

RINCON - 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	5.2	18.0	29.1	42.9	58.7	75.5	88.2	58.7
Yield at End, vol%		5.2	18.0	29.1	42.9	58.7	75.5	88.2	100.0	100.0
Yield of Cut (wt% of Crude)		3.0	11.3	10.4	13.5	15.9	17.5	13.8	13.7	45.0
Yield of Cut (vol% of Crude)		3.9	12.8	11.1	13.8	15.8	16.8	12.7	11.8	41.3
Gravity, °API	36.0	84.5	57.3	47.4	40.9	35.1	28.4	23.2	12.4	21.9
Specific Gravity	0.8447	0.6552	0.7496	0.7908	0.8206	0.8493	0.8849	0.9144	0.9835	0.9222
Sulfur, wt%	0.37	0.00	0.01	0.02	0.04	0.19	0.45	0.57	1.30	0.74
Mercaptan Sulfur, ppm		50	41	53	43	35	22			
Nitrogen, ppm	913			1	5	61	513	1515	4405	2004
Hydrogen, wt%	13.0	16.3	14.5	15.3	14.6	14.0	13.2	12.6		
Viscosity @ 40 °C (104 °F), cSt	4.79			1.037	1.69	3.82	22.4	876	6.73E+05	1292.1
Viscosity @ 50 °C (122 °F), cSt	3.56			0.927	1.48	3.15	15.4	318	98700	482
Viscosity @ 100 °C (212 °F), cSt	1.25			0.601	0.884	1.53	4.12	15.9	531	24.7
Viscosity @ 135 °C (275 °F), cSt	0.779			0.483	0.685	1.08	2.29	5.16	88.5	7.96
Freeze Point, °C				-65.000	-37.000	-3.000	34.0			
Freeze Point, °F				-85	-35	27	94			
Pour Point, °C	-4			-71	-37	-4	27	49	44	27
Pour Point, °F	25			-95	-35	25	80	121	111	81
Smoke Point, mm (ASTM)				22	18	15	14			
Aniline Point, °C				56	66	76	88	99		
Aniline Point, °F				133	151	169	191	211		
Total Acid Number, mg KOH/g	0.05			0.0	0.0	0.0	0.0	0.0		
Cetane Index, ASTM D976				37	47	52				
Diesel Index				63	62	59	54	49		
Characterization Factor (K Factor)	11.8	12.7	11.8	11.8	11.8	11.9	12.0	12.2	11.9	12.1
Research Octane Number, Clear		69.2	54.7	32.8						
Motor Octane Number, Clear		67.8	53.1							
Paraffins, vol%		90.7	54.6	50.9	48.6	43.9	34.1			
Naphthenes, vol%		9.3	35.0	31.8	32.9	38.0	38.0			
Aromatics, vol%		0.0	10.4	17.3	18.5	18.1	27.9			
Thiophenes, vol%										
Molecular Weight	223	98	116	144	176	226	317	483	761	440
Gross Heating Value, MM BTU/bbl	5.81	4.80	5.32	5.54	5.70	5.85	6.02	6.17	6.42	6.19
Gross Heating Value, kcal/kg	10930	11640	11270	11100	11030	10940	10780	10700	10360	10640
Gross Heating Value, MJ/kg	45.7	48.7	47.2	46.5	46.2	45.8	45.1	44.8	43.4	44.5
Heptane Asphaltenes, wt%	0.2								1.7	0.5
Micro Carbon Residue, wt%	2.2								16.1	4.9
Ramsbottom Carbon, wt%	2.1								15.4	4.7
Vanadium, ppm	6								45	14
Nickel, ppm	2								16	5
Iron, ppm	4								27	8

RINCON - 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	5.2	18.0	29.1	42.9	58.7	75.5	88.2	58.7
Yield at End, vol%		5.2	18.0	29.1	42.9	58.7	75.5	88.2	100.0	100.0
Yield of Cut (wt% of Crude)		3.0	11.3	10.4	13.5	15.9	17.5	13.8	13.7	45.0
Yield of Cut (vol% of Crude)		3.9	12.8	11.1	13.8	15.8	16.8	12.7	11.8	41.3
TBP Distillation, vol%	°C Start	10	80	150	200	260	340	450	570	340
	°C 5%	25	88	152	207	263	348	459	572	354
	°C 10%	29	90	154	210	267	353	465	579	367
	°C 30%	36	99	166	221	283	372	486	611	421
	°C 50%	49	116	178	232	300	393	507	644	487
	°C 70%	64	127	189	243	317	417	529	676	559
	°C 90%	71	138	199	254	334	441	552	706	668
	°C 95%	72	144	202	257	339	448	559	724	734
	°C End	80	160	200	260	340	450	570	End	End
TBP Distillation, vol%	°F Start	50	175	300	400	500	650	850	1050	650
	°F 5%	77	191	305	405	506	658	859	1062	670
	°F 10%	84	194	310	410	513	667	869	1075	693
	°F 30%	96	210	331	430	541	702	907	1131	790
	°F 50%	121	241	352	450	572	740	945	1192	908
	°F 70%	147	260	373	469	603	782	984	1249	1038
	°F 90%	159	281	391	489	634	826	1026	1302	1235
	°F 95%	161	292	396	494	642	838	1038	1335	1353
	°F End	180	320	400	500	650	850	1050	End	End