

Table No. 1. **Physical properties of Heglig, Unity, El-Nar, Toma South, El-Toor, and Bamboo Fields.**

Field	Test							
	Water Cut %	Bottom Sediment %	API @ 60 °F	Relative Density @ 60 °F	Gel Point °C	Pour Point °C	Viscosity @ 28 °C <i>mPa.S</i>	Wax Content %
Heglig	78.0	0.1	28.5	0.884	18.0	21.0	425.6	17.7
Unity	46.6	0.1	34.0	0.855	24.0	27.0	377.6	16.0
El-Narr	50.0	< 0.1	40.5	0.823	36.0	39.0	3695.7	22.4
Toma South	36.0	< 0.1	37.2	0.839	36.0	39.0	4256.1	25.5
El-Toor	62.0	< 0.1	37.2	0.839	40.0	42.0	5879.6	30.5
Bamboo	62.0	< 0.1	19.5	0.937	6.00	09.0	5214.3	0.10

Table No. 2: **Pour Point of Crude Oil for Different Fields**

Field	Pour Point °C
Heglig	21.0
Unity	27.0
El-Narr	39.0
Toma South	39.0
El-Toor	42.0
Bamboo	09.0
Composite	33-36

Table No. 3: **% Contributions of different field in Nile Blend**

Field	% Contribution
Heglig	18.7

Unity	23.2
El-Narr	15.2
Toma South	21.4
El-Toor	12.8
Bamboo	8.7

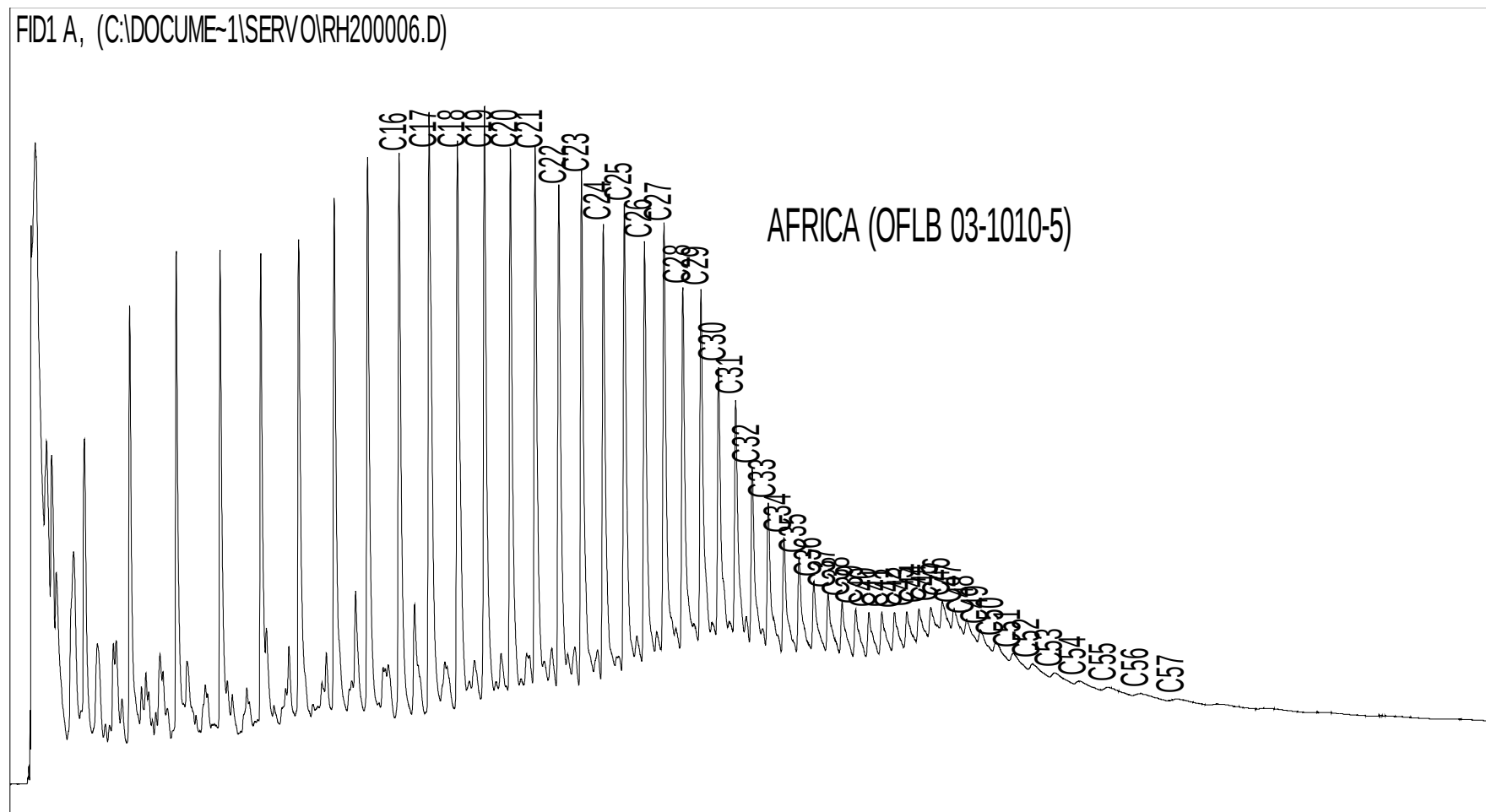


Fig 12: Gas Chromatograph of El-Toor Crude

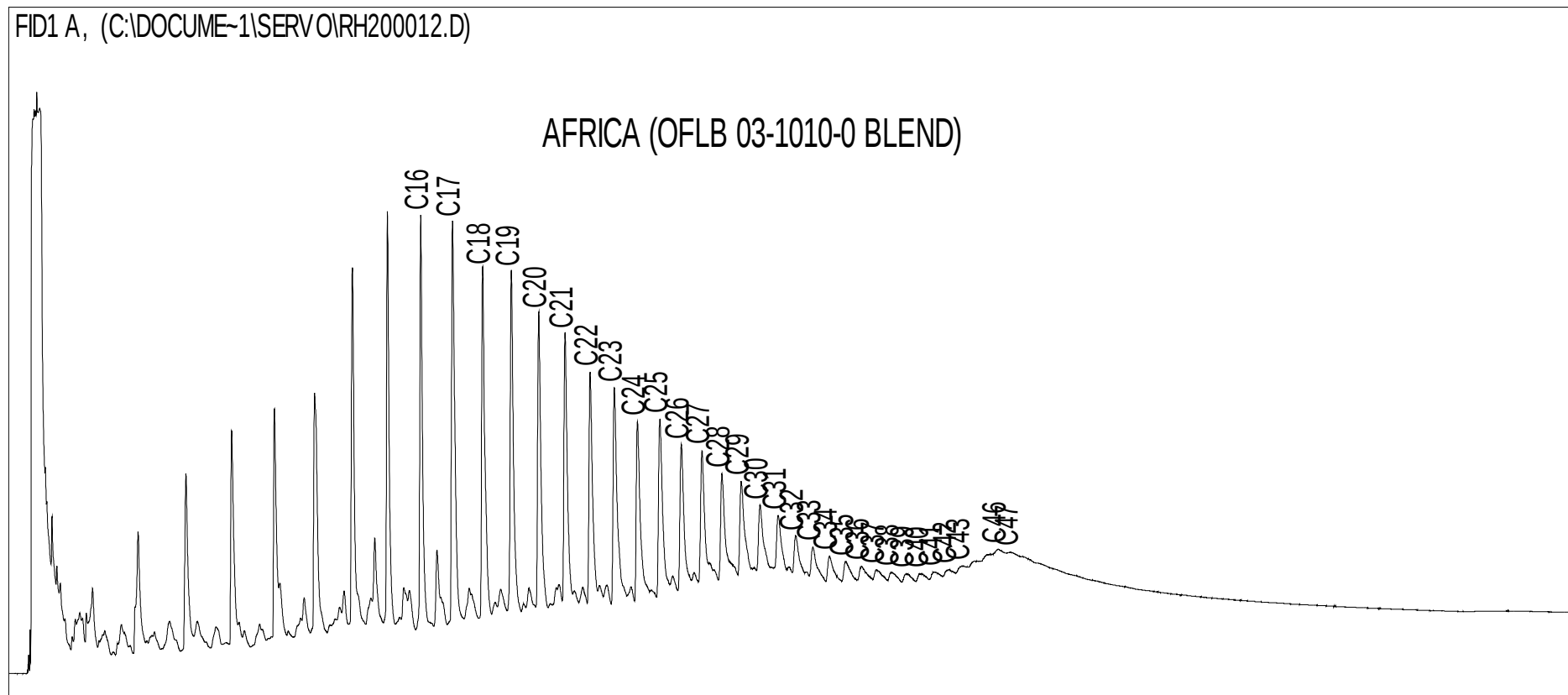


Fig 13: Carbon Number Distribution in Nile Blend

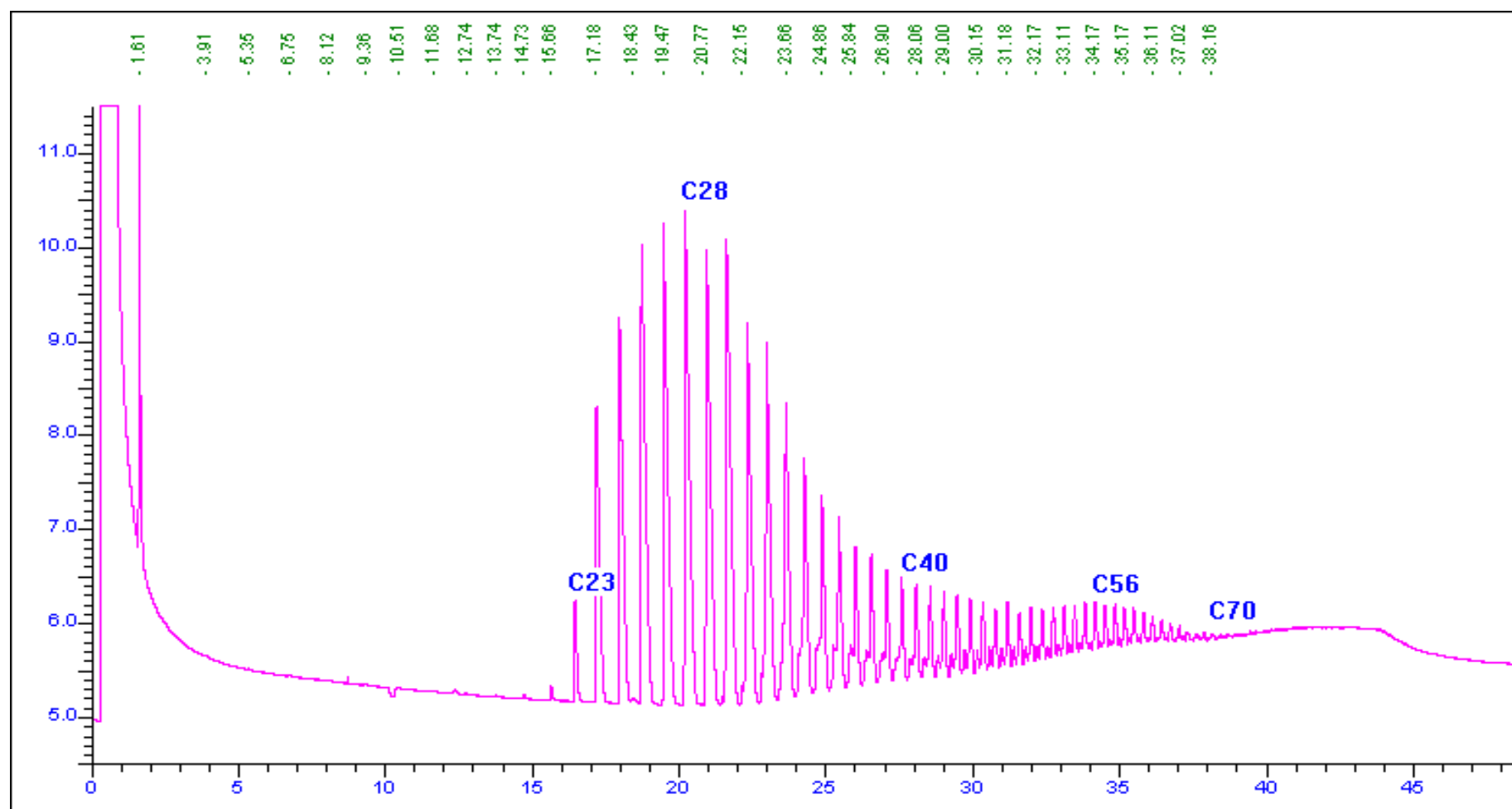


Fig 14: Gas Chromatograph of separate wax from El-Toor Crude.

