CLAIMS:

1. A method for producing a naphtha fuel, a diesel fuel, and a lubricant basestock, comprising:

contacting a hydrotreated feedstock with a hydrocracking catalyst under first effective hydrocracking conditions to produce a hydrocracked effluent, the hydrotreated feedstock being cascaded to the hydrocracking catalyst without intermediate separation;

cascading the entire hydrocracked effluent, without separation, to a catalytic dewaxing stage;

dewaxing the entire hydrocracked effluent under first effective catalytic dewaxing conditions in the presence of a dewaxing catalyst, the dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite and at least one Group VI metal, Group VIII metal or combination thereof;

fractionating the dewaxed effluent to produce at least a naphtha product fraction, a first diesel product fraction, and a bottoms fraction;

hydrocracking the bottoms fraction under second effective hydrocracking conditions;

dewaxing the bottoms fraction under second effective catalytic dewaxing conditions; and

fractionating the hydrocracked, dewaxed bottoms fraction to form at least a second diesel product fraction and a lubricant base oil product fraction.

2. The method of claim 1, wherein the second effective catalytic dewaxing conditions include a temperature that is at least about 20°C lower than a temperature of the first effective catalytic dewaxing conditions.

~~3. The method of claim 1, wherein the bottoms fraction is dewaxed~~ prior to said hydrocracking of the bottoms fraction.

4. The method of claim 1, wherein the bottoms fraction is dewaxed prior to said hydrocracking of the bottoms fraction and after said hydrocracking of the bottoms fraction.

5. The method of claim 4, wherein the bottoms fraction is dewaxed after said hydrocracking of the bottoms fraction under third effective catalytic dewaxing conditions.

6. The method of claim 1, wherein the hydrocracked, dewaxed bottoms fraction is hydrofinished under effective hydrofinishing conditions.

7. The method of claim 1, wherein a hydrogen gas introduced as part of first effective hydrocracking conditions or as part of first effective dewaxing conditions is chosen from a hydrotreated gas effluent, a clean hydrogen gas, a recycle gas and combinations thereof.

8. The method of claim 1, wherein the dewaxing catalyst comprises a molecular sieve having a SiO_2:Al_2O_3 ratio of 200:1 to 30:1 and comprises from 0.1 wt% to 3.33 wt% framework Al_2O_3 content, the dewaxing catalyst including from 0.1 to 5 wt% platinum.

9. The method of claim 8, wherein the molecular sieve is EU-1, ZSM-35, ZSM-11, ZSM-57, NU-87, ZSM-22, EU-2, EU-11, ZBM-30, ZSM-48, ZSM-23, or a combination thereof.

10. The method of claim 9, wherein the molecular sieve is ZSM-48, ~~ZSM-23, or a combination thereof.~~

~~11. The method of claim 1, wherein the dewaxing catalyst comprises at~~ least one low surface area metal oxide, refractory binder, the binder being silica, alumina, titania, zirconia, or silica-alumina.

12. The method of claim 11, wherein the metal oxide, refractory binder further comprises a second metal oxide, refractory binder different from the first metal oxide, refractory binder.

13. The method of claim 11, wherein the dewaxing catalyst comprises a micropore surface area to total surface area ratio of greater than or equal to 25%, wherein the total surface area equals the surface area of the external zeolite plus the surface area of the binder, the surface area of the binder being 100 m^2/g or less.

14. The method of claim 1, wherein the hydrocracking catalyst is a zeolite Y based catalyst.

15. The method of claim 1, wherein fractionating to form a lubricant base oil product fraction comprises forming a plurality of lubricant base oil products, including a lubricant base oil product having a viscosity of at least 2cSt, and a lubricant base oil product having a viscosity of at least 4 cSt suitable for use in engine oils made according to SAE J300 in 0W-, 5W-, or 10W- grades.

16. The method of claim 1, wherein at least a portion of the lubricant base oil product fraction is recycled as an input to said hydrocracking of the bottoms fraction.

17. A method for producing a diesel fuel and a lubricant basestock, comprising:

contacting a hydrotreated feedstock with a dewaxing catalyst under ~~first effective dewaxing conditions to produce a dewaxed effluent, the dewaxing~~

~~catalyst including at least one non-dealuminated, unidimensional, 10-member ring~~ pore zeolite, and at least one Group VI metal, Group VIII metal, or combination thereof, the hydrotreated feedstock being cascaded to the dewaxing catalyst without intermediate separation;

fractionating the dewaxed effluent to produce at least a first diesel product fraction and a bottoms fraction;

hydrocracking the bottoms fraction under second effective hydrocracking conditions;

dewaxing the bottoms fraction under second effective catalytic dewaxing conditions; and

fractionating the hydrocracked, dewaxed bottoms fraction to form at least a second diesel product fraction and a lubricant base oil product fraction.

