N'Kossa Crude Oil Assay

WHOLE CRUDE	
Gravity, °API	41.3
Specific Gravity	0.82
Sulfur, wt %	0.06
Nitrogen, ppm	766
Pour Point °F	16
Pour Point °C	-8.9
Acid Number, mg KOH/g	0.04
Back-Blended Acid, mg KOH/g	0.03
Viscosity @ 40 °C (104 °F), cSt	3.23
Viscosity @ 50 °C (122 °F), cSt	2.61
Asphaltenes, C7, %	0.02
Nickel, ppm	3.35
Vanadium, ppm	0.61
Characterization Factor, K	12.26

TBP YIELDS, VOL %	
Butanes and Lighter	1.15
Light Gasoline (55-175 °F)	8.47
Light Naphtha (175-300 °F)	17.37
Heavy Naphtha (300-400 °F)	11.27
Kerosene (400-500 °F)	11.08
Atm. Gas Oil (500-650 °F)	15.16
Lt Vacuum Gas Oil (650-800 °F)	12.6
Hvy Vacuum Gas Oil (800-1050 °F)	13.71
Vacuum Residuum (1050 °F+)	9.21

LIGHT GASOLINE (55-175 °F)	
Gravity, °API	84.5
Specific Gravity	0.6549
Mercaptan Sulfur, ppm	0.223
Octane Number, Research, Clear	71

LIGHT NAPHTHA (175-300 °F)	
Gravity, °API	59.6
Specific Gravity	0.74
Mercaptan Sulfur, ppm	1.14
Naphthenes, vol %	33.06
Aromatics, vol %	8.91
Octane Number, Research, Clear	59.3

HEAVY NAPHTHA (300-400 °F)	
Gravity, °API	50.3
Specific Gravity	0.78
Sulfur, wt %	0.00
Mercaptan Sulfur, ppm	2.45
Naphthenes, vol %	43.05
Aromatics, vol %	11.47
Smoke Point, mm (ASTM)	32

KEROSENE (400-500 °F)	
Gravity, °API	42.8
Specific Gravity	0.81
Sulfur, wt %	0.01
Mercaptan Sulfur, ppm	3.7
Naphthenes, vol %	46.24
Aromatics, vol %	12.49
Freezing Point, °F	-26.5
Freezing Point, °C	-32.5
Smoke Point, mm (ASTM)	26.1
Acid Number, mg KOH/g	0.02
Viscosity @ 50 °C (122 °F), cSt	1.51

ATM. GAS OIL (500-650 °F)	
Gravity, °API	37.1
Specific Gravity	0.84
Sulfur, wt %	0.05
Nitrogen, ppm	68.5
Acid Number, mg KOH/g	0.03
Pour Point °F	22.5
Pour Point °C	-5.3
Viscosity @ 50 °C (122 °F), cSt	3.28
Cetane Index	63
Characterization Factor, K	12.05

N'Kossa Crude Oil Assay

ATM. RESIDUUM (650 °F+)	
Yield, vol%	35.52
Gravity, °API	24.6
Specific Gravity	0.91
Sulfur, wt %	0.14
Nitrogen, ppm	1920
MCR, wt%	2.84
Asphaltenes, C7, %	0.05
Nickel, ppm	8.51
Vanadium, ppm	1.54
Pour Point °F	87.4
Pour Point °C	30.8
Viscosity @ 50 °C (122 °F), cSt	75.2
Viscosity @ 100 °C (212 °F), cSt	13.3
Characterization Factor, K	12.3

LT VAC. GAS OIL (650-800 °F)	
Gravity, °API	30.7
Specific Gravity	0.87
Sulfur, wt %	0.09
Nitrogen, ppm	491
Naphthenes, vol %	51.2
Paraffins, vol%	34.8
Pour Point °F	71.5
Pour Point °C	22
Acid Number, mg KOH/g	0.05
Aniline Point, °F	199.3
Aniline Point, °C	93
Hydrogen, wt%	13.56
Viscosity @ 50 °C (122 °F), cSt	10.7
Viscosity @ 100 °C (212 °F), cSt	3.41
Characterization Factor, K	12.12

HVY VAC. GAS OIL (800-1050 °F)	
Gravity, °API	25.5
Specific Gravity	0.90
Sulfur, wt %	0.12
Nitrogen, ppm	1240
Pour Point °F	114.8
Pour Point °C	46
Acid Number, mg KOH/g	0.07
Aniline Point, °F	225.8
Aniline Point, °C	107.7
Hydrogen, wt%	13.32
Viscosity @ 50 °C (122 °F), cSt	64.8
Viscosity @ 100 °C (212 °F), cSt	11.5
Characterization Factor, K	12.33

VACUUM RESIDUUM (1050 °F+)	
Yield, vol%	9.21
Gravity, °API	15.7
Specific Gravity	0.96
Sulfur, wt %	0.22
Nitrogen, ppm	4620
Hydrogen, wt%	12.76
MCR, wt%	9.61
Asphaltenes, C7, %	0.18
Nickel, ppm	30.4
Vanadium, ppm	5.54
Pour Point °F	91.7
Pour Point °C	33.2
Viscosity @ 50 °C (122 °F), cSt	11200
Viscosity @ 100 °C (212 °F), cSt	328
Viscosity @ 135 °C (275 °F), cSt	73.6
Cutter, vol% in Fuel Oil	23.7
Fuel Oil Yield, vol%	12.1
Characterization Factor, K	12.2