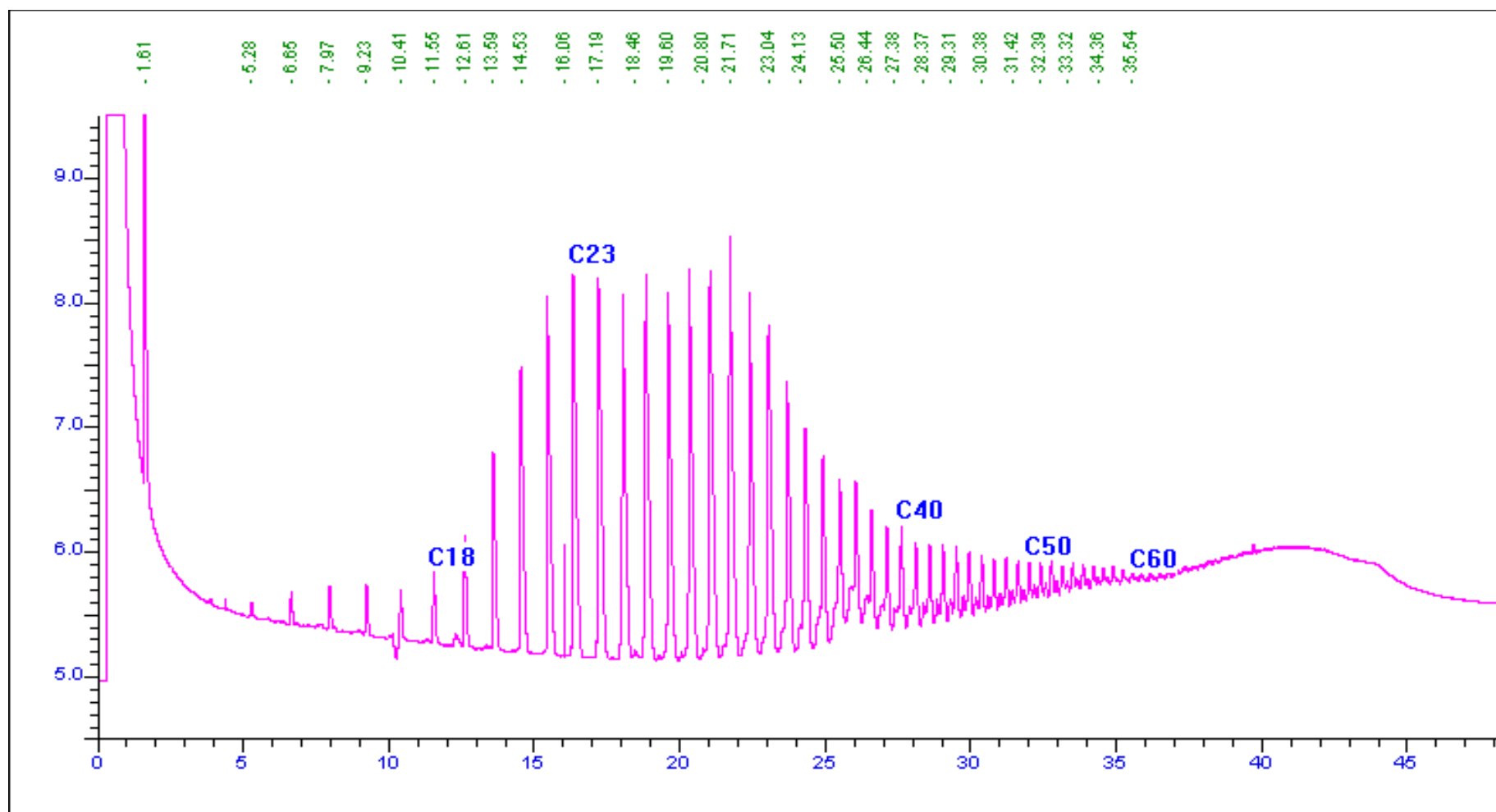


Fig 15: Carbon Number Distribution of wax separated from Nile Blend

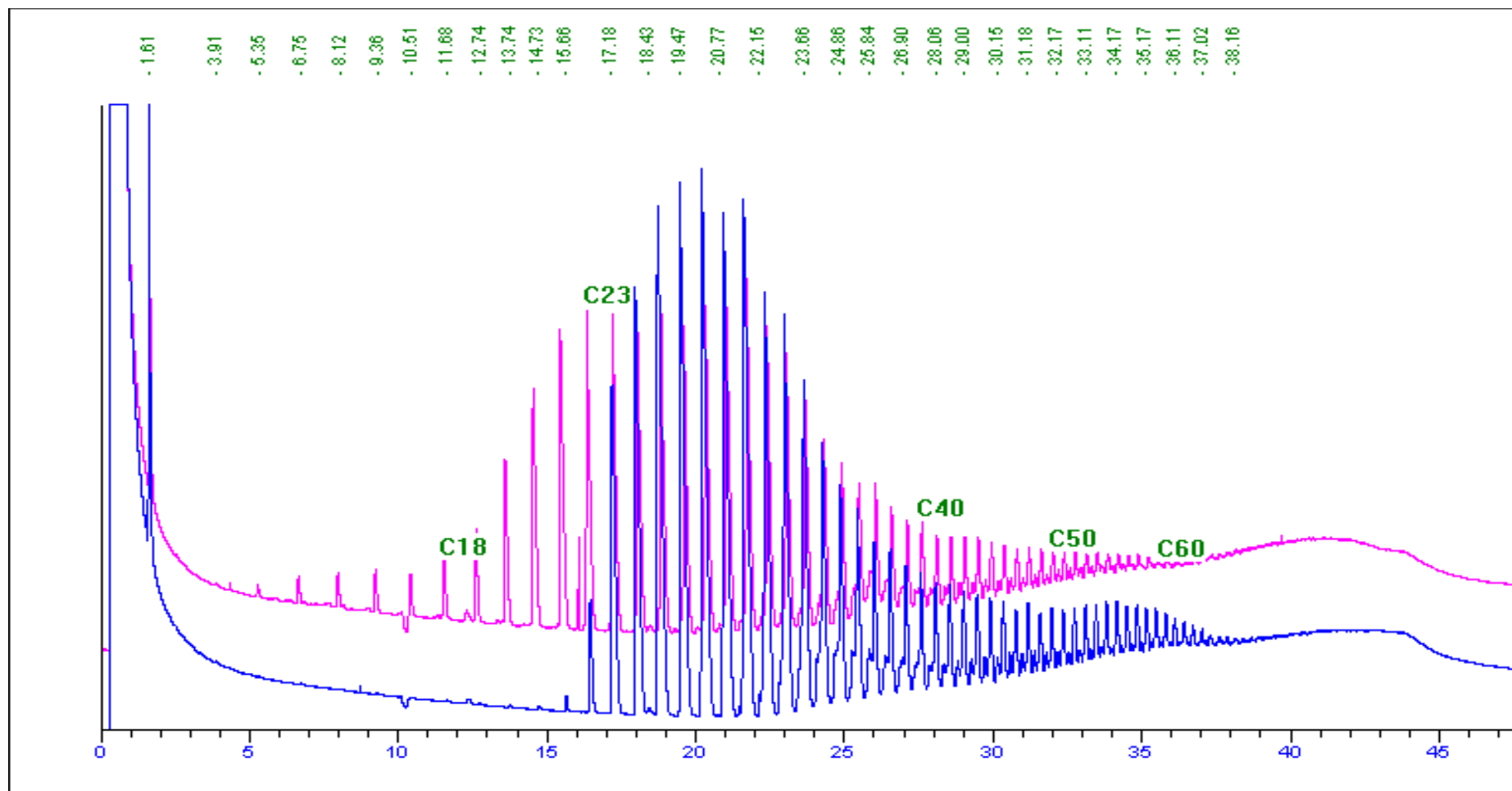


Fig 16: Carbon Number Distribution of wax separated from Nile Blend & El-Toor.

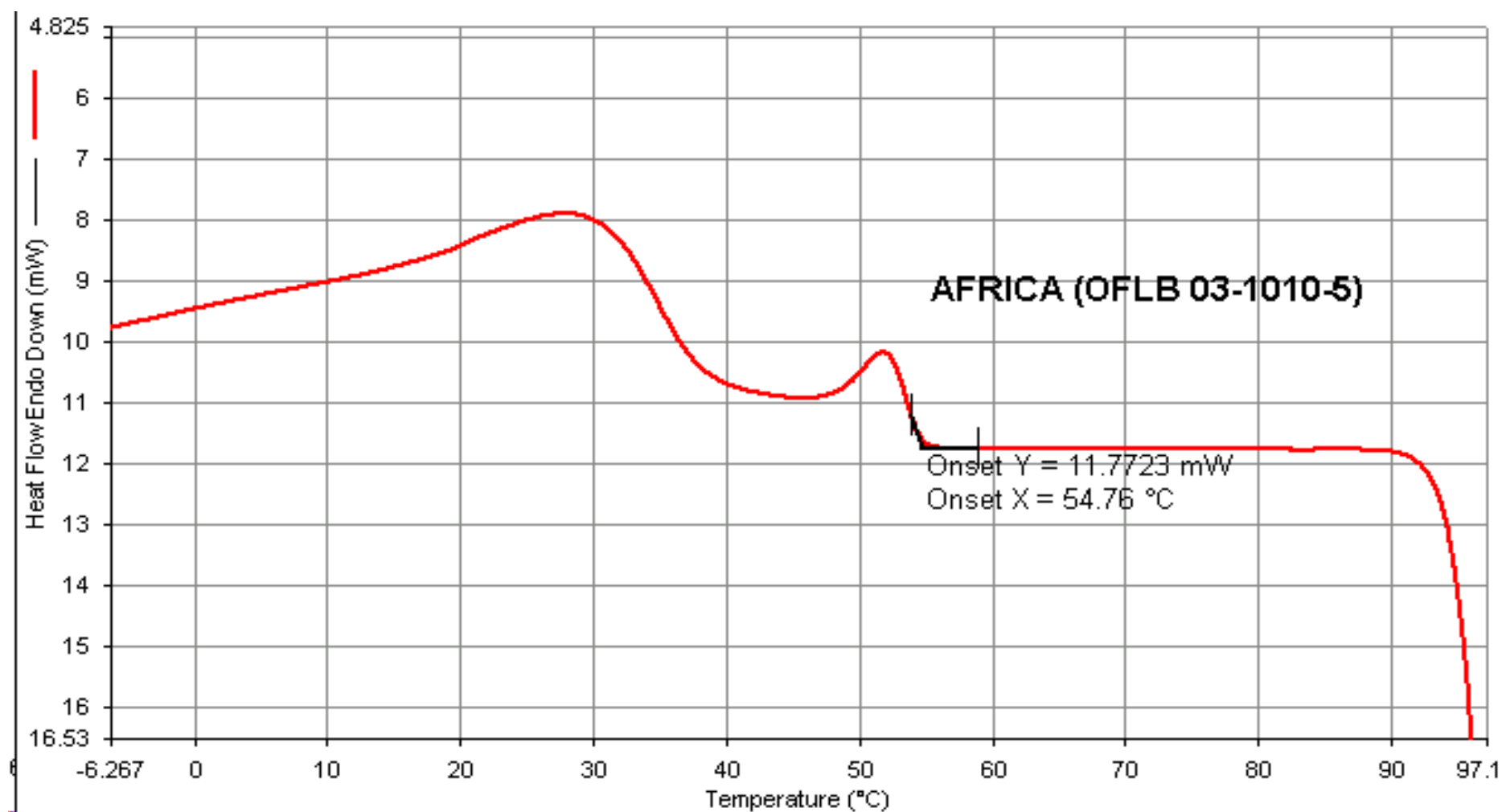


Fig 17: Differential Scanning Colorigram of El-Toor Crude.

