12
41.418	alpha-Copaene	1.48
42.460	Sativene	0.16
43.886	Unidentified	0.13
44.217	trans-beta-Caryophyllene	0.42
44.653	Unidentified	0.09
44.889	Unidentified	0.03
45.913	Unidentified	0.02
46.466	alpha-Humulene	0.37
46.711	Unidentified	0.16
47.101	Unidentified	0.04
47.501	10-beta-H-Cadina-1(6),4-diene	0.44
47.678	trans-Cadina-1(6),4-diene	0.38
47.775	Unidentified	0.06
47.948	alpha-Amorphene	12.15
48.117	(Z)-4,10-Expoxy amorphane	1.17
48.432	delta-Selinene	1.08
48.766	trans-Murrola-4(14),5-diene	2.72
49.012	Epizonarene	0.25
49.139	alpha-Murolene	1.21
49.403	delta-Amorphene	0.86
50.011	gamma-Cadinene	0.62
50.321	delta-Cadinene	4.79
50.432	cis-Calamenene	1.07
50.511	trans-Calamenene	1.25
50.594	Zonarene	1.21
51.172	trans-Cadina-1,4-diene	0.23
51.272	Unidentified	0.32
51.419	Unidentified	0.14
51.674	alpha-Calacorene	3.39
51.840	Unidentified	0.13
52.101	Unidentified	0.12
52.268	Unidentified	0.65
52.503	Unidentified	0.11
52.580	Unidentified	0.08
52.914	Unidentified	0.23
53.220	Unidentified	0.24
53.385	Unidentified	0.06
53.860	Unidentified	0.09
54.052	Caryophyllene oxide	0.14
54.391	Unidentified	0.38
54.636	Unidentified	0.13
54.748	Unidentified	0.71
55.006	Brachyl oxide	7.87
55.326	beta-Oplophenone	3.08
55.654	Unidentified	1.83
55.868	Unidentified	0.68
56.000	Unidentified	0.20
56.095	Unidentified	0.53
56.466	Unidentified	1.94
56.731	1-epi-Cubenol	5.31
56.966	Unidentified	0.01
57.091	Unidentified	2.79
57.270	Unidentified	0.09
57.374	Unidentified	0.30
57.587	Unidentified	1.01
57.616	Unidentified	0.90
57.820	delta-Cadinol	1.05
57.906	Copaenol	9.73
58.225	alpha-Cadinol	4.97

Chromatogram Muhuhu Oil-BIOAROMA



Comments:

The analysis of this Muhuhu batch sample meets the expected chemical profile for authentic essential oil of *Brachyleana hutchinsii*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.



R.Time	Name	Area%
58.350	Unidentified	0.57
58.604	Unidentified	5.11
58.796	Unidentified	0.42
58.894	Unidentified	0.41
59.020	Unidentified	0.46
59.223	Cadalene	2.31
59.589	Unidentified	0.18
59.914	Unidentified	0.40
60.347	Unidentified	0.46
60.655	Unidentified	0.06
60.812	Unidentified	0.62
61.029	Unidentified	0.13
61.179	Unidentified	0.21
61.295	Unidentified	0.09
61.504	Unidentified	0.07
61.735	Unidentified	0.21
61.950	Unidentified	0.12
62.551	Unidentified	0.18
63.085	Unidentified	0.09
63.538	Unidentified	0.51
63.735	Unidentified	0.09
64.105	Unidentified	0.05
64.201	Unidentified	0.10
64.382	Unidentified	0.09
64.701	Unidentified	0.30
64.955	Unidentified	0.04
65.126	Unidentified	0.15
65.473	Unidentified	0.04
65.645	Unidentified	0.12
65.856	Unidentified	0.17
66.018	Unidentified	0.09
66.410	Muhuhu unknown isomer A	0.96
67.305	Unidentified	0.11
67.399	Muhuhu unknown isomer B	0.92
67.802	Unidentified	0.06
70.099	Unidentified	0.15
71.631	Unidentified	0.14
		100.00

Sample Information

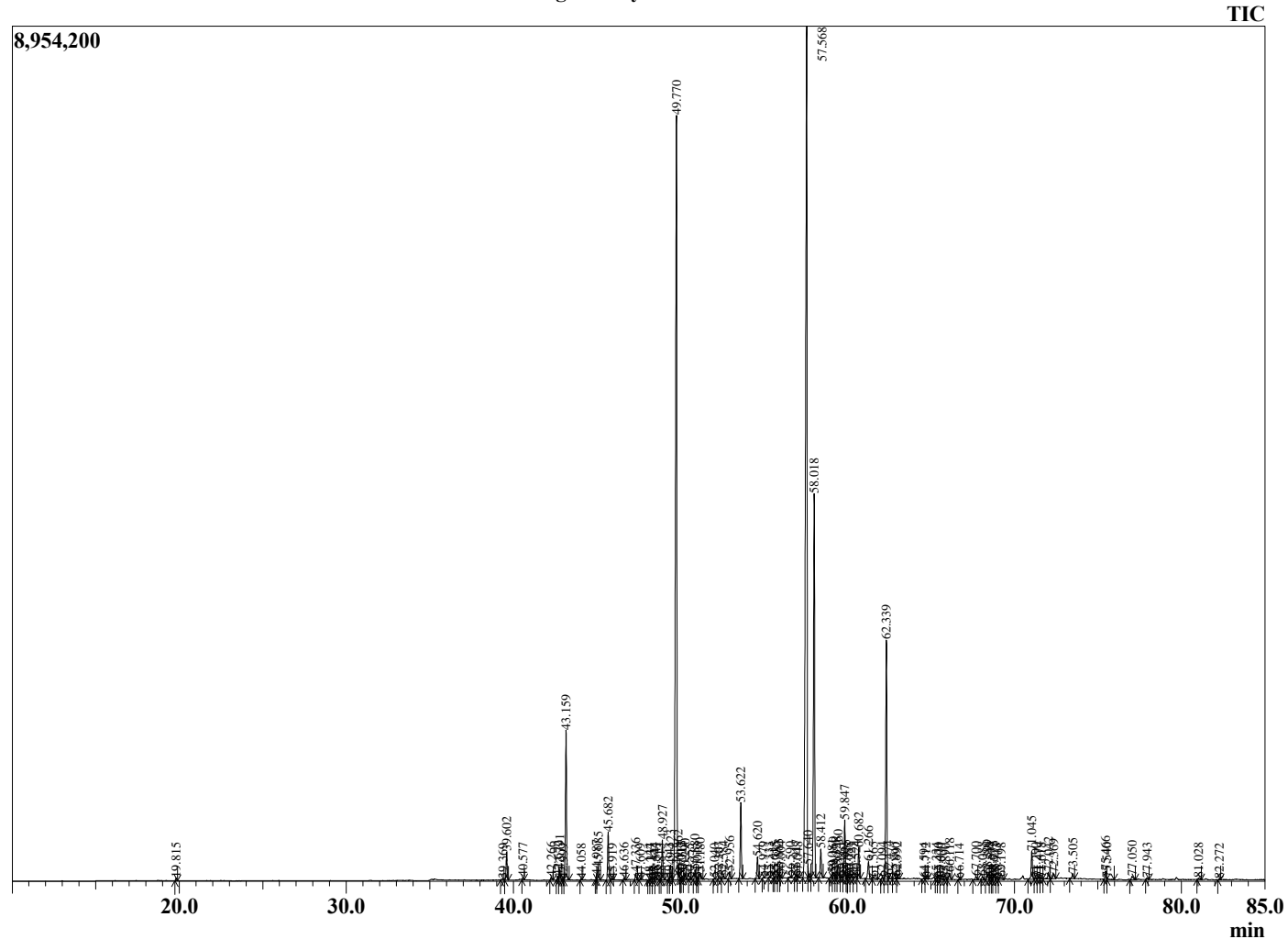
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 10/30/2020 2:19:06 AM  
 Sample Type : Essential Oil  
 Sample Name : Myrrh - BIOAROMA  
 Sample ID : BA29IAH  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
19.815	(E)-beta-Ocimene	0.06
39.369	delta-Elemene isomer	0.05
39.602	delta-Elemene	0.74
40.577	Eugenol	0.06
42.266	alpha-Copaene	0.08
42.672	beta-Elemene isomer	0.10
42.791	beta-Bourbonene	0.28
42.999	Unidentified	0.03
43.159	beta-Elemene	4.00
44.058	Cyperene	0.02
44.987	beta-Ylangene	0.06
45.085	beta-Caryophyllene	0.48
45.682	gamma-Elemene	1.32
45.919	trans-alpha-Bergamotene	0.03
46.636	trans-Murrola-3,5-diene	0.06
47.336	alpha-Humulene	0.18
47.609	Alloaromadendrene	0.05
48.144	10-beta-H-Cadinal(6),4-diene	0.03
48.237	Unidentified	0.04
48.444	Unidentified	0.08
48.541	trans-Cadina-1(6),4-diene	0.10
48.813	alpha-Amorphene	0.04
48.927	Germacrene D	1.10
49.343	Unidentified	0.05
49.423	beta-Selinene	0.40
49.770	Curzerene	26.12
49.862	alpha-Selinene	0.06
50.012	alpha-Murolene	0.04
50.115	cis-alpha-Bisabolene	0.07
50.290	Unidentified	0.15
50.555	beta-Bisabolene	0.02
50.880	gamma-Cadinene	0.26
51.013	Unidentified	0.03
51.180	delta-Cadinene	0.19
52.040	Unidentified	0.02
52.307	Selina-4(15),7(11)-diene	0.07
52.584	Selina-3,7(11)-diene	0.10
52.956	alpha-Elemol	0.19
53.622	Germacrene B	2.13
54.620	Furanouedesma-1,4-diene	0.60
54.979	Caryophyllene oxide	0.03
55.333	Unidentified	0.02
55.615	Unidentified	0.02
55.735	Unidentified	0.08
55.883	beta-Elemenone	0.12
56.004	Curzerenone	0.07
56.590	Unidentified	0.06
56.917	1,10-di-epi-Cubanol	0.08
57.048	Unidentified	0.03
57.568	Furanouedesma-1,3-diene	32.57
57.640	Unidentified	0.17
58.018	Lindrestrene	11.01
58.412	alpha-Muurolol	0.86
59.081	Unidentified	0.13
59.160	alpha-Eudesmol	0.23
59.338	Unidentified	0.19
59.460	Furanodiene	0.49
59.661	Unidentified	0.05
59.847	Elemyl acetate	1.61
59.935	Unidentified	0.04
60.088	Unidentified	0.04
60.221	cis-alpha-Santalol	0.06

