

BONGA14X

Whole		Butane and	Lt. Naphtha C5-	Hvy Naphtha	Kerosene	Diesel 480 -	Vacuum Gas Oil	Vacuum Residue		
crude -		Lighter -200 to	165F 60 to 165	165 - 330F 165	330 - 480F	650F 480 to	650 - 1000F 650	1000F+ 1000 to		
200 to		60	165F 60 to 165	to 330	330 to 480	650	to 1000	1499		
1499		60	165F 60 to 165	to 330	330 to 480	650	to 1000	1499		
IBP,FBP,F		IBP,60,F	60,165,F	165,330,F	330,480,F	480,650,F	650,1000,F	1000,FBP,F		
Cut volume, %	YLD,V,%	100	0.97	3.81	14.43	16.93	24.84	31.06	7.96	
API Gravity,	API,none	30.2988	119.90	82.78	51.00	37.01	29.18	19.52	13.60	
Specific Gravity (60/60F),	SPG,60F,none	0.87454	0.56	0.66	0.78	0.84	0.88	0.94	0.98	
Carbon, wt %	_C,%	86.8428	82.50	84.02	86.09	86.89	86.98	87.42	86.59	
Hydrogen, wt %	_H2,%	12.7879	17.50	15.98	13.91	13.05	12.80	12.05	11.99	
Pour point, F	PPT,F	2.3	-225.59	-187.03	-137.84	-79.50	-11.37	79.68	112.25	
Neutralization number (TAN), MG/GM	ACI,mgKOH/g	0.42969	0.00	0.01	0.06	0.16	0.39	0.77	0.46	
Sulfur, wt%	SUL,%	0.23498	0.00	0.00	0.01	0.06	0.20	0.34	0.70	
Viscosity at 20C/68F, cSt	VIS,20C,cSt	9.7463	0.42	0.56	0.89	2.16	8.86	755.41	20761011.09	
Viscosity at 40C/104F, cSt	VIS,40C,cSt	5.40727	0.36	0.46	0.71	1.55	4.91	150.52	529113.25	
Viscosity at 50C/122F, cSt	VIS,50C,cSt	4.24753	0.34	0.43	0.65	1.35	3.86	80.43	123477.32	
Mercaptan sulfur, ppm	MER,ppm	1.01941	0.00	0.00	0.17	1.71	1.45	0.18	0.00	
Nitrogen, ppm	TN2,ppm	1037.67	0.00	0.00	0.59	13.30	121.07	1455.93	5831.44	
CCR, wt%	MCRT,%	1.24503	0.00	0.00	0.00	0.00	0.00	0.25	13.06	
N-Heptane Insolubles (C7 Asphaltenes), wt%	AS7,%	0.01885	0.00	0.00	0.00	0.00	0.00	0.00	0.21	
Nickel, ppm	NIK,ppm	3.01668	0.00	0.00	0.00	0.00	0.00	0.00	33.88	
Vanadium, ppm	VAN,ppm	0.23781	0.00	0.00	0.00	0.00	0.00	0.00	2.67	
Calcium, ppm	_CA,ppm	0.5								
Reid Vapor Pressure (RVP) Whole Crude, psi	RVP,psi	4.4	94.20	12.68	1.13	0.04	0.00	0.00	0.00	
Hydrogen Sulfide (dissolved), ppm	HSD,ppm	0								
Salt content, ptb	SAL,lb/1000bbl	1.2								
Paraffins, vol %	PAR,V,%	16.6019	100.00	76.41	25.52	19.50	18.09	10.24	1.40	
Naphthenes, vol %	NAP,V,%	39.5673	0.00	23.59	60.54	48.13	52.95	41.73	15.61	
Aromatics (FIA), vol %	ARO,V,%	31.3327	0.00	0.00	13.94	32.38	28.96	48.02	82.99	
Distillation type, D-		86	86	86	86	86	1160	1160		
ASTM IBP, F	D86P,0.5%,F	D1160P,0.5%,F	80.0849	-104.72	101.80	209.71	368.97	510.33	675.37	1022.67
5 vol%, F	D86P,5%,F	D1160P,5%,F	200.776	-79.99	103.87	213.30	371.28	513.62	682.79	1029.09
10 vol%, F	D86P,10%,F	D1160P,10%,F	256.117	-53.98	104.76	215.78	373.49	515.78	688.30	1033.70
20 vol%, F	D86P,20%,F	D1160P,20%,F	353.813	0.98	108.65	223.65	381.57	523.43	709.11	1051.28
30 vol%, F	D86P,30%,F	D1160P,30%,F	439.624	22.98	116.76	230.95	389.25	530.92	731.18	1070.95
40 vol%, F	D86P,40%,F	D1160P,40%,F	502.118	27.03	122.18	240.51	398.87	540.93	754.92	1093.58
50 vol%, F	D86P,50%,F	D1160P,50%,F	559.817	35.40	132.59	249.91	407.77	550.79	780.43	1119.85
60 vol%, F	D86P,60%,F	D1160P,60%,F	622.162	38.10	137.03	260.24	416.78	561.67	812.43	1155.39
70 vol%, F	D86P,70%,F	D1160P,70%,F	694.532	40.79	141.09	270.55	425.29	572.63	848.19	1198.94
80 vol%, F	D86P,80%,F	D1160P,80%,F	797.748	43.36	144.54	281.60	433.71	584.72	889.18	1255.25
90 vol%, F	D86P,90%,F	D1160P,90%,F	932.55	45.93	148.09	292.69	441.74	597.21	938.09	1336.23
95 vol%, F	D86P,95%,F	D1160P,95%,F	977.847	49.55	154.29	302.00	449.95	607.01	966.91	1396.16
ASTM EP, F	D86P,99.5%,F	D1160P,99.5%,F	1070.41	61.17	159.87	312.42	459.02	618.86	997.59	1488.03
Freeze point, F	FPT,F		96.5429	-214.17	-175.91	-126.12	-68.22	1.42	92.65	157.15
Smoke point, mm	SMO,mm		14.3576	32.01	28.87	24.57	19.01	14.06	7.90	2.96
Naphthalenes (D1840), vol%	NPH,V,%		6.56449	0.00	0.00	0.00	2.51	8.98	10.13	9.57
Viscosity at 100C/212F, cSt	VIS,100C,cSt		1.77552	0.26	0.31	0.42	0.77	1.62	10.29	955.62
Viscosity at 150C/302F, cSt	VIS,150C,cSt		1.01774	0.21	0.25	0.32	0.51	0.93	3.40	72.85
Cetane Index 1990 (D4737),	CET,none		33.4775	143.48	53.47	21.91	32.63	42.80	44.48	43.31
Cloud point, F	CPT,F		87.4102	-221.40	-183.12	-133.61	-75.25	-6.99	84.90	149.75
Aniline pt, F	ANI,F		149.522	179.38	148.35	114.70	122.84	146.20	170.72	181.88