That which is claimed is:

1. A hydrocarbon mixture in which:
    a. the percentage of molecules with even carbon number is ≥ 80% according to FIMS;
    b. the BP/BI ≥ -0.6037 (Internal alkyl branching per molecule) + 2.0;
    c. on average there are 0.3 to 1.5 5+ methyl per molecule; and
    d. wherein the mixture further has a Noack volatility and Cold Crank Simulated viscosity at -35 °C relationship where Noack volatility is between 2750 (CCS at -35 °C)$^{(-0.8)}$ ± 2.

2. The mixture of claim 1, wherein the mixture further has a Noack volatility and Cold Crank Simulated viscosity at -35 °C relationship where Noack volatility is between 2750 (CCS at -35 °C)$^{(-0.8)}$ + 0.5 and 2740 (CCS at -35 °C)$^{(-0.8)}$-2.

3. The hydrocarbon mixture of claim 1, further comprising the following characteristics:
    e. KV100 in the range of 3.0 – 10.0 cSt; and
    f. Pour point in the range of -20 to -55 °C.

4. The hydrocarbon mixture of claim 3, wherein the carbon numbers of the hydrocarbon mixture is in the range of 28 to 40 and the hydrocarbon mixture further exhibits the following characteristics:
    a. KV100 in the range of 3.0 – 6.0 cSt;
    b. VI in the range of 11 ln(BP/BI) + 135 to 11 ln(BP/BI) + 145; and
    c. Pour point in the range of 33 ln(BP/BI) – 45 to 33 ln(BP/BI) – 35.

5. The hydrocarbon mixture of claim 4, wherein the boiling point range is no more than 125 ºC (TBP at 95% - TBP at 5%) as measured by ASTM D2887.

6. The hydrocarbon mixture of claim 4, wherein the boiling point range is no more than 50 °C (TBP at 95% - TBP at 5%) as measured by ASTM D2887.

7. The hydrocarbon mixture of claim 4, wherein its Branching proximity is in the range of 14 – 30 and Branching index is in the range of 15 – 25.

8. The hydrocarbon mixture of claim 4, wherein its KV100 is in the range of 3.2 to 5.5 cSt.

9. The hydrocarbon mixture of claim 4, wherein its VI is in the range of 135 to 145.

10. The hydrocarbon mixture of claim 4, wherein its pour point is in the range of -25 to -55 °C.

11. The hydrocarbon mixture of claim 4, wherein its Noack volatility is less than 16 wt%.

12. The hydrocarbon mixture of claim 3, wherein its CCS viscosity at -35 ºC is less than 2,000 cP.

13. The mixture according to claim 3, wherein said hydrocarbon mixture has carbon numbers ≥42 and the following characteristics:

a. KV100 in the range of 6.0 – 10.0 cSt;
b. VI in the range of 11 ln(BP/BI) + 145 to 11 ln(BP/BI) + 160; and a
c. Pour point in the range of 33 ln(BP/BI) – 40 to 33 ln(BP/BI) – 25.

14. The hydrocarbon mixture of claim 13, wherein its BP is in the range of 16 – 30 and BI is in the range of 15 – 25.

15. The hydrocarbon mixture of claim 13, wherein its KV100 is in the range of 8.0 – 10.0 cSt.

16. The hydrocarbon mixture of claim 13, wherein its VI is in the range of 140 – 170.

17. The hydrocarbon mixture of claim 13, wherein its pour point is in the range of -15 to -50 °C.

18. A lubricant composition comprising the hydrocarbon mixture of claim 1 as the base stock component at 1 – 99 wt%, and one or more additives selected from

antioxidants, viscosity modifiers, pour point depressants, foam inhibitors, detergents, dispersants, dyes, markers, rust inhibitors or other corrosion inhibitors, emulsifiers, de-emulsifiers, flame retardants, antiwear agents, friction modifiers, thermal stability improvers, or multifunctional additives.

19. The lubricant composition of claim 18, formulated for use in two cycle engines; for use as a transmission fluid; for use as a hydraulic fluid; for use in compressors; for use in turbines; for use in an automotive engine oil; for use as a marine grade lubricant; for use as a grease; for use as an industrial oil; for use as a dielectric heat transfer fluid; or for use as a process oil.