Chromatogram Myrrh - BIOAROMA



Comments:

The analysis of this Myrrh batch sample meets the expected chemical profile for authentic essential oil of *Commiphora myrrha*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
60.524	Unidentified	0.09
60.682	2-Methoxyfuranodiene isomer	0.83
61.266	Germacrone	0.62
61.565	Unidentified	0.13
62.094	Unidentified	0.07
62.339	2-Methoxyfuranodiene isomer	6.90
62.474	Unidentified	0.13
62.890	Unidentified	0.06
62.992	Unidentified	0.06
64.594	Unidentified	0.03
64.712	Unidentified	0.05
65.334	Unidentified	0.05
65.470	Unidentified	0.08
65.600	Unidentified	0.03
65.890	Unidentified	0.03
66.118	Unidentified	0.23
66.714	Unidentified	0.03
67.700	Unidentified	0.11
68.088	Unidentified	0.11
68.399	2-acetoxymethoxyfuranodiene isomer	0.17
68.548	Unidentified	0.07
68.672	Unidentified	0.07
68.775	Unidentified	0.13
68.943	Unidentified	0.03
69.198	Unidentified	0.11
71.045	2-acetoxymethoxyfuranodiene isomer	0.86
71.290	Unidentified	0.05
71.474	Unidentified	0.08
71.618	Unidentified	0.05
72.042	Unidentified	0.26
72.369	Unidentified	0.22
73.505	Unidentified	0.16
75.466	Unidentified	0.26
75.540	Unidentified	0.08
77.050	Unidentified	0.15
77.943	Unidentified	0.06
81.028	Unidentified	0.07
82.272	Unidentified	0.02
		100.00

Sample Information

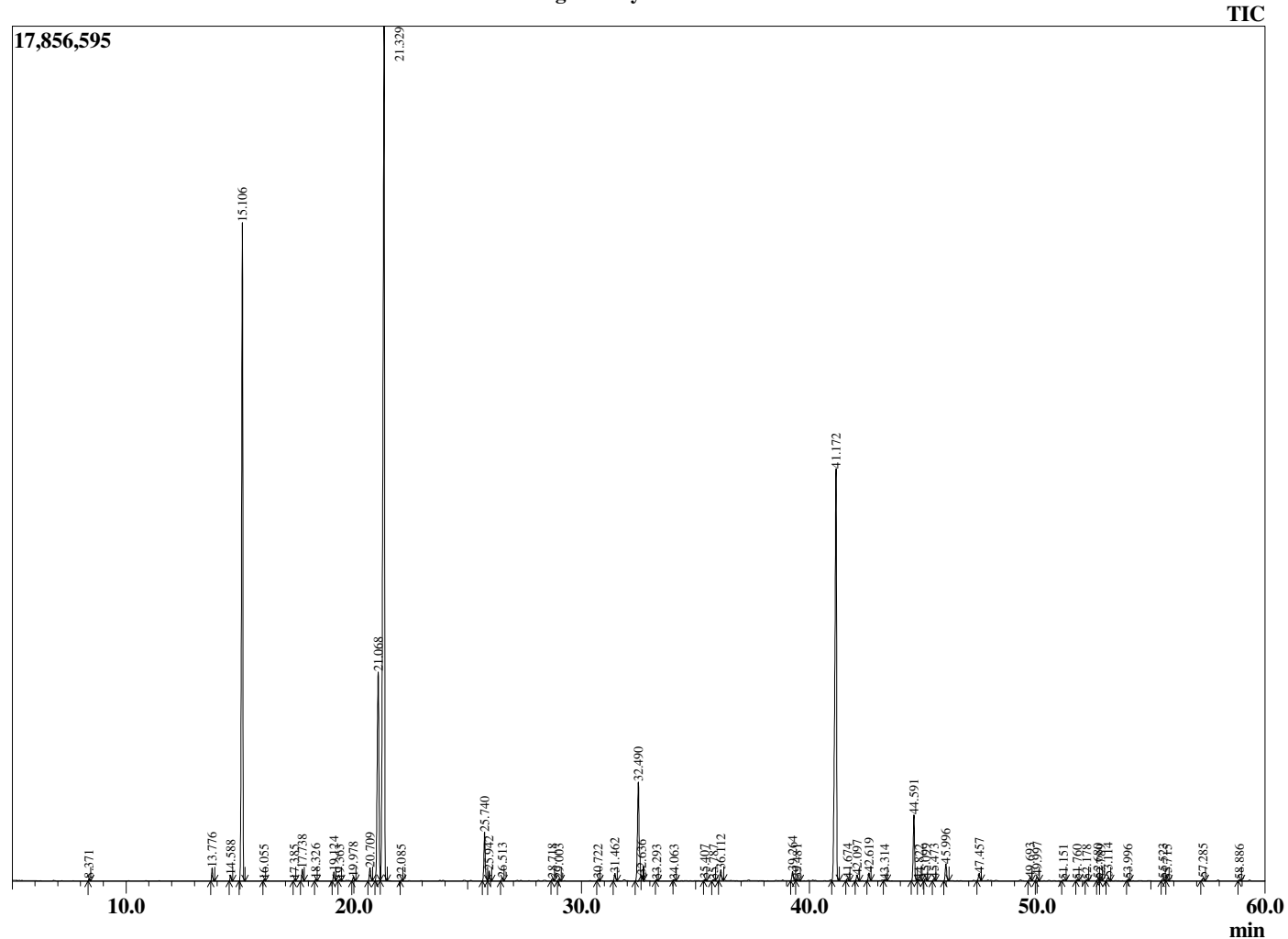
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 7/12/2020 1:35:44 PM  
 Sample Type : Essential Oil  
 Sample Name : Myrtle -  
 Sample ID : BIOAROMA :  
 Injection Volume : BA18FAL  
 Instrument ID : 0.10  
 : GC-2