18. The method of claim 17, wherein dewaxing the bottoms fraction occurs prior to said hydrocracking of the bottoms fraction.

19. The method of claim 18, wherein the bottoms fraction is dewaxed prior to said hydrocracking of the bottoms fraction and dewaxed after said hydrocracking of the bottoms fraction.

20. The method of claim 17, further comprising contacting the dewaxed feedstock with a hydrocracking catalyst under first effective hydrocracking conditions prior to fractionation of the dewaxed effluent.

21. A method for producing a diesel fuel and a lubricant basestock, comprising:

contacting a feedstock with a hydrotreating catalyst under first ~~effective hydrotreating conditions to produce a hydrotreated effluent;~~

fractionating the hydrotreated effluent to produce at least a first diesel product fraction and a bottoms fraction;

dewaxing the bottoms fraction under effective catalytic dewaxing conditions, the dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI metal, Group VIII metal or combination thereof;

hydrocracking the bottoms fraction under effective hydrocracking conditions; and

fractionating the hydrocracked, dewaxed bottoms fraction to form at least a second diesel product fraction and a lubricant base oil product fraction.

22. The method of claim 21, wherein the effective hydrocracking conditions include a temperature of 200°C to 450°C, a hydrogen partial pressure of 250 psig to 5000 psig (1.8 MPa to 34.6 MPa), a liquid hourly space velocity of 0.2 h^{-1} to 10 h^{-1}, and a hydrogen treat gas rate of 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

23. The method of claim 21, wherein the effective dewaxing conditions include a temperature of from 200°C to 450°C, a hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

24. The method of claim 21, wherein the total conversion of the hydrocracked, dewaxed bottoms relative to the feedstock is 70% to 90%.

25. A method for producing a diesel fuel and a lubricant basestock, comprising:

contacting a feedstock with a hydrotreating catalyst under effective hydrotreating conditions to produce a hydrotreated effluent;

fractionating the hydrotreated effluent to produce at least a first diesel product fraction and a bottoms fraction;

hydrocracking the bottoms fraction under effective hydrocracking conditions;

dewaxing the bottoms fraction under effective catalytic dewaxing conditions, the dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI metal, Group VIII metal, or combination thereof;

and fractionating the hydrocracked, dewaxed bottoms fraction to form at least a second diesel product fraction and a lubricant base oil product fraction.

26. The method of claim 25, wherein at least a portion of the first diesel product fraction is fed to the dewaxing step.

27. The method of claim 25, further including combining the first diesel product fraction and the second diesel product fraction.

28. The method of claim 25, wherein the effective hydrotreating conditions include a temperature of from 200°C to 450°C, hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

29. The method of claim 25, wherein the effective hydrocracking conditions include a temperature of 200°C to 450°C, a hydrogen partial pressure of 250 psig to 5000 psig (1.8 MPa to 34.6 MPa), a liquid hourly space velocity of 0.2 h^{-1} to 10 h^{-1}, and a hydrogen treat gas rate of 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

30. The method of claim 25, wherein the effective dewaxing conditions include a temperature of from 200°C to 450°C, a hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

31. The method of claim 25, wherein a hydrogen gas introduced as part of effective hydrotreating conditions, effective dewaxing conditions, or effective hydrocracking conditions is chosen from a hydrotreated gas effluent, a clean hydrogen gas, a recycle gas and combinations thereof.

32. The method of claim 25, wherein the dewaxing catalyst comprises a molecular sieve having a SiO_2:Al_2O_3 ratio of 200:1 to 30:1 and comprises from 0.1 wt% to 3.33 wt% framework Al_2O_3 content, the dewaxing catalyst including from 0.1 to 5 wt% platinum.

33. The method of claim 32, wherein the molecular sieve is EU-1, ZSM-35, ZSM-11, ZSM-57, NU-87, ZSM-22, EU-2, EU-11, ZBM-30, ZSM-48, ZSM-23, or a combination thereof.

34. The method of claim 33, wherein the molecular sieve is ZSM-48, ZSM-23, or a combination thereof.

35. The method of claim 25, wherein the dewaxing catalyst comprises at least one low surface area metal oxide, refractory binder, the binder being silica, alumina, titania, zirconia, or silica-alumina.

36. The method of claim 35, wherein the metal oxide, refractory binder further comprises a second metal oxide, refractory binder different from the first metal oxide, refractory binder.