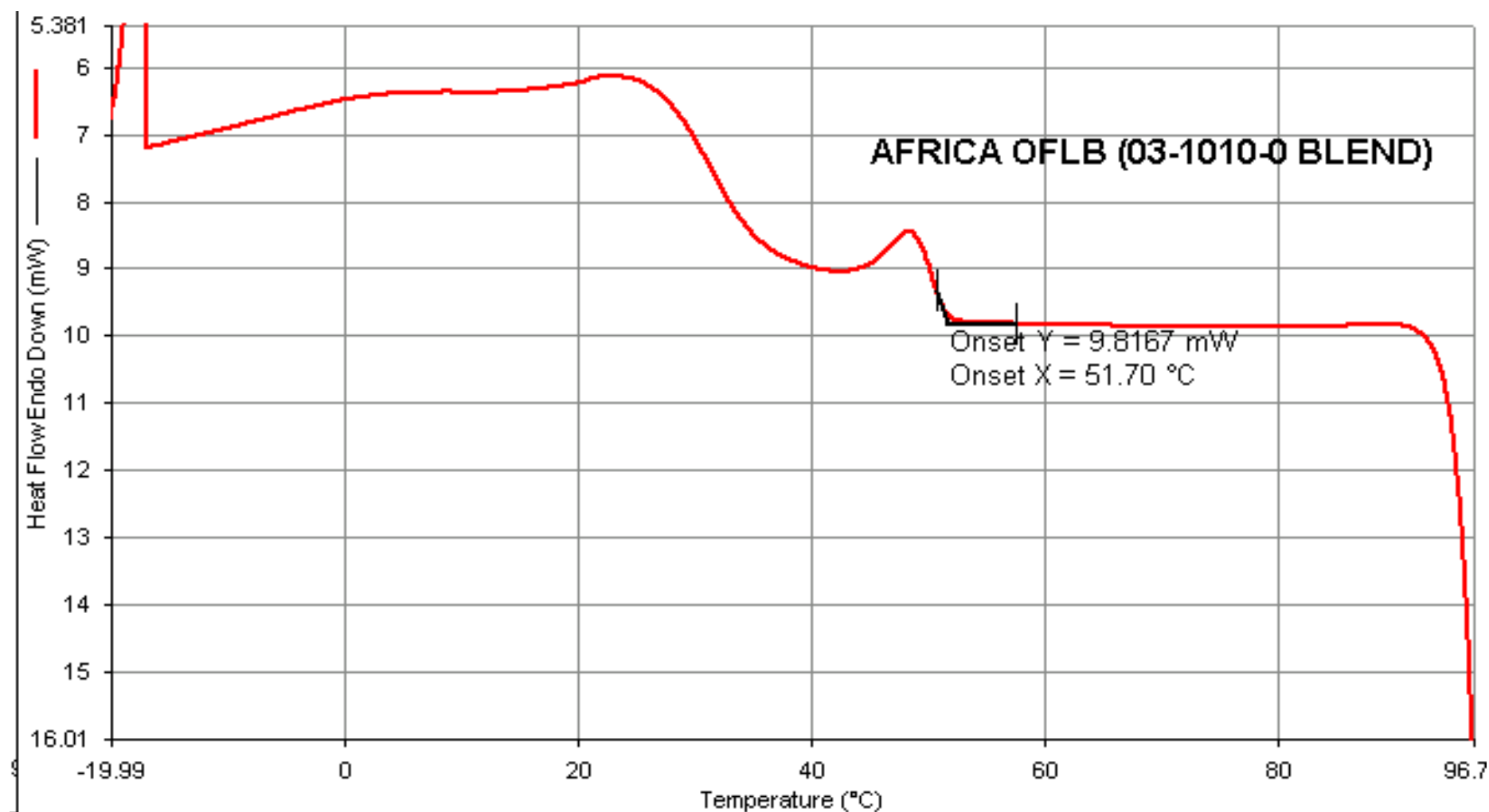


Fig 18: Differential Scanning Colorigram of Nile Blend Crude.

Table No. 4: **Effect of Heat Treatment on Viscosity of Nile Blend.**

	<i>Viscosity (at different pre-heat temperatures)</i>				
Temperature	95.0 C	85.0 C	83.0 C	80.0 C	75.0 C
70	7.370	3.69	11.06	1.84	11.06
65	11.06	5.53	14.74	5.53	14.74
60	11.06	7.370	16.58	7.73	16.58
55	12.90	7.370	16.58	7.73	20.27
50	18.43	12.90	20.27	16.58	25.60
45	22.11	22.11	27.64	25.8	31.33
40	27.64	33.17	33.17	38.7	40.54
35	44.23	42.38	49.75	53.44	62.65
34	47.91	44.23	53.44	60.81	70.02
33	53.44	49.75	60.81	66.34	79.24
32	55.28	57.12	64.50	79.24	88.45
31	58.67	62.65	71.87	90.29	97.66
30	70.24	73.71	81.08	101.23	108.43
29	83.42	88.45	92.14	114.04	119.51
28	92.85	97.51	105.04	122.67	127.02