Peak Report TIC

R.Time	Name	Area%
8.371	Acetylbutyryl	0.05
13.776	Isobutyl isobutyrate	0.34
14.588	alpha-Thujene	0.16
15.106	alpha-Pinene	21.47
16.055	Camphene	0.03
17.385	Sabinene	0.02
17.738	beta-Pinene	0.35
18.326	Myrcene	0.05
19.124	Isobutyl 2-methylbutyrate	0.26
19.363	Unidentified	0.03
19.978	2-Methylbutyl isobutyrate	0.12
20.709	para-Cymene	0.45
21.068	Limonene	9.23
21.329	1,8-cineole	36.18
22.085	trans-beta-Ocimene	0.02
25.740	Linalool	1.68
25.942	2-Methylbutyl-2-methylbutyrate	0.32
26.513	Unidentified	0.10
28.718	trans-Pinocarveol	0.07
29.003	trans-Verbenol	0.07
30.722	delta-Terpineol	0.04
31.462	Terpinen-4-ol	0.25
32.490	alpha-Terpineol	4.54
32.636	Estragole	0.03
33.293	Verbenone	0.04
34.063	trans-Carveol	0.03
35.407	Unidentified	0.03
35.787	Carvone	0.04
36.112	Geraniol	0.41
39.264	Unidentified	0.34
39.481	Unidentified	0.06
41.172	Myrtenyl acetate	18.30
41.674	Unidentified	0.07
42.097	Unidentified	0.20
42.619	alpha-Terpinyl acetate	0.26
43.314	Neryl acetate	0.05
44.591	Geranyl acetate	2.32
44.822	Unidentified	0.04
45.099	Unidentified	0.08
45.473	beta-Elementene	0.08
45.996	Methyleugenol	0.61
47.457	beta-Caryophyllene	0.27
49.693	alpha-Humulene	0.11
49.997	Unidentified	0.15
51.151	Unidentified	0.04
51.760	beta-Selinene	0.03
52.178	alpha-Selinene	0.03
52.680	Geranyl isobutyrate	0.07
52.789	beta-Bisabolene	0.03
53.114	Unidentified	0.13
53.996	Unidentified	0.04
55.523	Unidentified	0.08
55.715	Unidentified	0.03
57.285	Caryophyllene oxide	0.11
58.886	Humulene epoxide II	0.03
		100.00

Chromatogram Myrtle - BIOAROMA



Comments:

The analysis of this Myrtle batch sample meets the expected chemical profile for authentic essential oil of *Myrtus communis*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

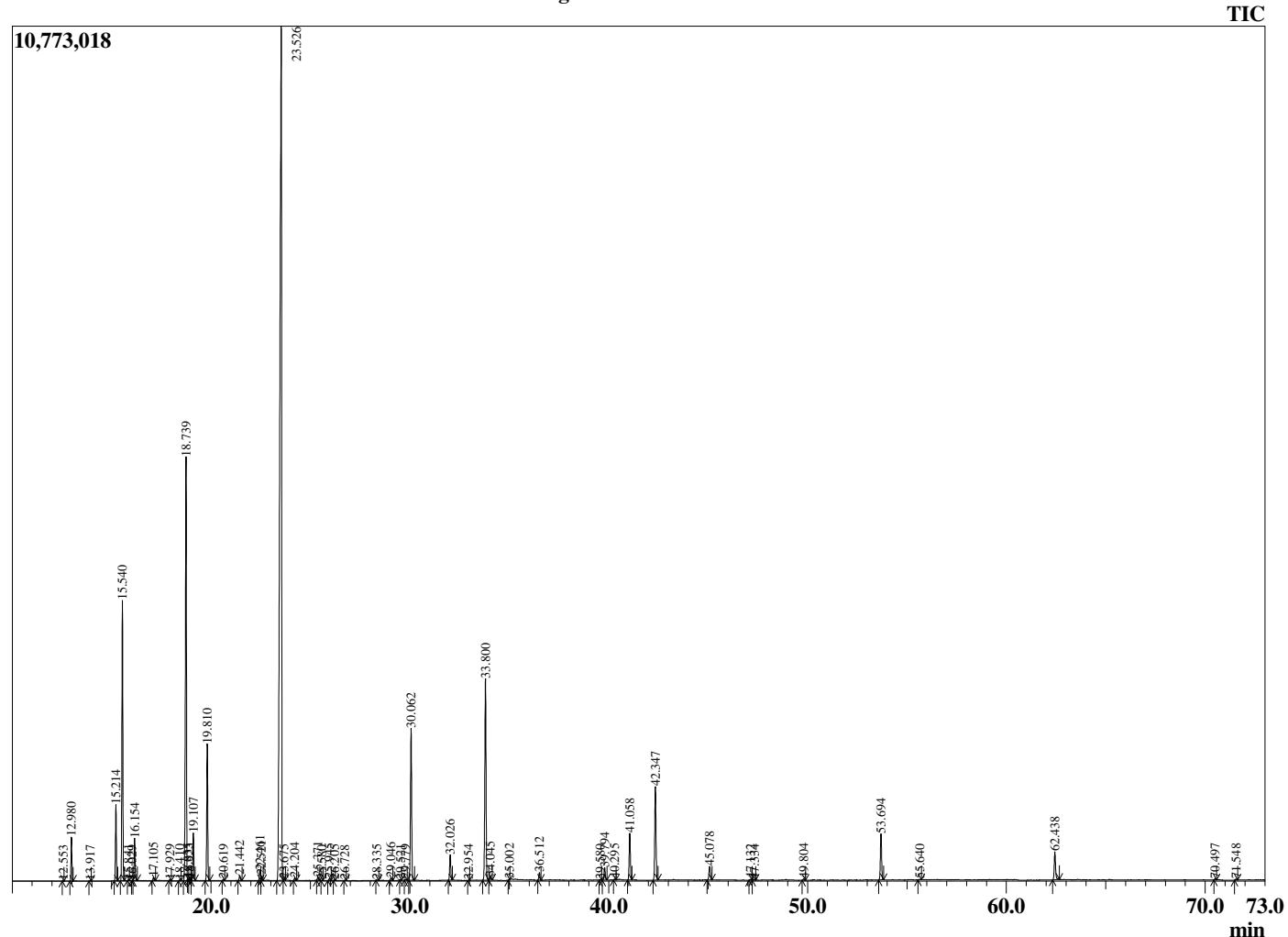
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 10/17/2020 11:03:09 PM  
 Sample Type : Essential Oil  
 Sample Name : Neroli - BIOAROMA :  
 Sample ID : BA29IAI  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
12.553	alpha-Thujene	0.01
12.980	alpha-Pinene	1.10
13.917	Camphene	0.02
15.214	Sabinene	2.07
15.540	beta-Pinene	7.93
15.841	Unidentified	0.02
16.029	Unidentified	0.01
16.154	Myrcene	1.21
17.105	Pseudolimonene	0.10
17.929	alpha-Terpinene	0.03
18.410	para-Cymene	0.02
18.739	Limonene	13.23
18.835	beta-Phellandrene	0.01
18.923	1,8-Cineole	0.04
19.107	(Z)-beta-Ocimene	1.41
19.810	(E)-beta-Ocimene	4.07
20.619	gamma-Terpinene	0.04
21.442	cis-Linalool oxide (furanoid)	0.17
22.461	Terpinolene	0.35
22.521	trans-Linalool oxide (furanoid)	0.12
23.526	Linalool	44.67
23.675	Unidentified	0.03
24.204	Phenethyl alcohol	0.08
25.371	allo-Ocimene	0.11
25.580	Unidentified	0.01
25.945	Benzyl nitrile	0.07
26.205	Unidentified	0.02
26.728	Camphor	0.01
28.335	Unidentified	0.02
29.046	Terpinen-4-ol	0.08
29.521	Unidentified	0.01
29.779	Methyl salicylate	0.03
30.062	alpha-Terpineol	5.20
32.026	Nerol	0.85
32.954	Neral	0.01
33.800	Linalyl acetate + Geraniol	7.42
34.045	2-Phenethyl acetate	0.12
35.002	Geranial	0.03
36.512	Indole	0.26
39.580	Unidentified	0.02
39.794	methyl Anthranilate	0.44
40.295	alpha-Terpinyl acetate	0.03
41.058	Neryl acetate	1.66
42.347	Geranyl acetate	3.39
45.078	beta-Caryophyllene	0.53
47.132	(E)-beta-Farnesene	0.03
47.334	alpha-Humulene	0.02
49.804	Bicyclogermacrene	0.05
53.694	trans-Nerolidol	1.67
55.640	Unidentified	0.03
62.438	(2E,6E)-Farnesol	1.09
71.548	Unidentified	0.04

Chromatogram Neroli - BIOAROMA



Comments:

The analysis of this Neroli batch sample meets the expected chemical profile for authentic essential oil of *Citrus aurantium*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

