

Sample Information

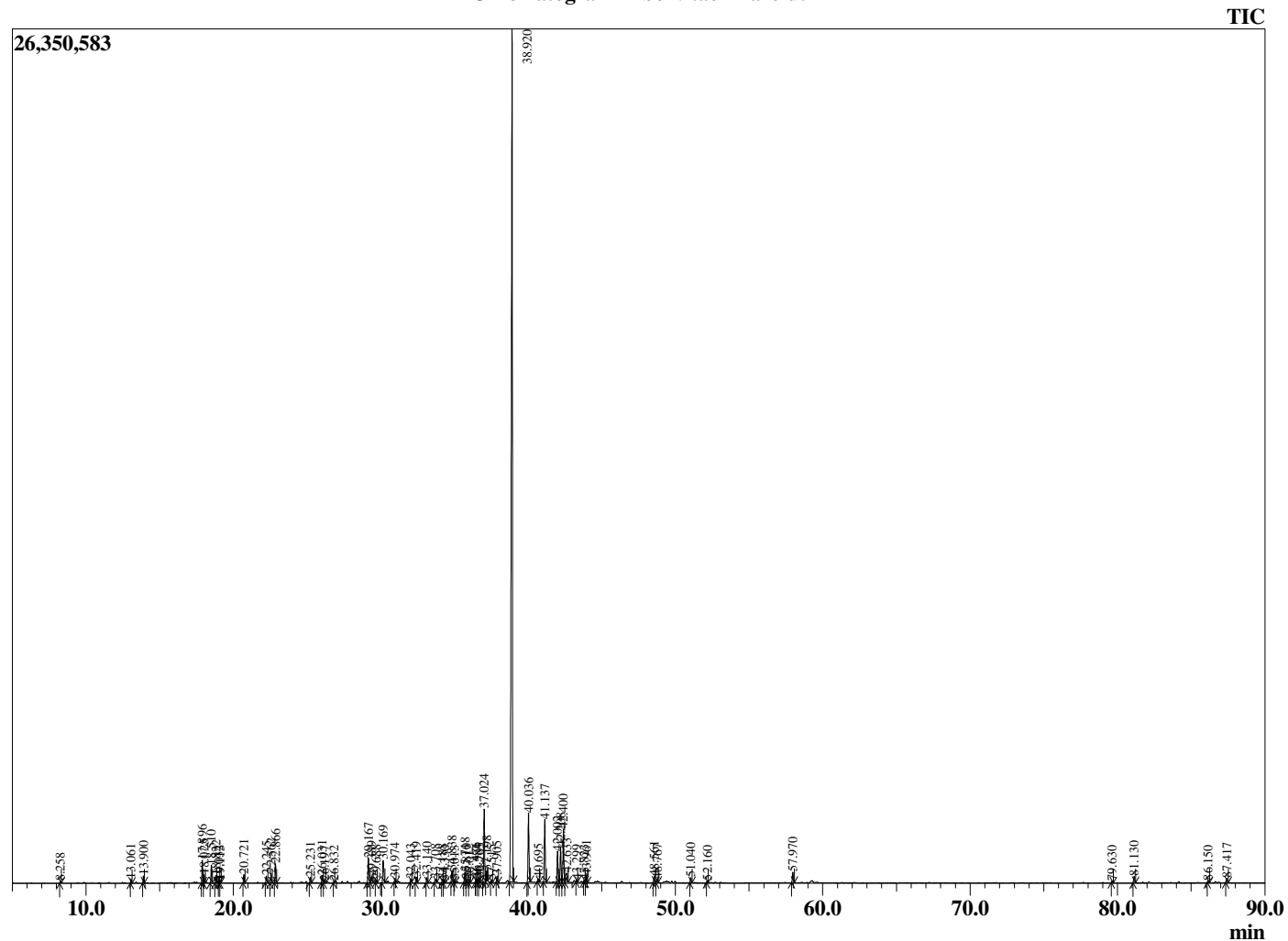
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 2/4/2020 10:09:28 AM
 Sample Type : Essential Oil
 Sample Name : Arborvitae - Barefut
 Sample ID : 0102
 Injection Volume : 0.10
 Instrument ID: : GC-3



Peak Report TIC

R.Time	Name	Area%
8.258	Furfural	0.07
13.061	alpha-Pinene	0.16
13.900	alpha-Fenchene	0.30
17.896	1,4-Cineole	1.09
18.025	alpha-Terpinene	0.38
18.510	para-Cymene	0.82
18.822	Limonene	0.34
19.032	1,8-Cineole	0.11
19.113	Unidentified	0.11
20.721	gamma-Terpinene	0.41
22.245	Unidentified	0.39
22.562	Terpinolene	0.48
22.866	para-Cymenene	0.98
25.231	alpha-Fenchol	0.29
26.031	Terpin-3-en-1-ol	0.39
26.197	Unidentified	0.10
26.832	Camphor	0.08
29.167	Terpinen-4-ol	1.54
29.389	Unidentified	0.39
29.688	Unidentified	0.16
30.169	alpha-Terpineol	1.59
30.974	trans-Shisool	0.22
32.043	4-Isopropyl phenol	0.18
32.419	Unidentified	0.29
33.140	Thymol methyl ether	0.30
33.708	cis-Myrntanol	0.22
34.188	Myrntanol isomer	0.18
34.330	Carvenone	0.11
34.838	trans-Myrntanol	0.65
35.013	Methyl myrtenate isomer	0.10
35.718	Unidentified	0.60
35.810	Phellandral	0.16
36.012	Methyl thujanate isomer	0.15
36.476	Unidentified	0.21
36.584	Methyl thujanate isomer	0.17
36.705	Unidentified	0.25
37.024	Methyl myrtenate	4.17
37.198	Carvacrol	0.55
37.515	Unidentified	0.11
37.905	Methyl thujanate isomer	0.36
38.920	Methyl thujate	61.81
40.036	Methyl myrtenate isomer	4.06
40.695	Methyl thujate isomer	0.19
41.137	Methyl myrtenate iosmer	3.60
42.002	Methyl myrtenate iosmer	1.75
42.208	Methyl myrtenate iosmer	2.07
42.400	Methyl myrtenate iosmer	3.33
42.633	Thujic acid	1.05
43.299	Unidentified	0.09
43.823	Unidentified	0.10
43.961	Methyl trans-4-methylcinnamate	0.34
48.561	Unidentified	0.34
48.767	Unidentified	0.20
51.040	Nootkatene	0.29
52.160	alpha-Maaline	0.10
57.970	gamma-Eudesmol	0.62
79.630	Abietatriene	0.10
81.130	Abietadiene	0.41
86.150	Unidentified	0.11
87.417	Unidentified	0.28
		100.00

Chromatogram Arborvitae - Barefut



Comments:

The analysis of this Arborvitae, Western Red Cedar batch sample meets the expected chemical profile for authentic essential oil of *Thuja plicata*. 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.