CLAIMS

1. A marine fuel composition comprising:
greater than 50 to 90 wt % of a residual hydrocarbon component; and
10 and up to 50 wt % selected from a group consisting of a non-hydroprocessed hydrocarbon component, a hydroprocessed hydrocarbon component, and any combination thereof.

2. The marine fuel composition of claim 1 wherein the marine fuel composition has a sulphur content in a range of 400 to 1000 wppm.

3. The marine fuel composition of claim 1 which exhibits at least one of the following:
a hydrogen sulfide content of at most 2.0 mg/kg; an acid number of at most 2.5 mg KOH per gram; a sediment content of at most 0.1 wt %; a water content of at most 0.5 vol %; and an ash content of at most 0.15 wt %.

4. The marine fuel composition of claim 1 which has at least one of the following: a density at 15 degrees C. in a range of 0.870 to 1.010 g/cm^3, a kinematic viscosity at 50 degrees C. in a range of 1 to 700 cSt, a pour point of -30 to 35 degrees C., and a flash point of at least 60 degrees C.

5. The marine fuel composition of claim 1 wherein the residual hydrocarbon component has a sulfur content of at most 0.4 wt %.

6. The marine fuel composition of claim 1 wherein the residual hydrocarbon component has a sulfur content of at most 0.2 wt %.

7. The marine fuel composition of claim 1 wherein the residual hydrocarbon component is selected from a group consisting of long residues (ATB), short residues (VTB), and a combination thereof.

8. The marine fuel composition of claim 1 wherein the residual hydrocarbon component comprises long residues (ATB) which exhibit at least one of the following: a pour point in a range of -19.0 to 64 degrees C., a flash point in a range of 80 to 213 degrees C.; an acid number of up to 8.00 mgKOH/g; a density at ~15 degrees C. of at most about 1.0 g/cc; and a kinematic viscosity at ~50 degrees C. in a range of 1.75 to 15000 cSt.

9. The marine fuel composition of claim 1 wherein the residual hydrocarbon component comprises a first long residue (ATB) which exhibits at least one of the following a pour point of about 45 degrees C., a flash point of about 124 degrees C.; a density at ~15 degrees C. of about 0.91 g/cm^3, and a kinematic viscosity at ~50 degrees C. of about 165 cSt.

10. The marine fuel composition of claim 9 comprising at least 60% of the first long residue.

11. The marine fuel composition of claim 9 wherein the residual hydrocarbon component comprises a second long residue (ATB) which exhibits at least one of the following a pour point of about -2 degrees C., a flash point of about 207 degrees C.; a density at ~15 degrees C. of about 0.94 g/cm^3, and a kinematic viscosity at ~50 degrees C. of about 880 cSt.

12. The marine fuel composition of claim 11 comprising at least 20 wt % of the first long residue and at least 30 wt % of the second long residue.

13. The marine fuel composition of claim 11 comprising at least 32 wt % of the second long residue.

14. The marine fuel composition of claim 11 comprising at least 32 wt % of the first long residue.

15. The marine fuel composition of claim 1 comprising at least 60 wt % of the residual hydrocarbon component.

16. The marine fuel composition of claim 1 comprising at least 70 wt % of the residual hydrocarbon component.

17. The marine fuel composition of claim 1 comprising at least 80 wt % of the residual hydrocarbon component.

18. The marine fuel composition of claim 1 comprising at least 90 wt % of the residual hydrocarbon component.

19. The marine fuel composition of claim 1 wherein the residual hydrocarbon component comprises short residues (VTB) which exhibit at least one of the following: a density at 15 degrees C. in a range of 0.8 to 1.1 g/cc; a pour point in a range of -15.0 to 95 degrees C., a flash point in a range of 220 to 335 degrees C.; an acid number of up to 8.00 mgKOH/g; and a kinematic viscosity at 50 degrees C. in a range of 3.75 to 15000 cSt.

20. The marine fuel composition of claim 1 wherein the non-hydroprocessed hydrocarbon component is selected from a group consisting of light cycle oil (LCO), heavy cycle oil (HCO), fluid catalytic cracking (FCC) cycle oil, FCC slurry oil, pyrolysis gas oil, cracked light gas oil (CLGO), cracked heavy gas oil (CHGO), pyrolysis light gas oil (PLGO), pyrolysis heavy gas oil (PHGO), thermally cracked residue, thermally cracked heavy distillate, coker heavy distillates, and any combination thereof.

21. The marine fuel composition of claim 1 wherein the non-hydroprocessed hydrocarbon component is selected from a group consisting of vacuum gas oil (VGO), coker diesel, coker gas oil, coker VGO, thermally cracked VGO, thermally cracked diesel, thermally cracked gas oil, Group I slack waxes, lube oil aromatic extracts, deasphalted oil (DAO), and any combination thereof.

22. The marine fuel composition of claim 1 wherein the non-hydroprocessed hydrocarbon component is selected from a group consisting of coker kerosene, thermally cracked kerosene, gas-to-liquids (GTL) wax, GTL hydrocarbons, straight-run diesel, straight-run kerosene, straight run gas oil (SRGO), and any combination thereof.

23. The marine fuel composition of claim 1 wherein the hydroprocessed hydrocarbon component is selected from a group consisting of low-sulfur diesel (LSD) having a sulphur content of less than 500 wppm, ultra low-sulfur diesel (ULSD) having a sulphur content of less than 15 wppm; hydrotreated LCO; hydrotreated HCO; hydrotreated pyrolysis gas oil, hydrotreated thermally cracked heavy distillate, hydrotreated thermally cracked gas oil, hydrocracker diesel, and any combination thereof.

24. The marine fuel composition of claim 1 wherein the hydroprocessed hydrocarbon component is selected from a group consisting of hydrotreated coker diesel, hydrotreated coker gas oil, hydrotreated thermally cracked diesel, hydrotreated VGO, hydrotreated coker VGO, hydrotreated residues, hydrocracker bottoms, hydrotreated thermally cracked VGO, and hydrotreated DAO, and any combination thereof.

25. The marine fuel composition of claim 1 wherein the hydroprocessed hydrocarbon component is selected from a group consisting of ultra low sulfur kerosene (ULSK), hydrotreated jet fuel, hydrotreated kerosene, hydrotreated coker kerosene, hydrocracker kerosene, hydrotreated thermally cracked kerosene, and any combination thereof.

26. The marine fuel composition of claim 1 comprising at most 80 wt % of the residual hydrocarbon component.

27. The marine fuel composition of claim 1 comprising at most 75 wt % of the residual hydrocarbon component.

28. The marine fuel composition of claim 1 comprising at most 70 wt % of the residual hydrocarbon component.