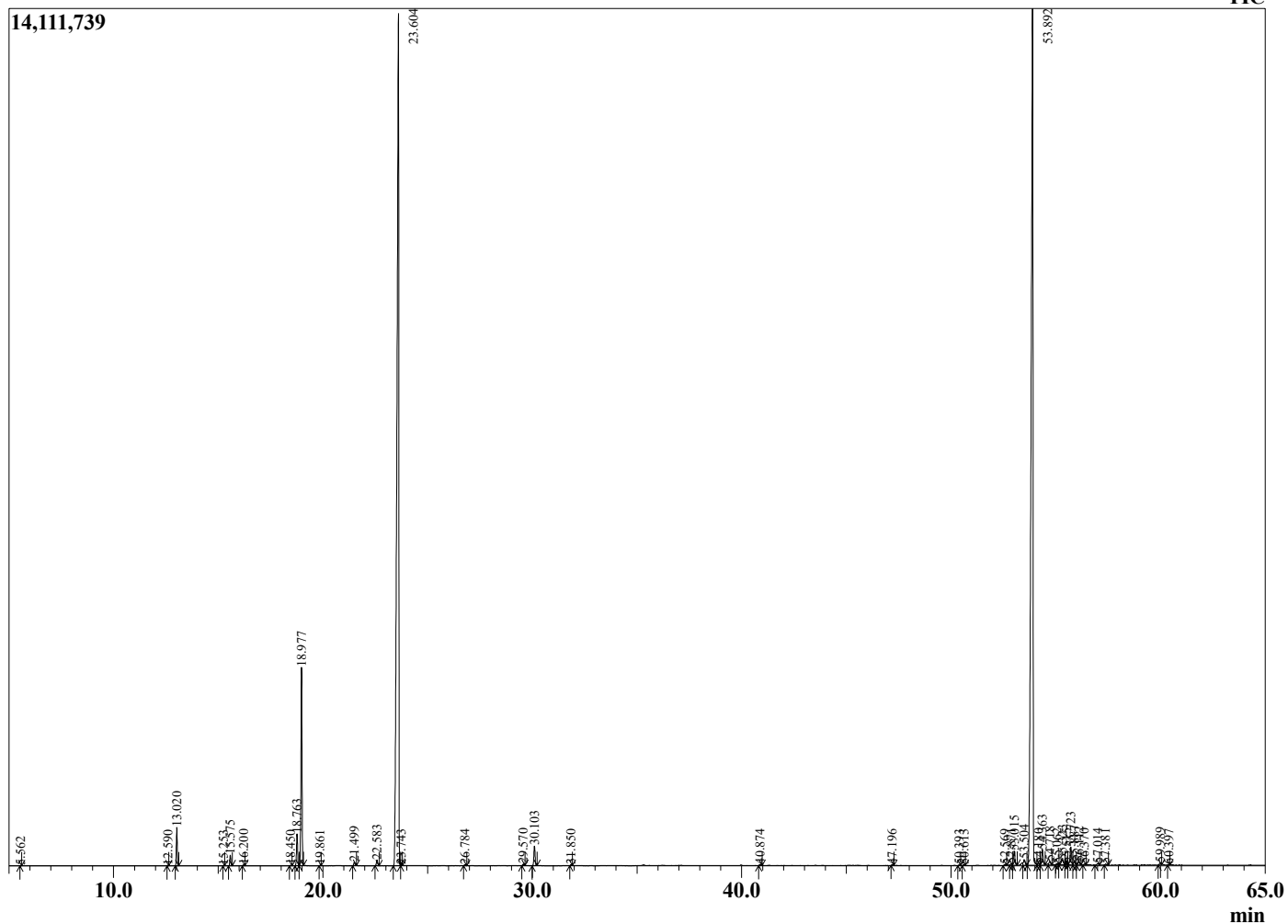
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 7/11/2020 12:22:16 PM  
 Sample Type : Essential Oil  
 Sample Name : Nerolina - BIOAROMA  
 Sample ID : BA18FAM  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
5.562	Methyl isobutyl ketone	0.01
12.590	alpha-Thujene	0.01
13.020	alpha-Pinene	0.94
15.253	Sabinene	0.00
15.575	beta-Piene	0.29
16.200	Myrcene	0.02
18.450	para-Cymene	0.01
18.763	Limonene	0.95
18.977	1,8-cineole	5.76
19.861	cis-beta-Ocimene	0.01
21.499	trans-Linalool oxide (furanoid)	0.11
22.583	cis-Linalool oxide (furanoid)	0.18
23.604	Linalool	43.21
23.743	Unidentified	0.02
26.784	Camphor	0.04
29.570	Terpenediol	0.05
30.103	alpha-Terpineol	0.65
31.850	Unidentified	0.03
40.874	Unidentified	0.03
47.196	trans-beta-Farnesene	0.02
50.393	trans-alpha-Farnesene	0.02
50.613	beta-Bisabolene	0.02
52.569	trans-alpha-Bisabolene	0.04
52.871	Elemicin	0.06
53.015	Elemol	0.55
53.504	cis-Dihydronerolidol	0.24
53.892	Nerolidol	44.24
54.180	Unidentified	0.06
54.363	trans-Dihydronerolidol	0.60
54.718	Spathulenol	0.16
55.062	Unidentified	0.05
55.323	Gleenol	0.26
55.515	Unidentified	0.04
55.723	Viridiflorol	0.73
55.887	Guaiol	0.17
56.112	Unidentified	0.13
56.370	Ledol	0.03
57.014	Unidentified	0.08
57.381	Humulane-1,6-dien-3-ol	0.04
59.989	Unidentified	0.10
60.397	Unidentified	0.03
		100.00

Chromatogram Nerolina - BIOAROMA



Comments:

The analysis of this Nerolina batch sample meets the expected chemical profile for authentic essential oil of *Melaleuca quinquenervia*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

