

HIBERNIA - SUMMARY OF MAJOR CUTS

	Whole Crude	Light Naphtha	Medium Naphtha	Heavy Naphtha	Kero	Atm Gas Oil	Light VGO	Heavy VGO	Vacuum Resid	Atm Resid
TBP Temp At Start, °C	Start	10	80	150	200	260	340	450	570	340
TBP Temp At End, °C	End	80	150	200	260	340	450	570	End	End
TBP Temp At Start, °F	Start	55	175	300	400	500	650	850	1050	650
TBP Temp At End, °F	End	175	300	400	500	650	850	1050	End	End
Yield at Start, vol%		1.6	7.3	21.3	30.9	41.6	56.7	74.3	86.6	56.7
Yield at End, vol%		7.3	21.3	30.9	41.6	56.7	74.3	86.6	100.0	100.0
Yield of Cut (wt% of Crude)		4.5	12.6	8.9	10.4	15.1	18.4	13.3	15.6	47.3
Yield of Cut (vol% of Crude)		5.7	14.0	9.6	10.7	15.1	17.6	12.3	13.4	43.3
Gravity, °API	35.9	81.0	53.9	48.6	40.7	35.2	28.1	22.8	13.0	21.6
Specific Gravity	0.8454	0.6660	0.7632	0.7857	0.8218	0.8489	0.8868	0.9168	0.9791	0.9240
Sulfur, wt%	0.34	0.00	0.00	0.01	0.02	0.15	0.40	0.53	1.07	0.66
Mercaptan Sulfur, ppm		1	2	2	3	3	3			
Nitrogen, ppm	1035		0	1	1	51	710	1837	4186	2170
Hydrogen, wt%		16.1	15.9	15.4	14.6	14.0	13.2	12.5		
Viscosity @ 40 °C (104 °F), cSt	5.09			1.07	1.74	4.06	16.9	168	69661	257
Viscosity @ 50 °C (122 °F), cSt	3.55			0.938	1.47	3.26	12.2	93.8	20100	141
Viscosity @ 100 °C (212 °F), cSt	1.04			0.563	0.797	1.46	3.84	13.6	465	19.1
Viscosity @ 135 °C (275 °F), cSt	0.610			0.438	0.591	0.994	2.27	6.03	110	8.21
Freeze Point, °C				-58.000	-31.000	2.00	45.0			
Freeze Point, °F				-72	-23	36	113			
Pour Point, °C	13		-87	-60	-34	-1	34	51	35	29
Pour Point, °F	55		-125	-76	-29	31	93	124	95	84
Smoke Point, mm (ASTM)				25	20	17	15			
Aniline Point, °C				52	60	71	86	98		
Aniline Point, °F				125	140	160	187	208		
Total Acid Number, mg KOH/g	0.11	0.0	0.0	0.0	0.0	0.0	0.1	0.2		
Cetane Index, ASTM D976				37	46	52				
Diesel Index				61	57	56	52	48		
Characterization Factor (K Factor)	11.6	12.7	11.6	11.8	11.8	11.9	12.0	12.2	12.0	12.0
Research Octane Number, Clear		64.8	56.4	34.2						
Motor Octane Number, Clear		63.0								
Paraffins, vol%		83.1	48.1	51.2	46.9	40.0	30.6			
Naphthenes, vol%		16.9	35.2	30.4	31.8	33.0	36.1			
Aromatics, vol%		0.0	16.7	18.4	21.2	27.0	33.3			
Thiophenes, vol%										
Molecular Weight	233	103	112	143	176	227	326	471	824	436
Gross Heating Value, MM BTU/bbl	5.81	4.86	5.38	5.52	5.71	5.85	6.03	6.18	6.42	6.20
Gross Heating Value, kcal/kg	10900	11580	11190	11140	11050	10940	10800	10690	10390	10660
Gross Heating Value, MJ/kg	45.6	48.5	46.8	46.6	46.2	45.8	45.2	44.7	43.5	44.6
Heptane Asphaltenes, wt%	0.9								5.6	1.9
Micro Carbon Residue, wt%	1.2								8.0	2.6
Ramsbottom Carbon, wt%	1.2								7.6	2.5
Vanadium, ppm	1								6	2
Nickel, ppm	1								6	2
Iron, ppm										

HIBERNIA - DISTILLATION SUMMARY

	Whole Crude	Light Naphtha	Medium Naphtha	Heavy Naphtha	Kero	Atm Gas Oil	Light VGO	Heavy VGO	Vacuum Resid	Atm Resid
TBP Temp At Start, °C		10	80	150	200	260	340	450	570	340
TBP Temp At End, °C		80	150	200	260	340	450	570	End	End
TBP Temp At Start, °F		55	175	300	400	500	650	850	1050	650
TBP Temp At End, °F		175	300	400	500	650	850	1050	End	End
Yield at Start, vol%		1.6	7.3	21.3	30.9	41.6	56.7	74.3	86.6	56.7
Yield at End, vol%		7.3	21.3	30.9	41.6	56.7	74.3	86.6	100.0	100.0
Yield of Cut (wt% of Crude)		4.5	12.6	8.9	10.4	15.1	18.4	13.3	15.6	47.3
Yield of Cut (vol% of Crude)		5.7	14.0	9.6	10.7	15.1	17.6	12.3	13.4	43.3
TBP Distillation, vol%	°C Start	10	80	150	200	260	340	450	570	340
	°C 5%	26	81	152	208	264	349	459	575	360
	°C 10%	30	85	154	211	268	355	463	583	372
	°C 30%	43	99	164	223	284	378	482	622	425
	°C 50%	62	113	173	233	301	401	502	663	484
	°C 70%	69	126	185	243	318	421	524	710	571
	°C 90%	72	141	198	254	334	443	551	761	704
	°C 95%	73	144	201	257	339	448	558	793	784
	°C End	80	150	200	260	340	450	570	End	End
TBP Distillation, vol%	°F Start	55	170	300	400	500	650	850	1050	650
	°F 5%	79	178	305	407	508	660	858	1067	680
	°F 10%	86	185	309	412	515	671	865	1082	702
	°F 30%	109	211	327	433	543	713	899	1151	797
	°F 50%	144	235	344	451	574	753	935	1226	904
	°F 70%	156	259	365	469	605	790	976	1310	1060
	°F 90%	161	286	388	489	634	829	1024	1402	1300
	°F 95%	164	292	394	494	642	839	1037	1460	1444
	°F End	175	300	400	500	650	850	1050	End	End