37. The method of claim 35, wherein the dewaxing catalyst comprises a micropore surface area to total surface area ratio of greater than or equal to 25%, wherein the total surface area equals the surface area of the external zeolite plus the surface area of the binder, the surface area of the binder being 100 m^2/g or less.

38. The method of claim 25, wherein the hydrocracking catalyst is a zeolite Y based catalyst.

39. The method of claim 25 further including hydrofinishing the hydrocracked, dewaxed bottoms fraction under effective hydrofinishing conditions prior to the second fractionating step.

40. The method of claim 25, wherein fractionating to form a lubricant base oil product fraction comprises forming a plurality of lubricant base oil products, including a lubricant base oil product having a viscosity of at least 2cSt, and a lubricant base oil product having a viscosity of at least 4 cSt suitable for use in engine oils made according to SAE J300 in 0W-, 5W-, or 10W- grades.

41. A method for producing a diesel fuel and a lubricant basestock, comprising:

contacting a feedstock with a hydrotreating catalyst under effective hydrotreating conditions to produce a hydrotreated effluent;

fractionating the hydrotreated effluent to produce at least a first diesel product fraction and a first bottoms fraction;

dewaxing the bottoms fraction under effective catalytic dewaxing conditions, the dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI, Group VIII metal or combination thereof;

fractionating the dewaxed bottoms fraction to form at least a second diesel product fraction and a second bottoms fraction,

hydrocracking the second bottoms fraction under effective hydrocracking conditions to form a third bottoms fraction, and

fractionating the third bottoms fraction to form at least a naphtha product fraction, a diesel product fraction and a lubricant base oil product fraction.

42. The method of claim 41, wherein at least a portion of the third bottoms fraction is recycled back to the dewaxing step.

43. The method of claim 41, wherein at least a portion of the third bottoms fraction is recycled back to the second fractionating step.

44. The method of claim 41, wherein the effective hydrotreating conditions include a temperature of from 200°C to 450°C, hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

45. The method of claim 41, wherein the effective hydrocracking conditions include a temperature of 200°C to 450°C, a hydrogen partial pressure of 250 psig to 5000 psig (1.8 MPa to 34.6 MPa), a liquid hourly space velocity of 0.2 h^{-1} to 10 h^{-1}, and a hydrogen treat gas rate of 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

46. The method of claim 41, wherein the effective dewaxing conditions include a temperature of from 200°C to 450°C, a hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

47. The method of claim 41, wherein a hydrogen gas introduced as part of effective hydrotreating conditions, effective dewaxing conditions, or effective hydrocracking conditions is chosen from a hydrotreated gas effluent, a clean hydrogen gas, a recycle gas and combinations thereof.

48. The method of claim 41, wherein the dewaxing catalyst comprises a molecular sieve having a SiO_2:Al_2O_3 ratio of 200:1 to 30:1 and comprises from 0.1 wt% to 3.33 wt% framework Al_2O_3 content, the dewaxing catalyst including from 0.1 to 5 wt% platinum.

49. The method of claim 48, wherein the molecular sieve is EU-1, ZSM-35, ZSM-11, ZSM-57, NU-87, ZSM-22, EU-2, EU-11, ZBM-30, ZSM-48, ZSM-23, or a combination thereof.

50. The method of claim 49, wherein the molecular sieve is ZSM-48, ZSM-23, or a combination thereof.

51. The method of claim 41, wherein the dewaxing catalyst comprises at least one low surface area metal oxide, refractory binder, the binder being silica, alumina, titania, zirconia, or silica-alumina.

52. The method of claim 51, wherein the metal oxide, refractory binder further comprises a second metal oxide, refractory binder different from the first metal oxide, refractory binder.

53. The method of claim 51, wherein the dewaxing catalyst comprises a micropore surface area to total surface area ratio of greater than or equal to 25%, wherein the total surface area equals the surface area of the external zeolite plus the surface area of the binder, the surface area of the binder being 100 m^2/g or less.

54. The method of claim 41, wherein the hydrocracking catalyst is a zeolite Y based catalyst.

55. The method of claim 41 further including hydrofinishing the third bottoms fraction under effective hydrofinishing conditions prior to the third fractionating step.

56. The method of claim 41, wherein fractionating to form a lubricant base oil product fraction comprises forming a plurality of lubricant base oil products, including a lubricant base oil product having a viscosity of at least 2cSt, and a lubricant base oil product having a viscosity of at least 4 cSt suitable for use in engine oils made according to SAE J300 in 0W-, 5W-, or 10W- grades.