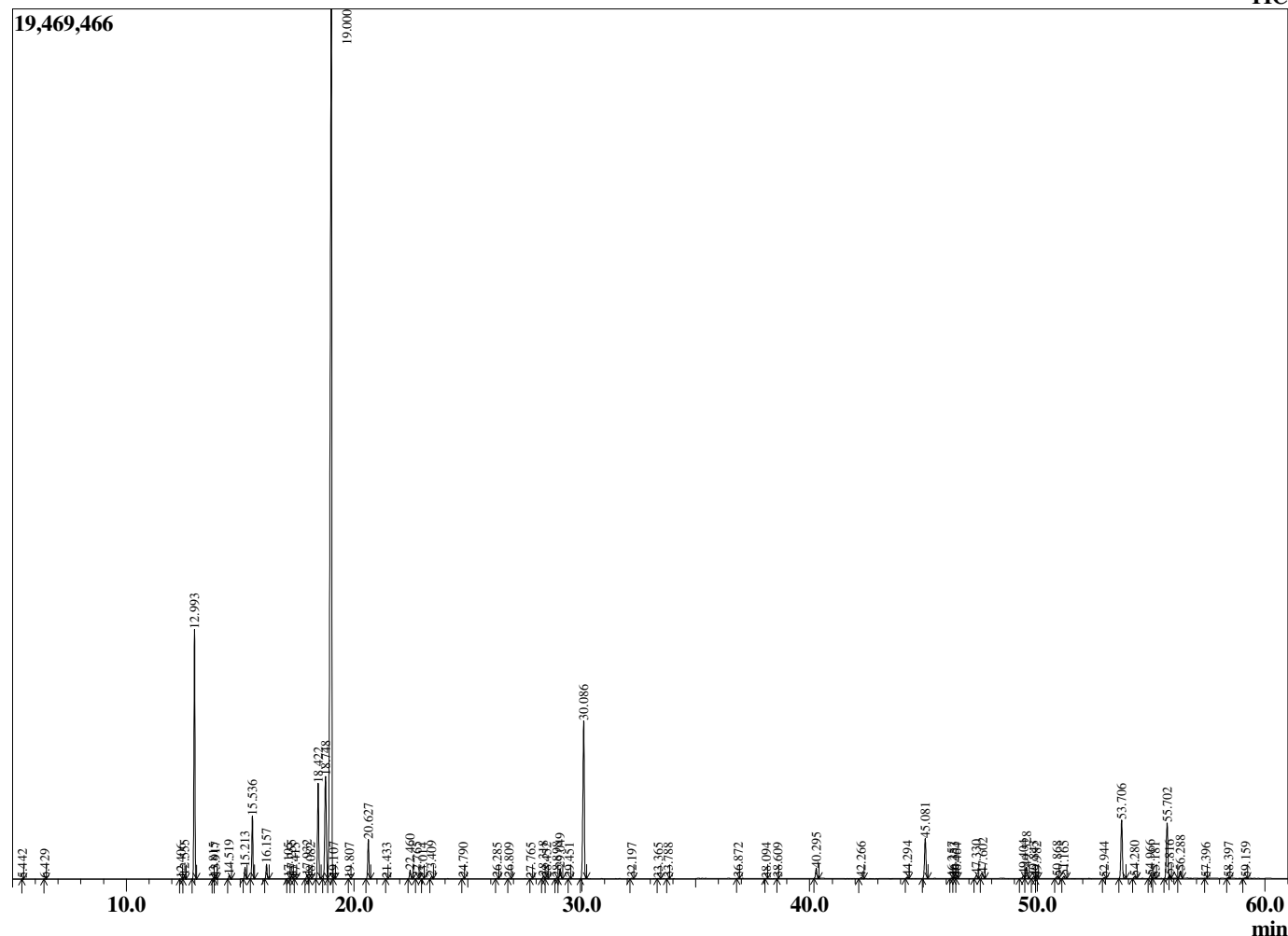
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 10/22/2020 2:07:49 AM  
 Sample Type : Essential Oil  
 Sample Name : Niaouli Oil (ECO)-  
 Sample ID : BIOAROMA : BA29IAJ  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
4.228	3-Methylbutanal	0.01
5.442	1-Pentanol	0.01
6.429	Methyl 2-methylbutyrate	0.01
12.406	Tricyclene	0.01
12.555	alpha-Thujene	0.13
12.993	alpha-Pinene	9.56
13.815	alpha-Fenchene	0.02
13.917	Camphene	0.08
14.519	Benzaldehyde	0.16
15.213	Sabinene	0.47
15.536	beta-Pinene	2.53
16.157	Myrcene	0.58
17.105	Pseudolimonene	0.04
17.255	alpha-Phellandrene	0.12
17.415	delta-Carene	0.01
17.932	alpha-Terpinene	0.15
18.082	ortho-Cymene	0.01
18.422	para-Cymene	4.23
18.748	Limonene	5.96
19.000	1,8-cineole	52.28
19.107	(Z)-beta-Ocimene	0.04
19.807	(E)-beta-Ocimene	0.02
20.627	gamma-Terpinene	1.73
21.433	trans-Sabinene hydrate	0.01
22.460	Terpinolene	0.39
22.765	Dehydro-para-cymene	0.03
23.014	Methyl benzoate	0.01
23.409	Linalool	0.11
24.790	alpha-Fenchol	0.03
26.285	trans-Pinocarveol	0.03
26.809	Isosopulegol	0.02
27.765	Pinocarvone	0.01
28.318	delta-Terpineol	0.12
28.452	Borneol	0.03
28.898	Unidentified	0.04
29.049	Terpinen-4-ol	0.50
29.451	para-Cymen-8-ol	0.03
30.086	alpha-Terpineol	8.38
32.197	Unidentified	0.04
33.365	Carvone	0.02
33.788	Geraniol	0.02
36.872	Unidentified	0.02
38.094	Unidentified	0.01
38.609	Unidentified	0.01
40.295	alpha-Terpinyl acetate	0.52
42.266	alpha-Copaene	0.08
44.294	alpha-Gurjunene	0.08
45.081	beta-Caryophyllene	2.13
46.257	Aromadendrene	0.03
46.353	6,9-Guanidene	0.07
46.464	Unidentified	0.01
47.330	alpha-Humulene	0.19
47.602	Alloaromadendrene	0.25
49.404	beta-Selinene	0.21
49.528	Viridiflorene	0.64
49.843	alpha-Selinene	0.11
49.982	alpha-Murolene	0.02
50.868	gamma-Cadinene	0.11
51.165	delta-Cadinene	0.13
52.944	Elemol	0.05
53.706	Nerolidol	3.15
54.280	Palustrol	0.11

Chromatogram Niaouli Oil (ECO)-BIOAROMA



Comments:

The analysis of this Niaouli batch sample meets the expected chemical profile for authentic essential oil of *Melaleuca quinquenervia*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
54.966	Caryophyllene oxide	0.17
55.181	Globulol	0.05
55.702	Viridiflorol	3.33
55.816	Guaiol	0.04
56.288	Ledol	0.41
57.396	Unidentified	0.01
58.397	tau-Cadinol	0.04
59.159	Unidentified	0.07
		100.00



Sample Information

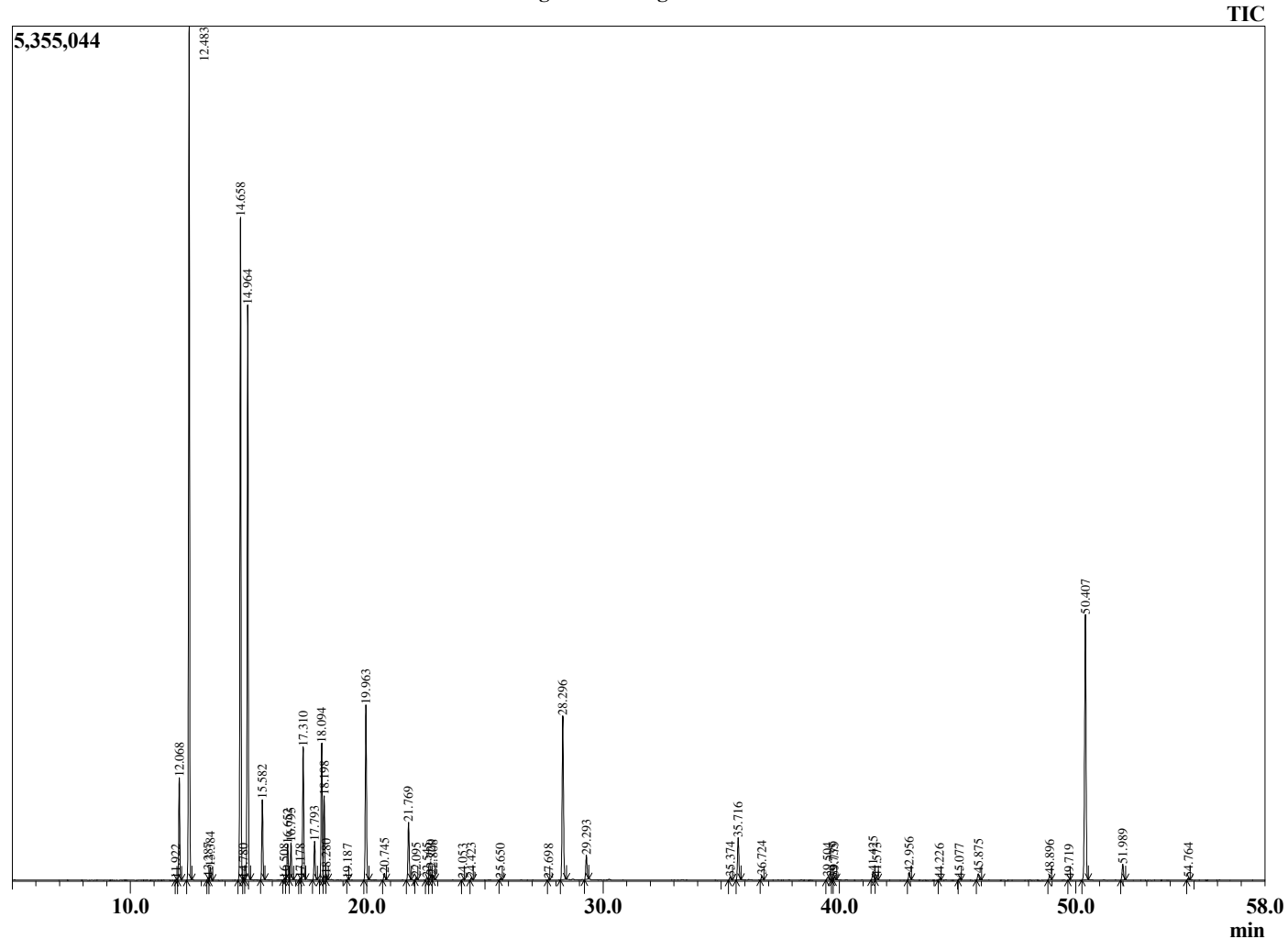
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 11/20/2020 4:44:11 PM  
 Sample Type : Essential Oil  
 Sample Name : Nutmeg Oil-  
 Sample ID : BIOAROMA : BA29IAK  
 Injection Volume : 0.10  
 Instrument ID : GC-4