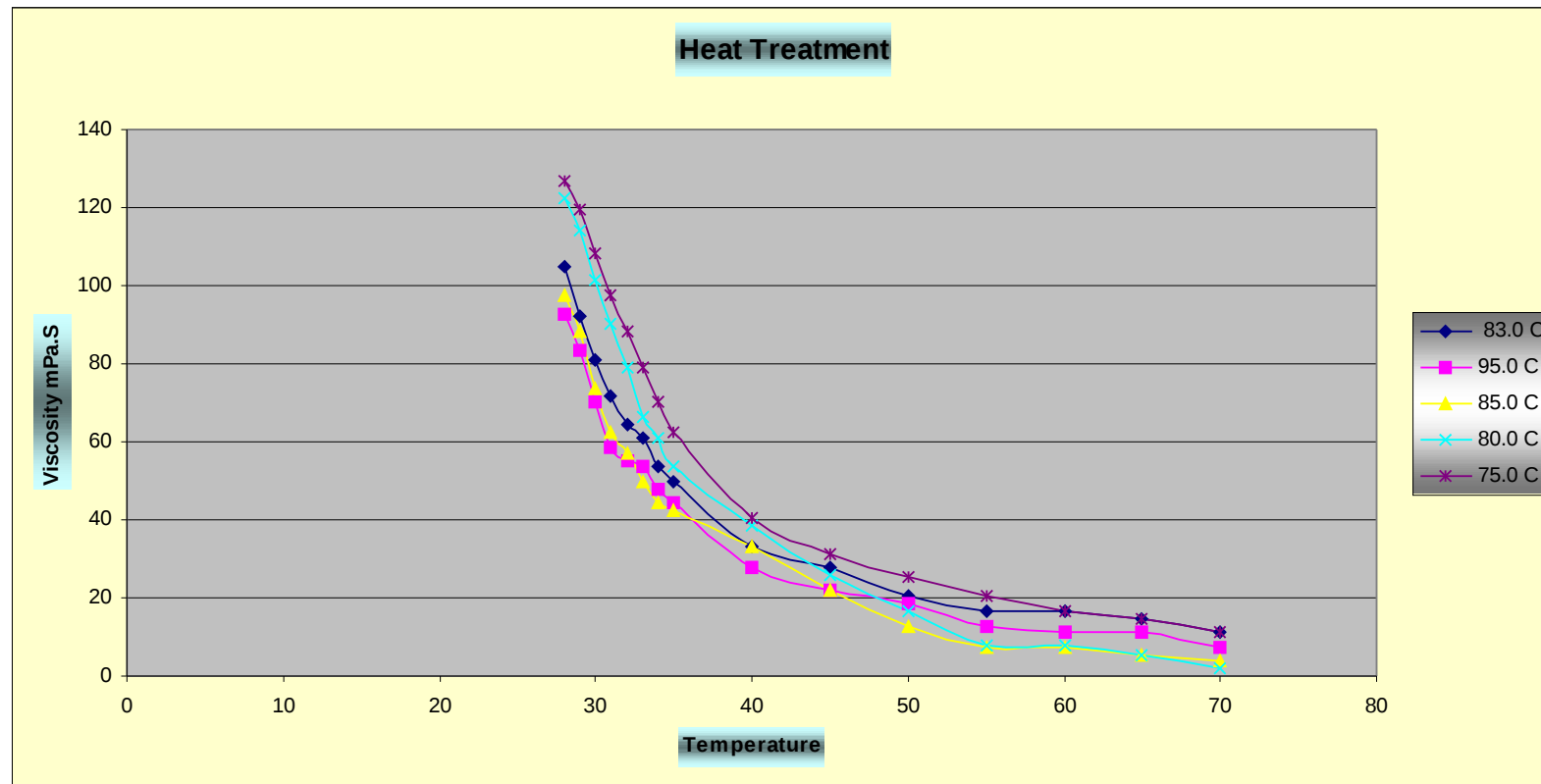


Fig 19: Effect of Heat Treatment of Nile Blend

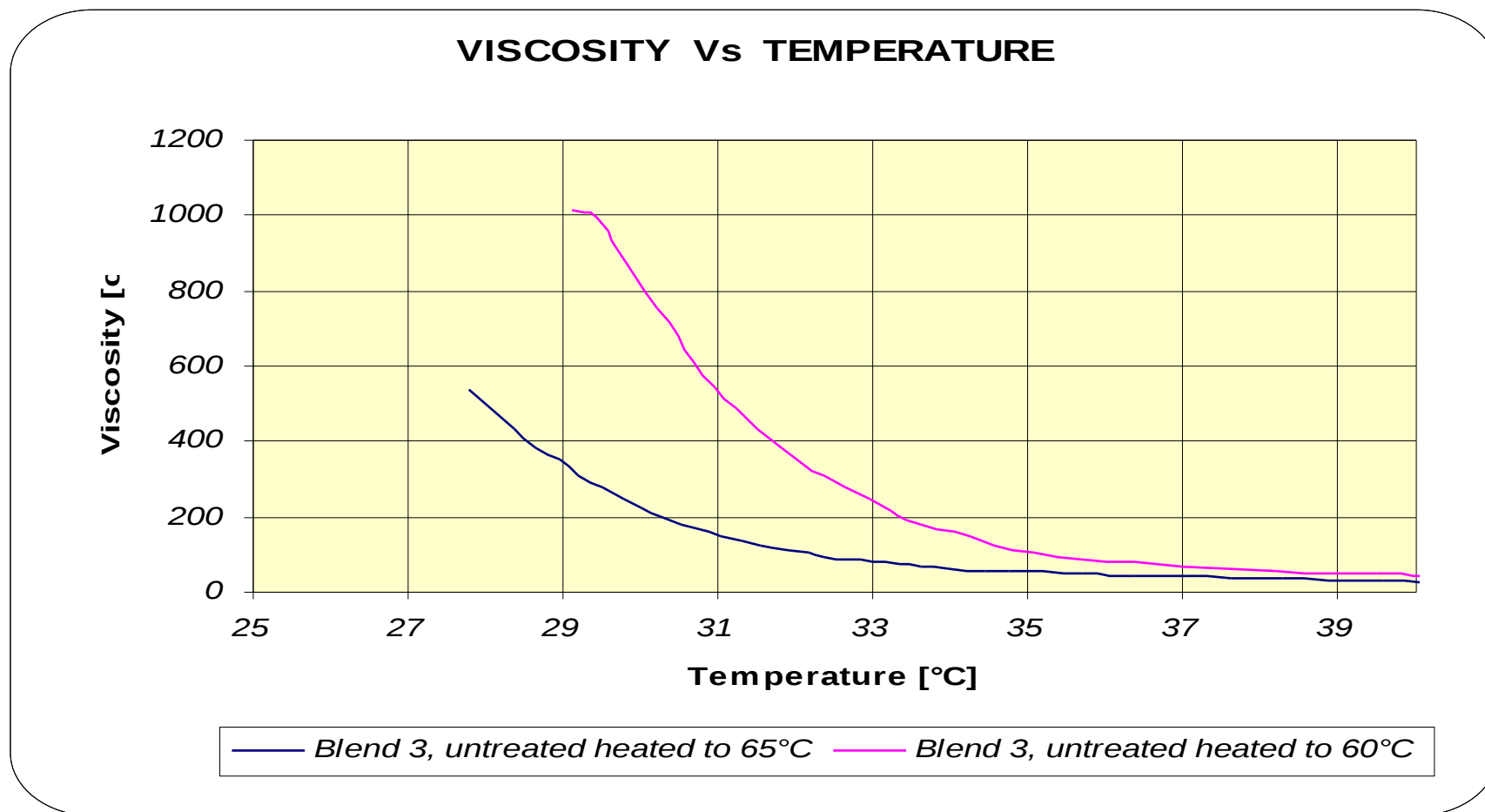


Fig 20: Untreated Nile Blend Viscosity in Different Temperature.

