Nemba Crude Oil Assay

WHOLE CRUDE	
Gravity, °API	38.6
Specific Gravity	0.83
Sulfur, wt %	0.22
Nitrogen, ppm	1580
Pour Point °F	19.9
Pour Point °C	-6.7
Acid Number, mg KOH/g	0.18
Back-Blended Acid, mg KOH/g	0.11
Viscosity @ 40 °C (104 °F), cSt	4.15
Viscosity @ 50 °C (122 °F), cSt	3.43
Asphaltenes, C7, %	0.52
Nickel, ppm	8.35
Vanadium, ppm	3.83
Characterization Factor, K	12.08

TBP YIELDS, VOL %	
Butanes and Lighter	2.47
Light Gasoline (55-175 °F)	8.63
Light Naphtha (175-300 °F)	16.67
Heavy Naphtha (300-400 °F)	11.60
Kerosene (400-500 °F)	10.71
Atm. Gas Oil (500-650 °F)	13.36
Lt Vacuum Gas Oil (650-800 °F)	11.46
Hvy Vacuum Gas Oil (800-1050 °F)	14.79
Vacuum Residuum (1050 °F+)	10.31

LIGHT GASOLINE (55-175 °F)	
Gravity, °API	83.1
Specific Gravity	0.66
Mercaptan Sulfur, ppm	0.06
Octane Number, Research, Clear	74.3

LIGHT NAPHTHA (175-300 °F)	
Gravity, °API	57.5
Specific Gravity	0.75
Mercaptan Sulfur, ppm	0.40
Naphthenes, vol %	39.8
Aromatics, vol %	10.07
Octane Number, Research, Clear	62.7

HEAVY NAPHTHA (300-400 °F)	
Gravity, °API	48.1
Specific Gravity	0.79
Sulfur, wt %	0.01
Mercaptan Sulfur, ppm	1.76
Naphthenes, vol %	26.05
Aromatics, vol %	15.74
Smoke Point, mm (ASTM)	26.5

KEROSENE (400-500 °F)	
Gravity, °API	40.7
Specific Gravity	0.82
Sulfur, wt %	0.05
Mercaptan Sulfur, ppm	2.41
Naphthenes, vol %	30.47
Aromatics, vol %	19.49
Freezing Point, °F	-29.6
Freezing Point, °C	-34.2
Smoke Point, mm (ASTM)	20.2
Acid Number, mg KOH/g	0.12
Viscosity @ 50 °C (122 °F), cSt	1.52

ATM. GAS OIL (500-650 °F)	
Gravity, °API	35.3
Specific Gravity	0.85
Sulfur, wt %	0.15
Nitrogen, ppm	136
Acid Number, mg KOH/g	0.17
Pour Point °F	25.7
Pour Point °C	-3.5
Viscosity @ 50 °C (122 °F), cSt	3.36
Cetane Index	58.5
Characterization Factor, K	11.92

Nemba Crude Oil Assay

ATM. RESIDUUM (650 °F+)	
Yield, vol%	36.56
Gravity, °API	20
Specific Gravity	0.93
Sulfur, wt %	0.48
Nitrogen, ppm	3790
MCR, wt%	5.68
Asphaltenes, C7, %	1.26
Nickel, ppm	20.3
Vanadium, ppm	9.32
Pour Point °F	94.1
Pour Point °C	34.5
Viscosity @ 50 °C (122 °F), cSt	143
Viscosity @ 100 °C (212 °F), cSt	19.3
Characterization Factor, K	11.98

LT VAC. GAS OIL (650-800 °F)	
Gravity, °API	28.4
Specific Gravity	0.89
Sulfur, wt %	0.31
Nitrogen, ppm	974
Naphthenes, vol %	40.32
Paraffins, vol%	30.59
Pour Point °F	75
Pour Point °C	23.9
Acid Number, mg KOH/g	0.23
Aniline Point, °F	184.8
Aniline Point, °C	84.9
Hydrogen, wt%	12.98
Viscosity @ 50 °C (122 °F), cSt	11.2
Viscosity @ 100 °C (212 °F), cSt	3.42
Characterization Factor, K	11.96

HVY VAC. GAS OIL (800-1050 °F)	
Gravity, °API	22.1
Specific Gravity	0.92
Sulfur, wt %	0.41
Nitrogen, ppm	2750
Pour Point °F	119.3
Pour Point °C	48.5
Acid Number, mg KOH/g	0.151
Aniline Point, °F	200.9
Aniline Point, °C	93.8
Hydrogen, wt%	12.42
Viscosity @ 50 °C (122 °F), cSt	78
Viscosity @ 100 °C (212 °F), cSt	11.8
Characterization Factor, K	12.08

VACUUM RESIDUUM (1050 °F+)	
Yield, vol%	10.31
Gravity, °API	9.1
Specific Gravity	1.01
Sulfur, wt %	0.72
Nitrogen, ppm	7930
Hydrogen, wt%	11.62
MCR, wt%	17.9
Asphaltenes, C7, %	4.11
Nickel, ppm	66.6
Vanadium, ppm	30.6
Pour Point °F	147.6
Pour Point °C	64.2
Viscosity @ 50 °C (122 °F), cSt	211000
Viscosity @ 100 °C (212 °F), cSt	1730
Viscosity @ 135 °C (275 °F), cSt	236
Cutter, vol% in Fuel Oil	33
Fuel Oil Yield, vol%	15.4
Characterization Factor, K	11.8