Peak Report TIC

R.Time	Name	Area%
11.922	Unidentified	0.01
12.068	alpha-Thujene	2.52
12.483	alpha-Pinene	21.37
13.287	alpha-Fenchene	0.06
13.384	Camphene	0.34
14.658	Sabinene	17.61
14.780	Unidentified	0.03
14.964	beta-Pinene	15.24
15.582	Myrcene	2.17
16.508	Pseudolimonene	0.04
16.652	alpha-Phellandrene	1.01
16.795	delta-3-Carene	1.03
17.178	1,4-Cineole	0.04
17.310	alpha-Terpinene	3.82
17.793	para-Cymene	1.10
18.094	Limonene	3.98
18.198	beta-Phellandrene	2.45
18.280	1,8-cineole	0.09
19.187	(E)-beta-Ocimene	0.02
19.963	gamma-Terpinene	5.21
20.745	trans-Sabinene hydrate	0.21
21.769	Terpinolene	1.76
22.095	Dehydro-para-cymene	0.07
22.545	1-Adamantanol	0.07
22.720	Linalool	0.16
22.808	cis-Sabinene hydrate	0.15
24.053	endo-Fenchol	0.03
24.423	cis-p-menth-2-en-1-ol	0.07
25.650	trans-p-menth-2-en-1-ol	0.04
27.698	Borneol	0.02
28.296	Terpinen-4-ol	5.37
29.293	alpha-Terpineol	0.78
35.374	Bornyl acetate	0.10
35.716	Safrole	1.39
36.724	Unidentified	0.14
39.504	alpha-Terpinyl acetate	0.12
39.735	Citronellyl acetate	0.03
39.779	Eugenol	0.09
41.425	alpha-Copaene	0.29
41.573	Geranyl acetate	0.08
42.956	Methyleugenol	0.24
44.226	trans-beta-Caryophyllene	0.03
45.077	trans-alpha-Bergamotene	0.05
45.875	(E)-Isoeugenol	0.24
48.896	Methyl isoeugenol	0.18
49.719	beta-Bisabolene	0.02
50.407	Myristicin	9.48
51.989	Elemicin	0.54
54.764	Methoxyeugenol	0.07
		100.00

Chromatogram Nutmeg Oil-BIOAROMA



Comments:

The analysis of this Nutmeg batch sample meets the expected chemical profile for authentic essential oil of *Myristica fragrans*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

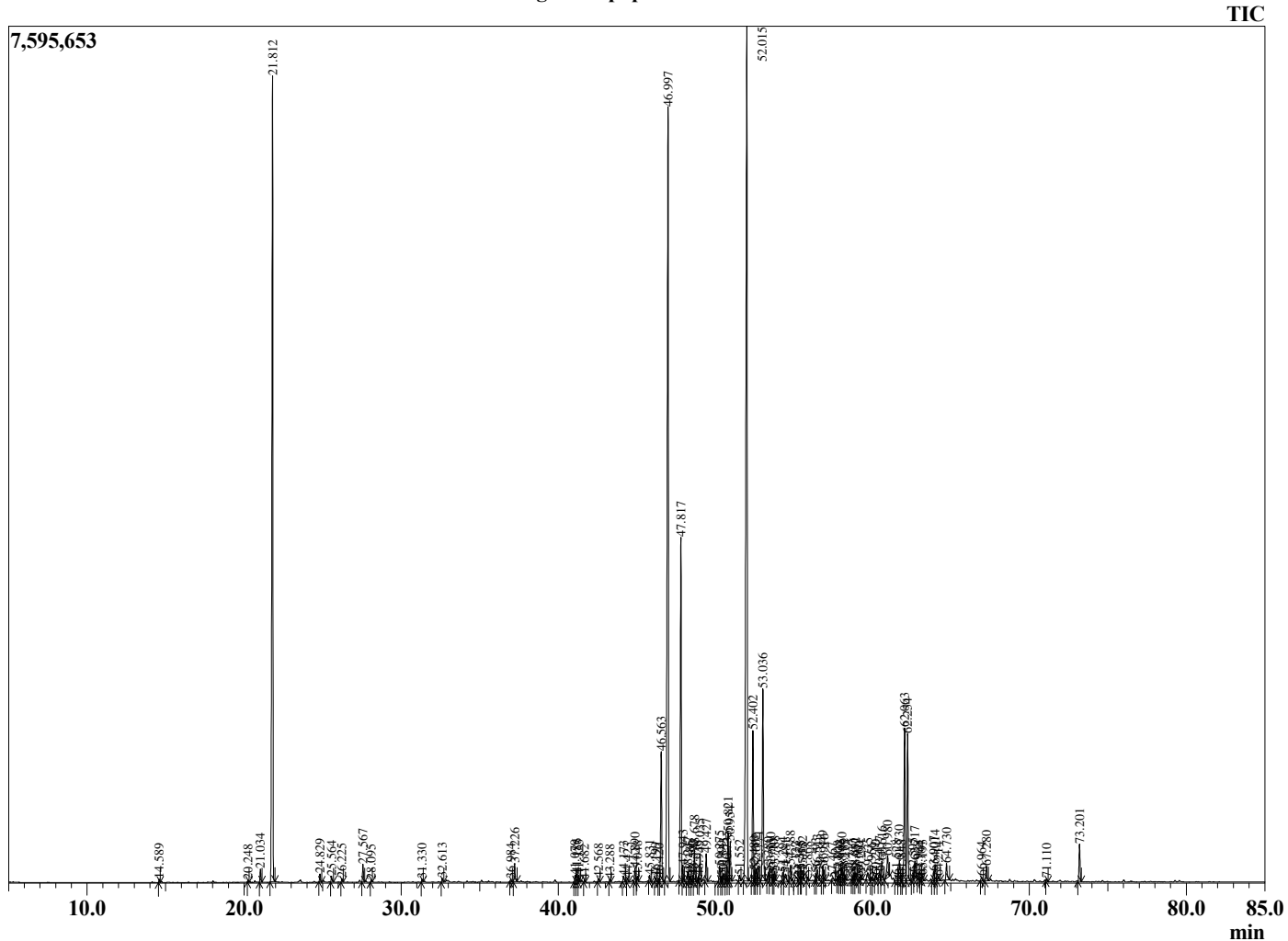
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 3/7/2021 12:00:46 AM  
 Sample Type : Essential Oil  
 Sample Name : Opoponax -  
 Sample ID : BIOAROMA : BA29IAL  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
14.589	2,7-Dimethyloxepine	0.05
20.248	Unidentified	0.04
21.034	(Z)-beta-Ocimene	0.23
21.812	(E)-beta-Ocimene	16.61
24.829	Rosefuran	0.13
25.564	Unidentified	0.12
26.225	Unidentified	0.06
27.567	4-Acetyl-1-methylcyclohexene	0.31
28.095	Unidentified	0.04
31.330	4'-Methyl acetophenone	0.05
32.613	Unidentified	0.07
36.984	Unidentified	0.05
37.226	Decanol	0.37
41.079	Unidentified	0.13
41.186	Unidentified	0.16
41.323	Unidentified	0.13
41.682	Unidentified	0.04
42.568	alpha-Longipinene	0.07
43.288	Unidentified	0.05
44.173	Longicyclene	0.13
44.423	Unidentified	0.08
44.890	7-epi-Sesquithujene	0.26
45.048	beta-Elemene	0.09
45.831	Sesquithujene isomer	0.12
46.199	Unidentified	0.08
46.420	Unidentified	0.06
46.563	cis-alpha-Bergamotene	2.78
46.997	alpha-Santalene	18.93
47.817	trans-alpha-Bergamotene	6.97
47.943	Unidentified	0.30
48.247	(Z)-beta-Farnesene	0.19
48.385	Unidentified	0.11
48.590	Unidentified	0.12
48.678	epi-beta-Santalene	0.62
48.935	Unidentified	0.08
49.035	(E)-beta-Farnesene	0.54
49.427	beta-Santalene	0.53
50.275	1-Dodecanol	0.32
50.399	trans-Cadina-1(6),4-diene	0.11
50.533	gamma-Curcumene	0.18
50.735	Ar-Curcumene	0.25
50.821	Germacrene D	1.01
50.954	(Z,E)-alpha-Farnesene	0.78
51.552	Curzerene	0.13
52.015	cis-alpha-Bisabolene	22.70
52.402	beta-Bisabolene	2.96
52.480	Unidentified	0.14
52.602	beta-Himachalene	0.23
52.771	Bicyclogermacrene	0.32
53.036	alpha-Teresantalic acid	4.09
53.380	Unidentified	0.17
53.530	(E)-gamma-Bisabolene	0.35
53.710	Unidentified	0.10
53.788	Unidentified	0.17
54.294	trans-alpha-Bisabolene	0.17
54.481	Unidentified	0.26
54.788	alpha-Elemol	0.32
55.122	Unidentified	0.15
55.378	Unidentified	0.08
55.465	Unidentified	0.07
55.552	Unidentified	0.22
55.868	Unidentified	0.09