57. A method for producing a diesel fuel and a lubricant basestock, comprising:

contacting a feedstock with a hydrotreating catalyst under effective hydrotreating conditions to produce a hydrotreated effluent;

fractionating the hydrotreated effluent to produce at least a first diesel product fraction and a first bottoms fraction;

hydrocracking the first bottoms fraction under effective hydrocracking conditions to form a second bottoms fraction;

fractionating the second bottoms fraction to form at least a second diesel product fraction and a third bottoms fraction,

dewaxing at least a portion of the third bottoms fraction under effective catalytic dewaxing conditions, the dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI metal, Group VIII metal or combination thereof; and

fractionating the dewaxed third bottoms fraction and the non-dewaxed third bottoms fraction to form at least a naphtha product fraction, a third diesel product fraction and a lubricant base oil product fraction.

58. The method of claim 57 further including dewaxing a portion of the first diesel product fraction, the second diesel product fraction or a combination thereof under effective catalytic dewaxing conditions.

59. The method of claim 57, further including combining the first diesel product fraction, the second diesel product fraction and the third diesel product fraction.

60. The method of claim 57, wherein the effective hydrotreating conditions include a temperature of from 200°C to 450°C, hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

61. The method of claim 57, wherein the effective hydrocracking conditions include a temperature of 200°C to 450°C, a hydrogen partial pressure of 250 psig to 5000 psig (1.8 MPa to 34.6 MPa), a liquid hourly space velocity of 0.2 h^{-1} to 10 h^{-1}, and a hydrogen treat gas rate of 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

62. The method of claim 57, wherein the effective dewaxing conditions include a temperature of from 200°C to 450°C, a hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

63. The method of claim 57, wherein a hydrogen gas introduced as part of effective hydrotreating conditions, effective dewaxing conditions, or effective hydrocracking conditions is chosen from a hydrotreated gas effluent, a clean hydrogen gas, a recycle gas and combinations thereof.

64. The method of claim 57, wherein the dewaxing catalyst comprises a molecular sieve having a SiO_2:Al_2O_3 ratio of 200:1 to 30:1 and comprises from 0.1 wt% to 3.33 wt% framework Al_2O_3 content, the dewaxing catalyst including from 0.1 to 5 wt% platinum.

65. The method of claim 64, wherein the molecular sieve is EU-1, ZSM-35, ZSM-11, ZSM-57, NU-87, ZSM-22, EU-2, EU-11, ZBM-30, ZSM-48, ZSM-23, or a combination thereof.

66. The method of claim 65, wherein the molecular sieve is ZSM-48, ZSM-23, or a combination thereof.

67. The method of claim 57, wherein the dewaxing catalyst comprises at least one low surface area metal oxide, refractory binder, the binder being silica, alumina, titania, zirconia, or silica-alumina.

68. The method of claim 67, wherein the metal oxide, refractory binder further comprises a second metal oxide, refractory binder different from the first metal oxide, refractory binder.

69. The method of claim 67 wherein the dewaxing catalyst comprises a micropore surface area to total surface area ratio of greater than or equal to 25%, wherein the total surface area equals the surface area of the external zeolite plus the surface area of the binder, the surface area of the binder being 100 m^2/g or less.

70. The method of claim 57, wherein the hydrocracking catalyst is a zeolite Y based catalyst.

71. The method of claim 57 further including hydrofinishing the dewaxed third bottoms fraction under effective hydrofinishing conditions prior to the third fractionating step.

72. The method of claim 57, wherein fractionating to form a lubricant base oil product fraction comprises forming a plurality of lubricant base oil products, including a lubricant base oil product having a viscosity of at least 2cSt, and a lubricant base oil product having a viscosity of at least 4 cSt suitable for use in engine oils made according to SAE J300 in 0W-, 5W-, or 10W- grades.

73. A method for producing a naphtha fuel, a diesel fuel, and a lubricant basestock comprising:

contacting a hydrotreated feedstock without intermediate separation with a hydrocracking catalyst under first effective hydrocracking conditions to produce a hydrocracked effluent;

catalytically dewaxing without intermediate separation the entire hydrocracked effluent under first effective catalytic dewaxing conditions in the presence of a first dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI metal, Group VIII metal or combination thereof to form a dewaxed effluent, wherein the combined total sulfur in liquid and gaseous forms fed to the catalytic dewaxing step is greater than 1000 ppm by weight of sulfur on a hydrotreated feedstock basis;

fractionating the dewaxed effluent to produce at least a naphtha product fraction, a first diesel product fraction, and a bottoms fraction;

hydrocracking the bottoms fraction under second effective hydrocracking conditions;

catalytically dewaxing the bottoms fraction under second effective catalytic dewaxing conditions in the presence of a second dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI metal, Group VIII metal or combination thereof; and

fractionating the hydrocracked, dewaxed bottoms fraction to form at least a second diesel product fraction and a lubricant base oil product fraction.