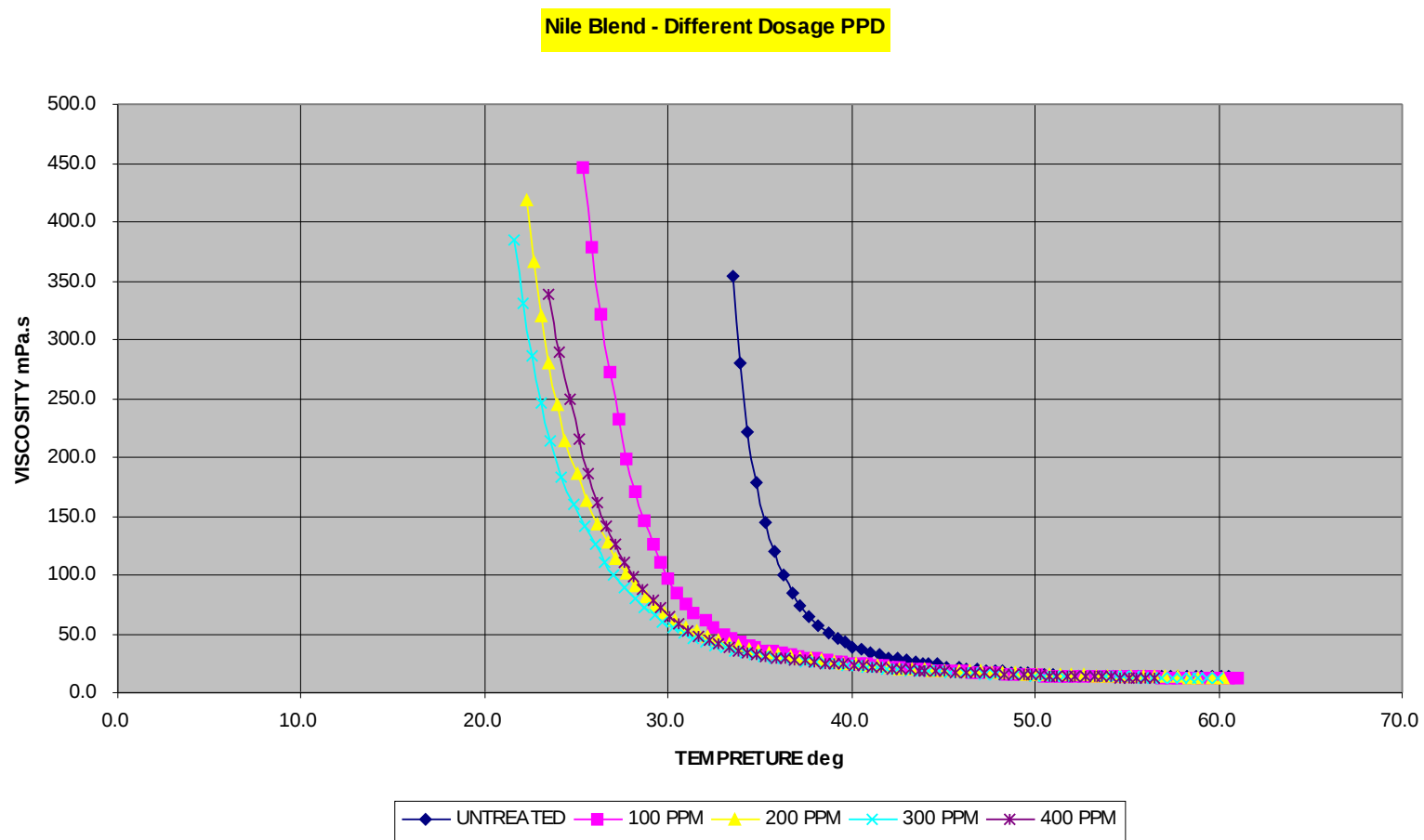


Fig 21: Nile Blend Viscosity in Different PPD Dosage.

Heglig Field Processing Facilities (FPF) Viscosity

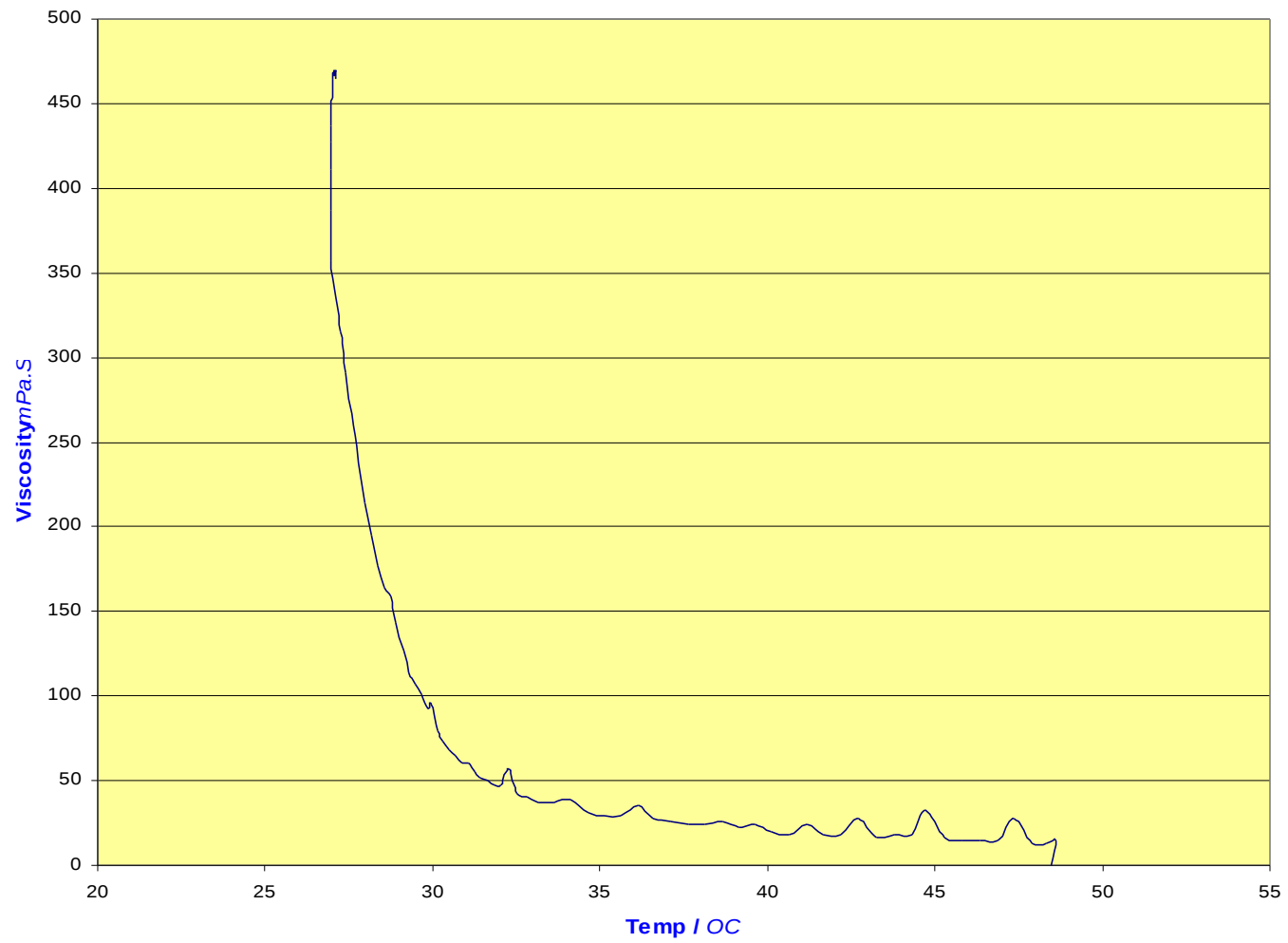
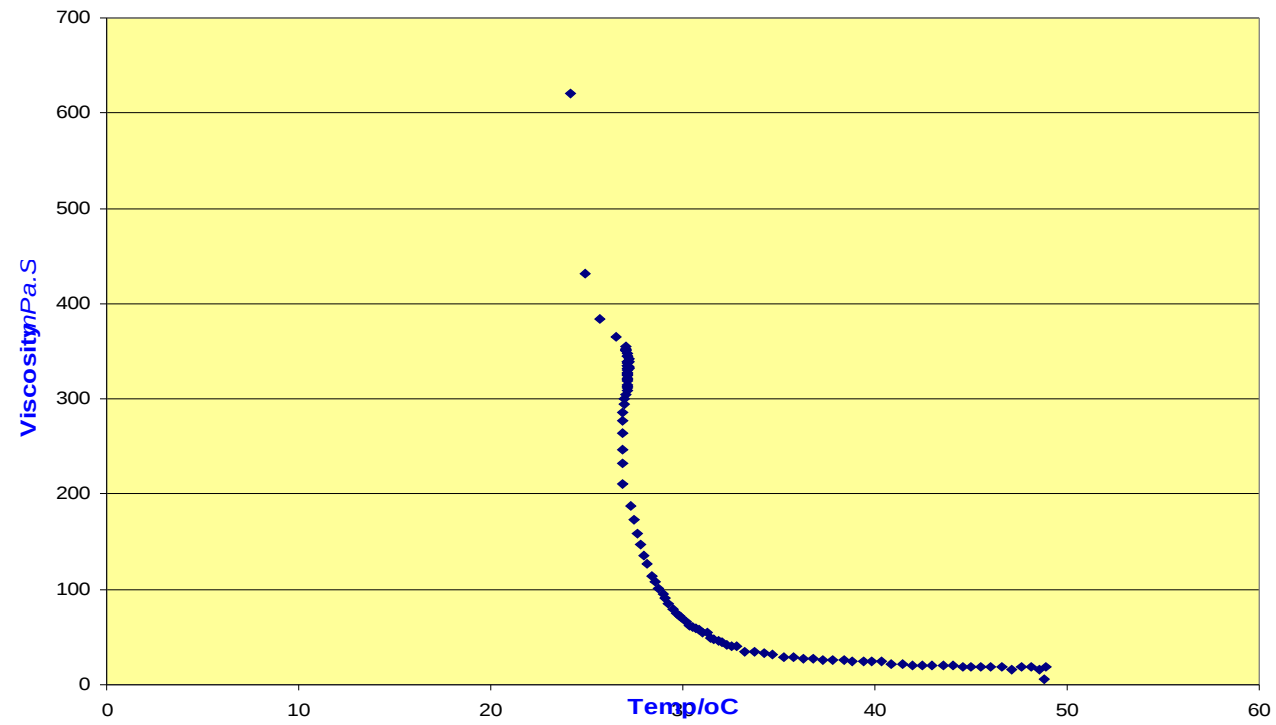