Chromatogram Opoponax - BIOAROMA



Comments:

The analysis of this Opoponax batch sample meets the expected chemical profile for authentic essential oil of *Commiphora erythraea*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
56.393	Unidentified	0.13
56.513	Spathulenol	0.23
56.849	Unidentified	0.31
56.916	Unidentified	0.17
57.467	Unidentified	0.08
57.808	Curzerenone	0.05
57.932	Unidentified	0.08
58.060	Longiborneol	0.26
58.182	Unidentified	0.14
58.275	Unidentified	0.09
58.737	Unidentified	0.08
58.841	Unidentified	0.16
58.952	Unidentified	0.16
59.160	Humulane-1,6-dien-3-ol	0.05
59.294	Furanoeudesma-1,3-diene	0.11
59.735	gamma-Eudesmol + alpha-Acorenol	0.27
59.956	Unidentified	0.05
60.210	tau-Cadinol	0.08
60.457	Unidentified	0.20
60.616	Unidentified	0.45
60.980	Unidentified	0.64
61.528	14-Hydroxycaryophyllene isomer	0.18
61.730	Bergamotol isomer	0.48
61.848	beta-Bisabolol	0.11
62.063	Unidentified	3.30
62.254	(Z)-alpha-Santalal	3.07
62.595	cis-alpha-Bisabolol	0.14
62.717	trans-alpha-Bisabolol	0.34
62.928	Unidentified	0.06
63.104	Unidentified	0.07
63.193	(E)-alpha-Santalol	0.10
63.907	Unidentified	0.20
64.014	Unidentified	0.37
64.214	Unidentified	0.12
64.730	Unidentified	0.42
66.964	Benzyl benzoate	0.09
67.280	Unidentified	0.31
71.110	Unidentified	0.04
73.201	Unidentified	0.77
		100.00

Sample Information

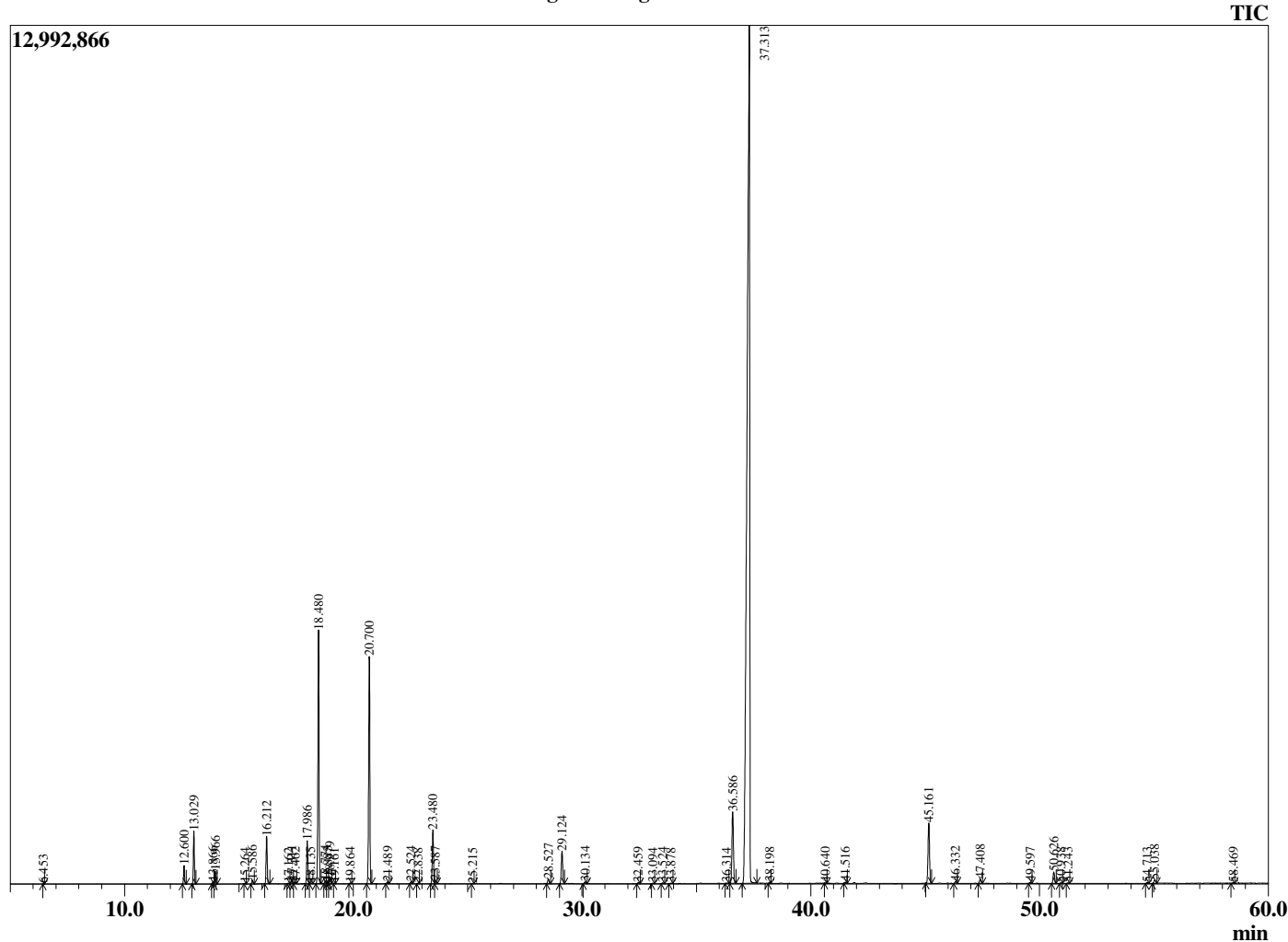
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 7/12/2020 10:02:43 AM  
 Sample Type : Essential Oil  
 Sample Name : Oregano -  
 Sample ID : BIOAROMA : BA18FAN  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
4.242	3-methylbutanal	0.01
4.355	2-methylbutanal	0.01
6.453	Methyl 2-methylbutyrate	0.01
12.600	alpha-Thujene	0.52
13.029	alpha-Pinene	1.53
13.866	alpha-Fenchene	0.07
13.966	Camphene	0.40
15.264	Sabinene	0.02
15.586	beta-Pinene	0.12
16.212	Myrcene	1.53
17.162	Pseudolimonene	0.02
17.311	alpha-Phellandrene	0.11
17.462	delta-3-Carene	0.04
17.986	alpha-Terpinene	1.44
18.135	ortho-Cymene	0.04
18.480	para-Cymene	8.45
18.774	Limonene	0.10
18.883	beta-Phellandrene	0.06
18.979	1,8-Cineole	0.23
19.161	Unidentified	0.02
19.864	trans-beta-Ocimene	0.03
20.700	gamma-Terpinene	8.07
21.489	trans-Sabinene hydrate	0.07
22.524	Terpinolene	0.07
22.838	para-Cymenene	0.02
23.480	Linalool	1.95
23.587	cis-Sabinene hydrate	0.11
25.215	cis-p-Menth-2-en-1-ol	0.01
28.527	Borneol	0.19
29.124	Terpinen-4-ol	1.32
30.134	alpha-Terpineol	0.08
32.459	Thymol methyl ether	0.05
33.094	Carvacrol methyl ether	0.02
33.524	Carvone	0.04
33.878	Unidentified	0.03
36.314	Unidentified	0.02
36.586	Thymol	3.14
37.313	Carvacrol	66.25
38.198	Unidentified	0.04
40.640	Eugenol	0.01
41.516	Thymol acetate	0.04
45.161	beta-Caryophyllene	2.65
46.332	Aromadendrene	0.07
47.408	alpha-Humulene	0.18
49.597	Viridiflorene	0.05
50.626	beta-Bisabolene	0.49
50.938	Elemol	0.03
51.243	delta-Cadinene	0.03
54.713	Spathulenol	0.03
55.038	Caryophyllene oxide	0.17
58.469	alpha-Muurolol	0.04
		100.00

Chromatogram Oregano - BIOAROMA



Comments:

The analysis of this Oregano batch sample meets the expected chemical profile for authentic essential oil of *Origanum vulgare*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

Sample Information

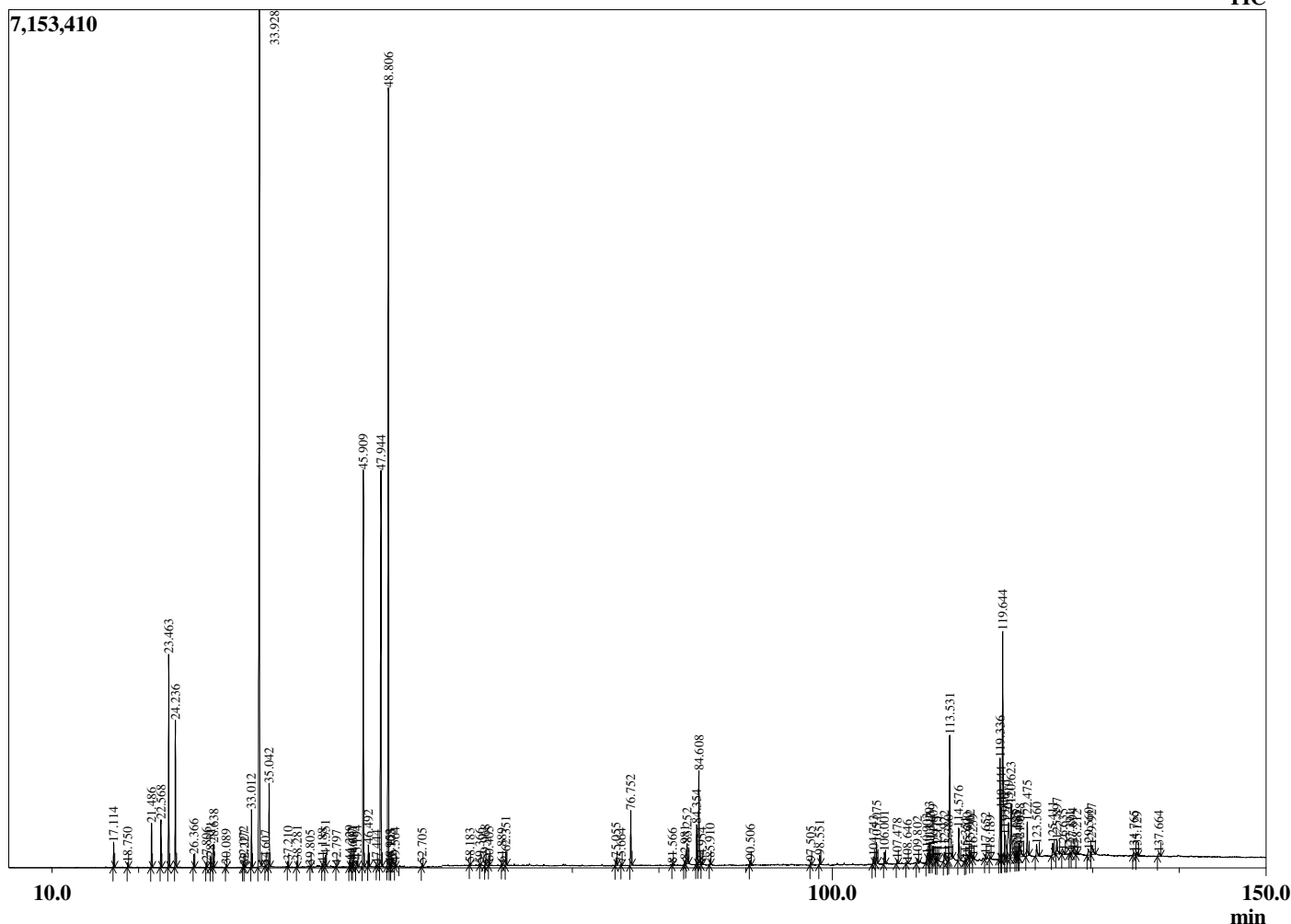
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 8/21/2020 1:33:20 AM  
 Sample Type : Essential Oil  
 Sample Name : Osmanthus Absolute -  
 Sample ID : BIOAROMA : BA08GQ  
 Injection Volume : 0.10  
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
3.062	Ethanol	0.03
17.114	Hex-3(Z)-enyl acetate	0.36
18.750	Limonene	0.07
21.486	cis-Linalool oxide (furanoid)	0.69
22.568	trans-Linalool oxide (furanoid)	0.75
23.463	Linalool	3.38
24.236	Phenethyl alcohol	2.32
26.366	Hex-3(Z)-enyl isobutyrate	0.20
27.806	4-Ethyl phenol	0.08
28.311	cis-Linalool oxide (pyranoid)	0.17
28.638	trans-Linalool oxide (pyranoid)	0.39
30.089	alpha-Terpineol	0.04
32.072	Nerol	0.10
32.227	Citronellol	0.03
33.012	Neral	0.95
33.928	Geraniol	19.53
34.607	Unidentified	0.02
35.042	Geranial	1.41
37.210	Theaspirane A	0.09
38.281	Theaspirane B	0.12
39.805	Unidentified	0.02
41.188	Unidentified	0.05
41.551	para-Methoxyphenylethyl alcohol	0.19
42.797	Unidentified	0.02
44.329	trans-beta-Damascone	0.10
44.607	alpha-Dihydroionone	0.05
44.691	Dihydrodehydro-beta-ionone	0.11
45.194	(E)-alpha-Ionone	0.17
45.909	beta-Dihydroionone	7.44
46.492	beta-Dihydroionol	0.38
47.444	Unidentified	0.02
47.944	gamma-Decalactone	9.22
48.806	(E)-beta-Ionone	16.75
48.953	5,6-Epoxy-5,6-dihydro-beta-ionone	0.04
49.108	Unidentified	0.03
49.564	Unidentified	0.07
52.705	Unidentified	0.07
58.183	3-Oxo-alpha-ionol	0.03
59.366	4-Hydroxy-beta-ionone	0.02
59.968	Unidentified	0.09
60.405	3-Oxo-7,8-dihydro-beta-ionol	0.07
61.889	Unidentified	0.04
62.351	Unidentified	0.26
75.055	Palmitic acid	0.18
75.664	Ethyl 9-hexadecenoate	0.03
76.752	Ethyl palmitate	1.10
81.566	Methyl linolenate	0.03
82.981	Oxacycloheptadec-8-en-2-one	0.12
83.252	Linolenic acid	0.58
84.354	Ethyl linoleate	0.85
84.608	Ethyl linolenate	2.26
84.954	Ethyl oleate	0.05
85.910	Ethyl stearate	0.13
90.506	Tricosane	0.11
97.505	Unidentified	0.06
98.551	Pentacosane	0.21
104.743	Phenyl palmitate	0.20
105.075	Unidentified	0.48
106.001	Heptacosane	0.28
107.478	Unidentified	0.10
108.646	Unidentified	0.06
109.802	2,3-Epoxy-2,3-dihydrosqualene	0.17

Chromatogram Osmanthus absolute - BIOAROMA



R.Time	Name	Area%
110.903	Unidentified	0.14
111.193	Unidentified	0.39
111.313	Unidentified	0.10
111.609	Unidentified	0.35
111.975	Unidentified	0.07
112.111	Unidentified	0.09
112.922	Unidentified	0.22
113.380	Unidentified	0.06
113.531	Unidentified	3.60
114.576	Unidentified	0.79
115.351	Unidentified	0.04
115.600	Unidentified	0.15
115.902	Unidentified	0.18
116.239	Unidentified	0.07
117.652	Unidentified	0.10
118.189	Unidentified	0.05
119.336	Unidentified	2.72
119.444	Unidentified	1.11
119.644	Unidentified	7.27
119.940	Vitamin E	0.99
120.319	Unidentified	1.97
120.623	Unidentified	2.03
121.185	Unidentified	0.17
121.332	Unidentified	0.19
121.460	Unidentified	0.04
121.628	Unidentified	0.57
122.475	Unidentified	0.78
123.560	Unidentified	0.37
125.411	Unidentified	0.34
125.897	Fucosterol	0.49
126.635	Unidentified	0.16
127.391	Unidentified	0.05
127.694	Unidentified	0.16
128.212	Unidentified	0.09
129.560	Unidentified	0.30
129.927	Unidentified	0.48
134.765	Unidentified	0.11
135.129	Unidentified	0.10
137.664	Unidentified	0.15
		100.00