

Blend	Density (g/mL)	KV50 (cSt)	V50	Sulfur (ppm m/m)	BMCI	BMCI-		Asphaltenes wt%	NCR wt%	CCAI	Cetane	Oxygen wt%
						TE	TE					
1-A	0.9245	40.17	26.16	6579.92	48.62	22.94	25.68	0.06	2.90	814.22	21.43	0.31
2-A	0.9229	34.96	25.61	6849.04	48.41	22.96	25.45	0.60	3.10	814.86	19.29	0.33
3-A	0.8910	12.07	20.74	2221.82	39.51	22.00	17.50	0.02	0.80	803.49	47.82	0.09
4-A	0.8703	5.73	16.28	1399.52	34.85	21.16	13.69	0.01	0.50	801.63	50.15	0.05
1-B	0.9072	37.38	25.88	5561.84	41.14	22.94	18.21	0.06	2.90	798.09	26.30	0.60
2-B	0.9048	32.60	25.33	5782.48	40.60	22.96	17.65	0.06	3.00	798.00	24.42	0.63
3-B	0.8863	11.96	20.69	1930.94	37.47	22.00	15.47	0.02	0.80	799.04	49.04	0.17
4-B	0.8677	5.71	16.26	1229.84	33.69	21.16	12.53	0.01	0.50	799.07	50.85	0.10
1-C	0.9091	12.67	20.99	5709.68	49.49	22.91	26.58	0.04	2.00	820.57	26.32	0.85
2-C	0.9068	10.98	20.23	5937.36	49.32	22.94	26.39	0.04	2.10	821.49	24.43	0.89
3-C	0.8863	11.96	20.69	1930.94	37.47	22.00	15.47	0.02	0.80	799.04	49.04	0.17
4-C	0.8680	5.09	15.47	1254.48	35.03	20.51	14.52	0.01	0.30	802.68	50.86	0.14

FIG. 1

Properties	HHAGO 1	HHAGO 2w	Distillate 1 (NSB)	Distillate 2 (NCR)	HCGO	MGO
Density @15°C (D4052) (kg/m³)	875.8		776.4	950.7	861.9	849.9
Distillation (D86) (°C)						
IBP	315.6		157.2	201.6	227.7	197.1
T10	329.8		159.1	207.6	267.8	238.9
T50	356.6		161.5	224.9	324.1	307.8
T90	388.7		167.9	311.8	373.7	369.0
T95	398.7		171.2	335.4	386.4	384.3
FBP	408.1		185.4	368.9	395.4	396.0
Pour Point (D97) (°C)	18		< -60	-45	6	3
Cloud Point (D5771) (°C)	23		< -60	-24	10	8
Sulfur (D2622) (wt%)	0.189		0.071	< 0.0003	0.0003	0.034
KV @40°C (D445) (mm²/s)	11.74		0.8461	1.9	6.393	4.647
Cetane Index (D4737)	62.2		39.6	23.2	55.5	55.3
Flash Point (D6450) (°C)	---		39.1	82.1	---	---

FIG. 2

		MGO 1			MGO 2			MGO 3			Conventional		DMA
											MGO	ISO 8217	
Viscosity (at 40 °C)	ISO 3104	mm ² /s	7.234	9.723	3.726	3.726	3.726	3.726	3.726	3.726	3.726	2.0-8.0	
Viscosity (at 40 °C)	ASTM D445	mm ² /s	8.314	9.449	3.503	3.503	3.503	3.503	3.503	3.503	4.647	-	
Viscosity (at 20 °C)	ASTM D445	mm ² /s	12.43	-	5.525	5.525	5.525	5.525	5.525	5.525	8.72	-	
Viscosity (at 10 °C)	ASTM D445	mm ² /s	-	23.32	7.467	7.467	7.467	7.467	7.467	7.467	11.42	-	
Density (at 15 °C)	ISO 12185 / ISO 3675*	g/mL	0.8669	0.8722	0.8457	0.8457	0.8457	0.8457	0.8457	0.847	0.847	0.890 (max)	
Sulfur	ISO 8754	wt %	0.130	0.120	0.045	0.045	0.045	0.045	0.045	0.045	0.045	0.10	
Cloud Point	D5771	°C	19.0	19.0	5.0	5.0	5.0	5.0	5.0	6.0	6.0	Report	
Pour Point	D97	°C	18.0	18.0	-6.0	-6.0	-6.0	-6.0	-6.0	3.0	3.0	0.0	
Bromine Number	D1159	g Br/100 g	0.47	0.46	0.49	0.49	0.49	0.49	0.49	0.25	0.25	-	
Cetane Index	ISO 4264	-	53.1	58.5	52.4	52.4	52.4	52.4	52.4	57.4	57.4	40 (min)	
Flash Point	ISO 2719	°C	75.0	121.5	71.0	71.0	71.0	71.0	71.0	89.5	89.5	60 (min)	
Hydrogen Sulfide Content	IP 570	mg/kg	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	2.00 (max)	
Acid Number	D664-A	mg KOH/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.5 (max)	
Carbon Residue (on 10% bottom)	ISO 10370	%(m/m)	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.3 (max)	

FIG. 3