Fig 6: Variation of Viscosity with Temperature of Heglig Field Crude Oil

Unity Field Processing Facilities (FPF) Viscosity Profile



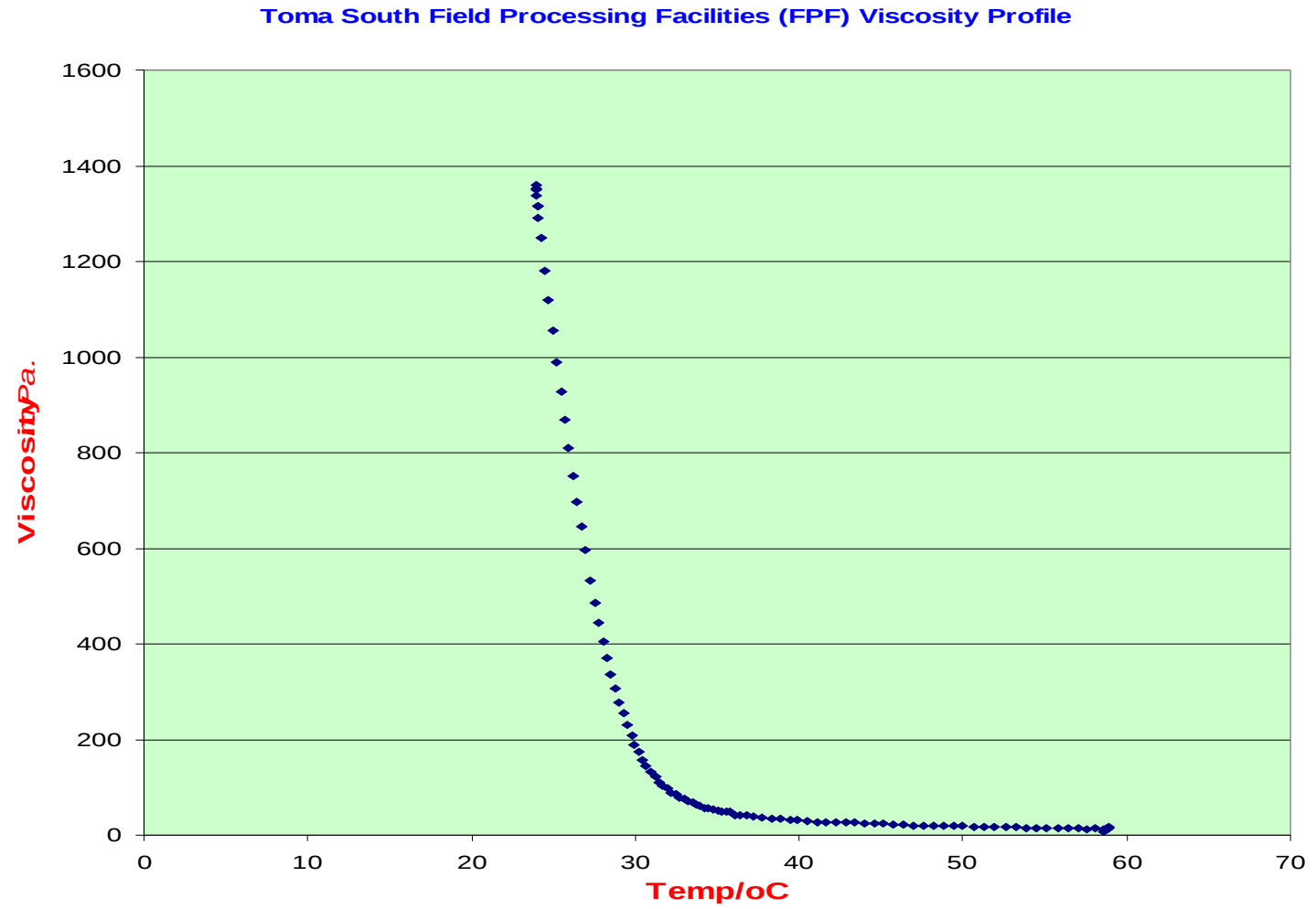
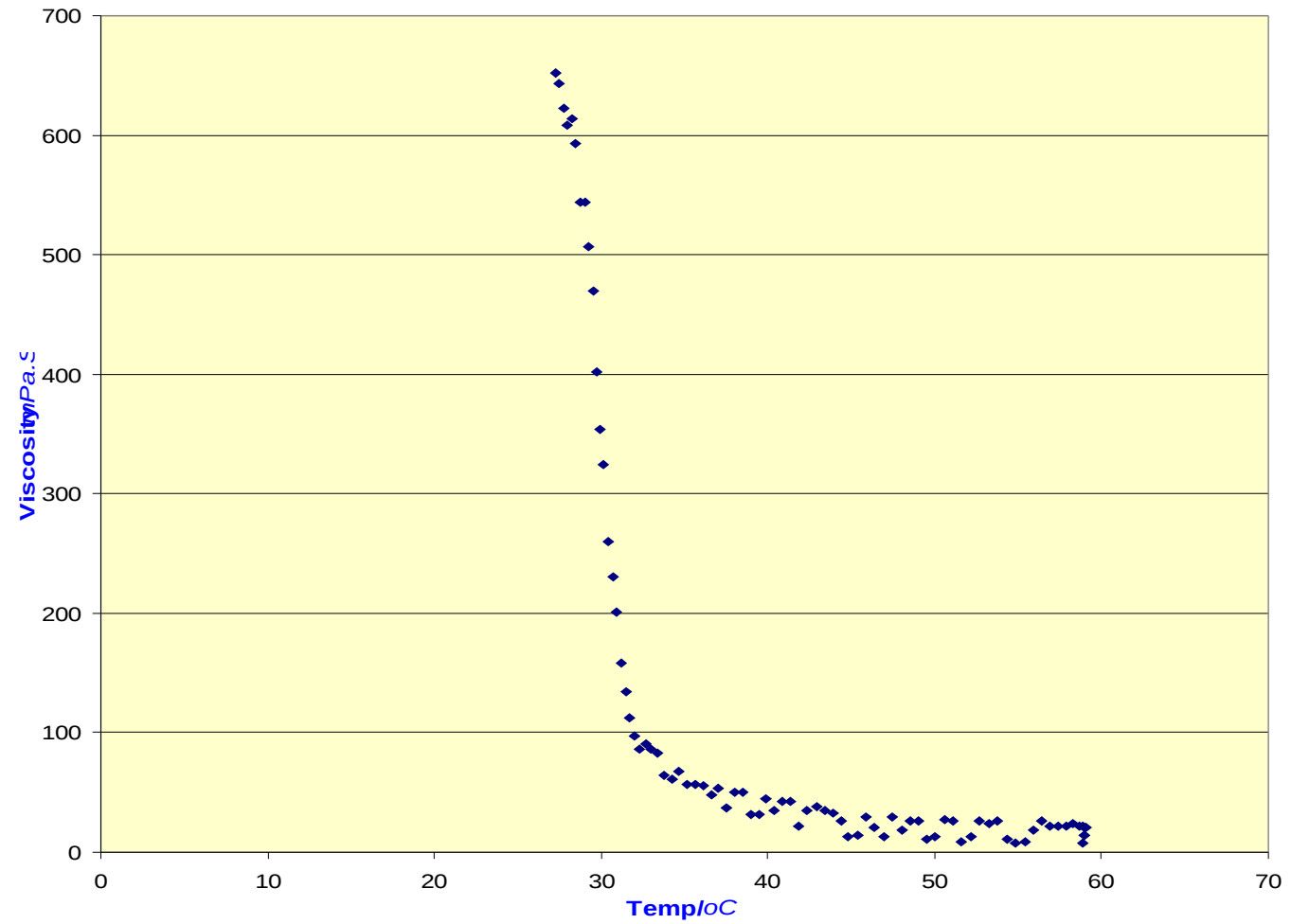


Fig 9: Variation of Viscosity with Temperature of Toma South Field Crude Oil.