74. The method of claim 73, wherein the first dewaxing catalyst, the second dewaxing catalyst, or both the first dewaxing catalyst and the second dewaxing catalyst include at least one low surface area metal oxide, refractory binder.

75. The method of claim 73, wherein the catalytically dewaxing of the bottoms fraction occurs prior to the second hydrocracking step, after the second hydrocracking step, or both prior to and after the second hydrocracking step.

CLAIMS

1. A method for producing a diesel fuel and a lubricant basestock, comprising:

contacting a feedstock with a hydrotreating catalyst under effective hydrotreating conditions to produce a hydrotreated effluent;

fractionating the hydrotreated effluent to produce at least a first diesel product fraction and a bottoms fraction;

hydrocracking the bottoms fraction under effective hydrocracking conditions;

dewaxing the bottoms fraction under effective catalytic dewaxing conditions, the dewaxing catalyst including at least one non-dealuminated, unidimensional, 10-member ring pore zeolite, and at least one Group VI metal, Group VIII metal, or combination thereof;

and fractionating the hydrocracked, dewaxed bottoms fraction to form at least a second diesel product fraction and a lubricant base oil product fraction.

2. The method of claim 1, wherein at least a portion of the first diesel product fraction is fed to the dewaxing step.

3. The method of claim 1, further including combining the first diesel product fraction and the second diesel product fraction.

4. The method of claim 1, wherein the effective hydrotreating conditions include a temperature of from 200°C to 450°C, hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

5. The method of claim 1, wherein the effective hydrocracking conditions include a temperature of 200°C to 450°C, a hydrogen partial pressure of 250 psig to 5000 psig (1.8 MPa to 34.6 MPa), a liquid hourly space velocity of 0.2 h^{-1} to 10 h^{-1},

and a hydrogen treat gas rate of 35.6 m^3/m^3 to 1781 m^3/m^3 (200 SCF/B to 10,000 SCF/B).

6. The method of claim 1, wherein the effective dewaxing conditions include a temperature of from 200°C to 450°C, a hydrogen partial pressure of from 1.8 MPa to 34.6 MPa (250 psi to 5000 psi), a liquid hourly space velocity of from 0.2 to 10 hr^{-1}, and a hydrogen circulation rate of from 35.6 to 1781 m^3/m^3 (200 to 10,000 scf/B).

7. The method of claim 1, wherein a hydrogen gas introduced as part of effective hydrotreating conditions, effective dewaxing conditions, or effective hydrocracking conditions is chosen from a hydrotreated gas effluent, a clean hydrogen gas, a recycle gas and combinations thereof.

8. The method of claim 1, wherein the dewaxing catalyst comprises a molecular sieve having a SiO_2:Al_2O_3 ratio of 200:1 to 30:1 and comprises from 0.1 wt% to 3.33 wt% framework Al_2O_3 content, the dewaxing catalyst including from 0.1 to 5 wt% platinum.

9. The method of claim 8, wherein the molecular sieve is EU-1, ZSM-35, ZSM-11, ZSM-57, NU-87, ZSM-22, EU-2, EU-11, ZBM-30, ZSM-48, ZSM-23, or a combination thereof.

10. The method of claim 9, wherein the molecular sieve is ZSM-48, ZSM-23, or a combination thereof.

11. The method of claim 1, wherein the dewaxing catalyst comprises at least one low surface area metal oxide, refractory binder, the binder being silica, alumina, titania, zirconia, or silica-alumina.

12. The method of claim 11, wherein the metal oxide, refractory binder further comprises a second metal oxide, refractory binder different from the first

metal oxide, refractory binder.

13. The method of claim 11, wherein the dewaxing catalyst comprises a micropore surface area to total surface area ratio of greater than or equal to 25%, wherein the total surface area equals the surface area of the external zeolite plus the surface area of the binder, the surface area of the binder being 100 m^2/g or less.

14. The method of claim 1, wherein the hydrocracking catalyst is a zeolite Y based catalyst.

15. The method of claim 1 further including hydrofinishing the hydrocracked, dewaxed bottoms fraction under effective hydrofinishing conditions prior to the second fractionating step.

16. The method of claim 1, wherein fractionating to form a lubricant base oil product fraction comprises forming a plurality of lubricant base oil products, including a lubricant base oil product having a viscosity of at least 2cSt, and a lubricant base oil product having a viscosity of at least 4 cSt suitable for use in engine oils made according to SAE J300 in 0W-, 5W-, or 10W- grades.