

BARROW ISLAND - 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%		1.4	7.6	27.2	43.9	61.1	81.3	93.4	98.9	81.3
Yield at End, vol%		7.6	27.2	43.9	61.1	81.3	93.4	98.9	100.0	100.0
Yield of Cut (wt% of Crude)		5.0	17.8	15.9	17.7	21.5	13.4	6.4	1.4	21.1
Yield of Cut (vol% of Crude)		6.2	19.6	16.7	17.2	20.2	12.1	5.5	1.1	18.7
Gravity, °API	38.0	79.1	55.3	45.8	33.8	27.8	21.0	14.7	7.7	18.2
Specific Gravity	0.8346	0.6718	0.7577	0.7979	0.8559	0.8885	0.9279	0.9681	1.0164	0.9450
Sulfur, wt%	0.05	0.00	0.00	0.01	0.02	0.04	0.11	0.21	0.34	0.15
Mercaptan Sulfur, ppm		9	2	2	2					
Nitrogen, ppm	316		0	0	1	29	533	2938	3813	1467
Hydrogen, wt%		16.0	14.7	15.1	13.9	13.2	12.3	11.4		
Viscosity @ 40 °C (104 °F), cSt	1.89			1.01	1.89	4.56	34.0	437	1.94E+06	142
Viscosity @ 50 °C (122 °F), cSt	1.64			0.873	1.56	3.53	22.2	216	3.34E+05	82.5
Viscosity @ 100 °C (212 °F), cSt	0.950			0.498	0.752	1.41	5.15	22.2	2160	13.4
Viscosity @ 135 °C (275 °F), cSt	0.726			0.379	0.533	0.917	2.71	8.74	352	6.16
Freeze Point, °C				-88.000	-60.000	-31.000				
Freeze Point, °F				-127	-76	-23				
Pour Point, °C	-54			-94	-66	-36	2	24	56	8
Pour Point, °F	-65			-137	-86	-33	36	76	133	46
Smoke Point, mm (ASTM)				22	16					
Aniline Point, °C				52	53	54	69	86	90	75
Aniline Point, °F				125	127	130	156	186	194	167
Total Acid Number, mg KOH/g	0.10	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Cetane Index, ASTM D976				33	35	40				
Diesel Index				57	43	36	33	27	15	31
Characterization Factor (K Factor)	11.7	12.5	11.6	11.7	11.3	11.3	11.4	11.5	11.7	11.6
Research Octane Number, Clear		74.9	60.2	41.2						
Motor Octane Number, Clear		71.4	58.4							
Paraffins, vol%		78.1	37.7	45.7	41.7					
Naphthenes, vol%		21.9	58.1	41.9	39.5					
Aromatics, vol%		0.0	4.3	12.3	18.9					
Thiophenes, vol%										
Molecular Weight	168	98	110	142	168	209	295	433	566	328
Gross Heating Value, MM BTU/bbl	5.77	4.89	5.35	5.57	5.85	6.01	6.20	6.37	6.57	6.28
Gross Heating Value, kcal/kg	10970	11550	11210	11080	10860	10730	10590	10430	10250	10530
Gross Heating Value, MJ/kg	45.9	48.3	46.9	46.4	45.5	44.9	44.3	43.7	42.9	44.1
Heptane Asphaltenes, wt%	0.0								1.9	0.1
Micro Carbon Residue, wt%	0.4								29.6	1.9
Ramsbottom Carbon, wt%	0.4								27.0	1.7
Vanadium, ppm	0								1	0
Nickel, ppm	2								112	7
Iron, ppm	3								228	15

BARROW ISLAND - 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%		1.4	7.6	27.2	43.9	61.1	81.3	93.4	98.9	81.3
Yield at End, vol%		7.6	27.2	43.9	61.1	81.3	93.4	98.9	100.0	100.0
Yield of Cut (wt% of Crude)		5.0	17.8	15.9	17.7	21.5	13.4	6.4	1.4	21.1
Yield of Cut (vol% of Crude)		6.2	19.6	16.7	17.2	20.2	12.1	5.5	1.1	18.7
TBP Distillation, vol%	°C Start	10	80	150	200	260	340	450	570	340
	°C 5%	25	81	152	208	263	347	458	567	349
	°C 10%	30	90	154	211	267	351	462	568	356
	°C 30%	46	97	165	223	280	369	478	574	386
	°C 50%	56	107	176	234	295	390	497	579	421
	°C 70%	67	124	187	244	312	412	522	581	469
	°C 90%	72	139	198	254	332	438	552	583	546
	°C 95%	73	146	202	257	338	446	562		594
	°C End	80	150	200	260	340	450	580	End	End
TBP Distillation, vol%	°F Start	50	175	300	400	500	650	850	1050	650
	°F 5%	77	177	305	406	506	657	857	1053	661
	°F 10%	86	194	310	411	512	664	864	1055	673
	°F 30%	115	206	329	433	536	697	893	1065	727
	°F 50%	133	224	348	453	563	734	927	1074	789
	°F 70%	152	255	369	472	593	773	972	1077	876
	°F 90%	161	282	389	490	630	821	1025	1081	1015
	°F 95%	164	294	395	495	640	835	1044		1102
	°F End	175	310	400	500	650	850	1070	End	End