Eltoor Field Processing Facilities (FPF) Viscosity Profile



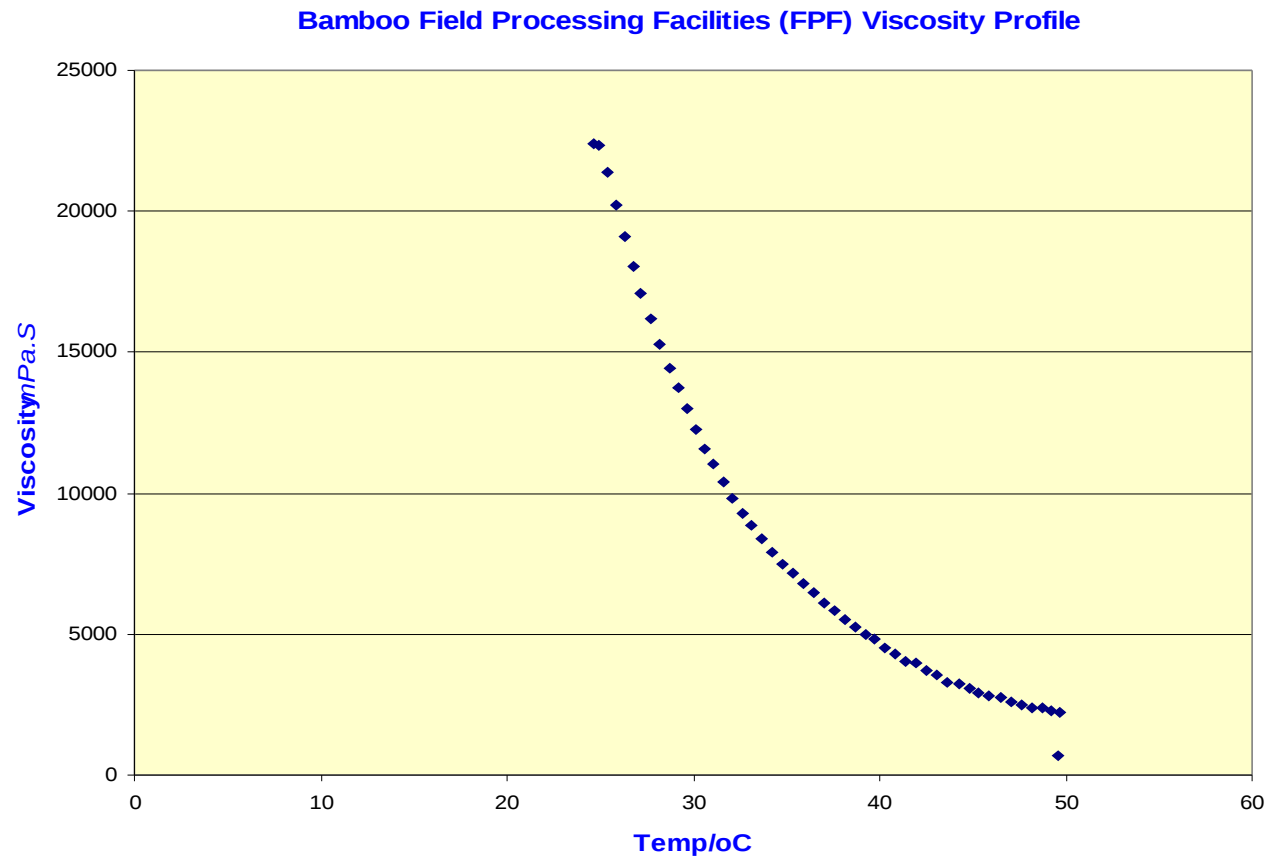


Fig 10: Variation of Viscosity with Temperature of Eltoor Field Crude Oil

Fig 11: Variation of Viscosity with Temperature of Bamboo Field Crude Oil.

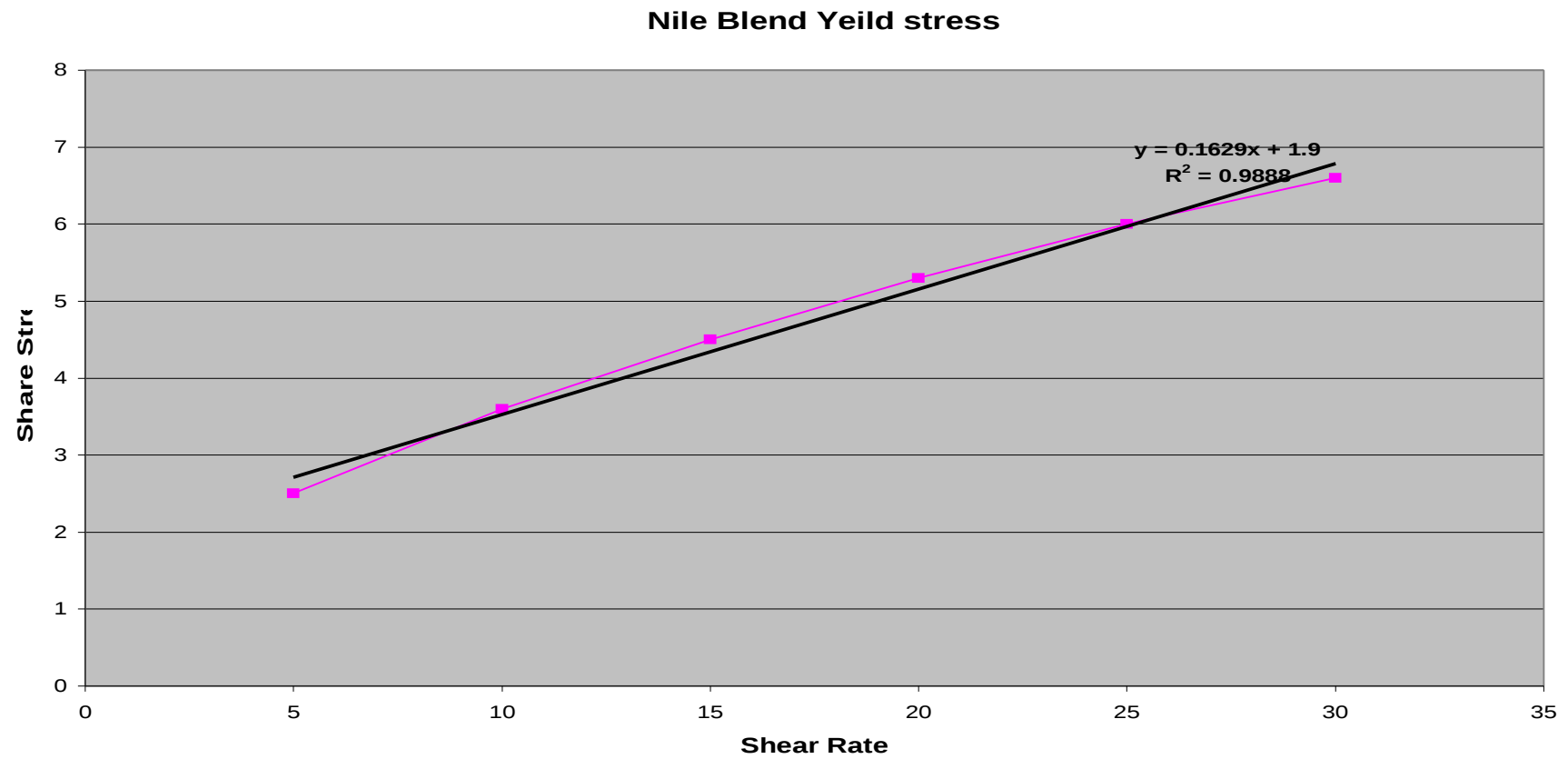


Fig 22: Yield Stress of Nile Blend