

Customer :

SENSOLEO E.U.

**Geibing 1
4792 MUNZKIRCHEN
AUSTRIA**

Sample Nature : ESSENTIAL OIL
Botanical name : ABIES GRANDIS
Sample name : ABIES GRANDIS
Batch number : 21022
Origin : -
Plant part : NEEDLE
Our reference : HU57

Receipt : 28/06/2022

Analysis date : 30/06/2022

Packaging : Amber flask of 5 ml

Requested analysis : GCsimple

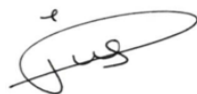
Sample storage : 1 year - room temperature

The above information is provided by the customer and sampling is under his responsibility

Comments :

Report validated by :

Line Pauset - *Laboratory manager*



Report written by :

Fanny Delater - *Analyst technician*

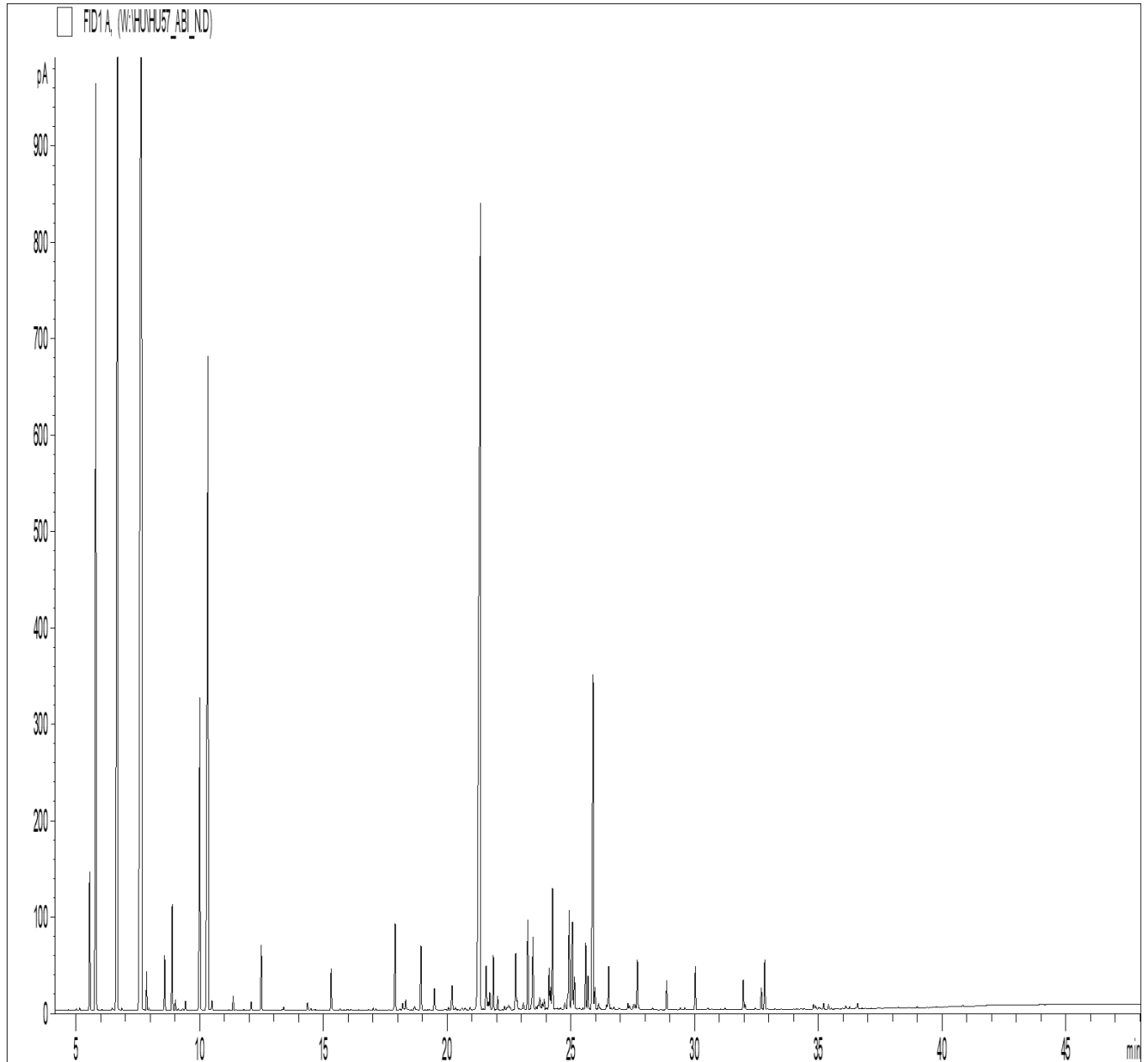


GAS CHROMATOGRAPHY (according to the norm NF ISO 11024)

Analysis conditions :

- . GC/MS Agilent 7890 / 5975 (Black) - Column : VF WAX (polar) 60 m * 0.25 mm * 0.25 µm
- . GC/FID Agilent 6890 – Column : VF WAX (polar) 60 m * 0.25 mm * 0.25 µm
- . Temperature program : (5S) 5 min to 65°C - 5°C/min until 250°C - 18 min to 250°C
- . Sample injection / split : 1 µl of 10 % solution in hexane
- . Mass range : 30 to 350 - Oil compounds are identified by a combination of retention times and mass spectra library (our own database and NIST commercial database).
- . Percentages are calculated from GC/FID peaks areas without using corrections factors.

Chromatographic profile :



Identification results : ABIES GRANDIS - BATCH N° 21022

Peaks	RT (min)	Compound name	%	Norm (%)
1	5.56	TRICYCLENNE	1.22	
2	5.81	alpha-PINENE	8.39	
3	6.68	CAMPHENE	13.04	
4	7.70	beta-PINENE	24.51	
5	10.01	LIMONENE	3.36	
6	10.34	beta-PHELLANDRENE	9.06	
7	21.34	BORNYL ACETATE	15.26	
8	24.26	BORNEOL	1.23	
9	24.93	GERMACRENE D	1.07	
10	25.90	delta-CADINENE	4.31	
		TOTAL	81.45	