

**EBOK216X**

	Whole crude	Butane and Lighter IBP - 60F	Lt. Naphtha C5 - 165F	Hvy Naphtha 165 - 330F	Kerosene 330 - 480F	Diesel 480 - 650F	Vacuum Gas Oil 650 - 1000F	Vacuum Residue 1000F+
Cut volume, %	100.0	0.6	1.6	5.7	11.9	22.6	38.6	19.1
API Gravity,	19.8	119.5	84.9	54.0	34.5	24.2	14.2	5.9
Specific Gravity (60/60F),	0.935	0.564	0.654	0.763	0.852	0.909	0.971	1.030
Carbon, wt %	87.0	82.5	83.9	85.8	86.8	87.4	87.4	86.6
Hydrogen, wt %	12.1	17.5	16.1	14.2	13.1	12.2	11.6	11.6
Pour point, F	(35.5)			(195.4)	(170.1)	(133.9)	57.7	128.4
Neutralization number (TAN), MG/GM	2.955	-	0.000	0.000	0.165	2.588	4.442	2.804
Sulfur, wt%	0.396	0.000	0.001	0.011	0.073	0.254	0.439	0.741
Viscosity at 20C/68F, cSt	191.0	0.4	0.6	1.0	2.4	13.9	8,955.4	381,699,456,277.7
Viscosity at 40C/104F, cSt	54.7	0.4	0.5	0.8	1.7	6.7	877.4	853,562,813.2
Viscosity at 50C/122F, cSt	33.4	0.3	0.4	0.7	1.4	5.0	360.8	77,883,008.5
Mercaptan sulfur, ppm	6.0	1.8	5.6	3.6	2.7	1.4	0.3	0.0
Nitrogen, ppm	4,665.3	-	-	0.3	10.6	226.3	3,205.4	15,834.3
CCR, wt%	4.3						0.4	19.6
N-Heptane Insolubles (C7 Asphaltenes), wt%	0.0						-	0.1
Nickel, ppm	33.1							157.5
Vanadium, ppm	5.8							27.5
Calcium, ppm	9.3							
Reid Vapor Pressure (RVP) Whole Crude, psi	1.0							
Hydrogen Sulfide (dissolved), ppm	-							
Salt content, ptb	6.5							
Paraffins, vol %	6.7	100.0	82.2	35.2	11.9	2.0	0.9	0.0
Naphthenes, vol %	43.1	-	17.8	54.0	61.6	63.5	43.8	6.3
Aromatics (FIA), vol %	50.2	-	-	10.8	26.5	34.4	55.3	93.7
Distillation type, TBP								
IBP, F	50.3		60.6	166.4	331.2	481.0	651.4	1,001.3
5 vol%, F	262.9		66.4	178.1	341.6	489.7	664.0	1,012.7
10 vol%, F	368.6		70.5	190.1	352.6	499.1	678.2	1,025.9
20 vol%, F	482.0		77.2	211.9	372.9	517.4	707.1	1,053.8
30 vol%, F	561.2		83.9	231.1	391.0	535.1	736.9	1,083.9
40 vol%, F	633.1		101.4	248.5	407.0	552.3	767.7	1,117.0
50 vol%, F	706.7		110.8	264.4	421.5	568.9	800.0	1,153.9
60 vol%, F	786.2		129.8	279.2	434.7	585.3	834.0	1,195.6
70 vol%, F	876.8		139.5	293.0	447.0	601.4	870.3	1,244.2
80 vol%, F	988.3		148.6	306.0	458.5	617.6	909.5	1,303.0
90 vol%, F	1,144.7		157.0	318.3	469.5	633.7	952.3	1,378.6
95 vol%, F	1,265.2		161.0	324.2	474.8	641.8	975.5	1,427.5
EP, F	1,456.8		164.6	329.4	479.5	649.2	997.5	1,500.5
Freeze point, F				(185.7)	(159.1)	(121.3)		
Smoke point, mm				25.4	17.1	10.0		
Naphthalenes (D1840), vol%					0.6	7.2		
Viscosity at 100C/212F, cSt	6.4	0.3	0.3	0.4	0.8	1.8	21.5	30,098.5
Viscosity at 150C/302F, cSt	2.5	0.2	0.2	0.3	0.5	1.0	5.2	535.9
Cetane Index 1990 (D4737),				30.4	29.1	33.3		
Cloud point, F				(191.8)	(166.4)	(128.6)		
Aniline pt, F					125.9	120.4	135.5	