Crude Oil Assay – Hibernia (from Chevron site)

	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%		2.3	8.0	20.8	30.0	39.5	54.0	73.2	85.8	54.0
Yield at End, vol%		8.0	20.8	30.0	39.5	54.0	73.2	85.8	100.0	100.0
Yield of Cut (wt% of Crude)		4.4	11.5	8.5	9.1	14.6	20.0	13.7	16.7	50.4
Yield of Cut (vol% of Crude)		5.6	12.9	9.2	9.5	14.6	19.1	12.6	14.2	46.0
Gravity, °API	33.5	81.9	54.8	47.3	40.2	33.9	27.3	20.2	10.0	19.6
Specific Gravity	0.86	0.66	0.76	0.79	0.82	0.86	0.89	0.93	1.00	0.94
Sulfur, wt%	0.53	0.00	0.00	0.01	0.05	0.27	0.57	0.91	1.46	0.96
Mercaptan Sulfur, ppm		0	0	0	1					
Nitrogen, ppm	1384	0	0	0	1	56	579	2050	5860	2729
Hydrogen, wt%		16.2	13.9	14.2	13.7	13.2	12.9	12.5		
Viscosity @ 40 °C (104 °F), cSt	6.73	0.48	0.67	1.04	1.72	4.10	19.04	3.05E+02	4.E+05	2.89E+02
Viscosity @ 50 °C (122 °F), cSt	5.17	0.45	0.61	0.92	1.48	3.33	13.42	1.64E+02	1.E+05	1.62E+02
Viscosity @ 100 °C (212 °F), cSt	1.93	0.34	0.43	0.58	0.83	1.49	3.92	1.97E+01	1.E+03	2.16E+01
Viscosity @ 135 °C (275 °F), cSt	1.21	0.30	0.37	0.47	0.64	1.01	2.20	7.95E+00	2.E+02	9.00E+00
Freeze Point, °C	51	-122	-96	-68	-39	-2	30	53	78	63
Freeze Point, °F	125	-188	-141	-90	-39	28	87	128	172	146
Pour Point, °C	7	-128	-101	-71	-42	-7	26	48	35	36
Pour Point, °F	44	-198	-151	-96	-43	20	79	119	95	96
Smoke Point, mm (ASTM)	7	35	32	27	22	17	11	5	2	4
Aniline Point, °C	77	71	53	55	61	70	84	95	106	94
Aniline Point, °F	171	160	127	131	142	159	183	204	222	201
Total Acid Number, mg KOH/g	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cetane Index, ASTM D4737				40	47	56				
Diesel Index	57	131	70	62	57	54	50	41	22	39
Characterization Factor (K Factor)	12.0	12.6	11.7	11.8	11.8	11.8	12.0	12.0	12.1	12.0
Research Octane Number, Clear		71.8	64.1	37.3						
Motor Octane Number, Clear		70.3	62.5							
Paraffins, vol%		84.9	48.8	45.4	38.6					
Naphthenes, vol%		15.1	32.4	39.5	40.9					
Aromatics, vol%		0.0	18.8	14.9	20.0					
Thiophenes, vol%										
Molecular Weight	244	102	115	144	175	226	319	463	848	425
Gross Heating Value, MM BTU/bbl	5.88	4.84	5.37	5.55	5.72	5.87	6.04	6.23	6.50	6.24
Gross Heating Value, kcal/kg	10894	11589	11212	11121	11009	10896	10765	10595	10310	10582
Gross Heating Value, MJ/kg	45.6	48.5	46.9	46.5	46.1	45.6	45.0	44.3	43.1	44.3
Heptane Asphaltenes, wt%	0.1								0.6	0.2
Micro Carbon Residue, wt%	2.6								14.8	5.2
Ramsbottom Carbon, wt%	2.3								13.2	4.6
Vanadium, ppm	1								5	2
Nickel, ppm	1								4	1
Iron, ppm	1								3	1

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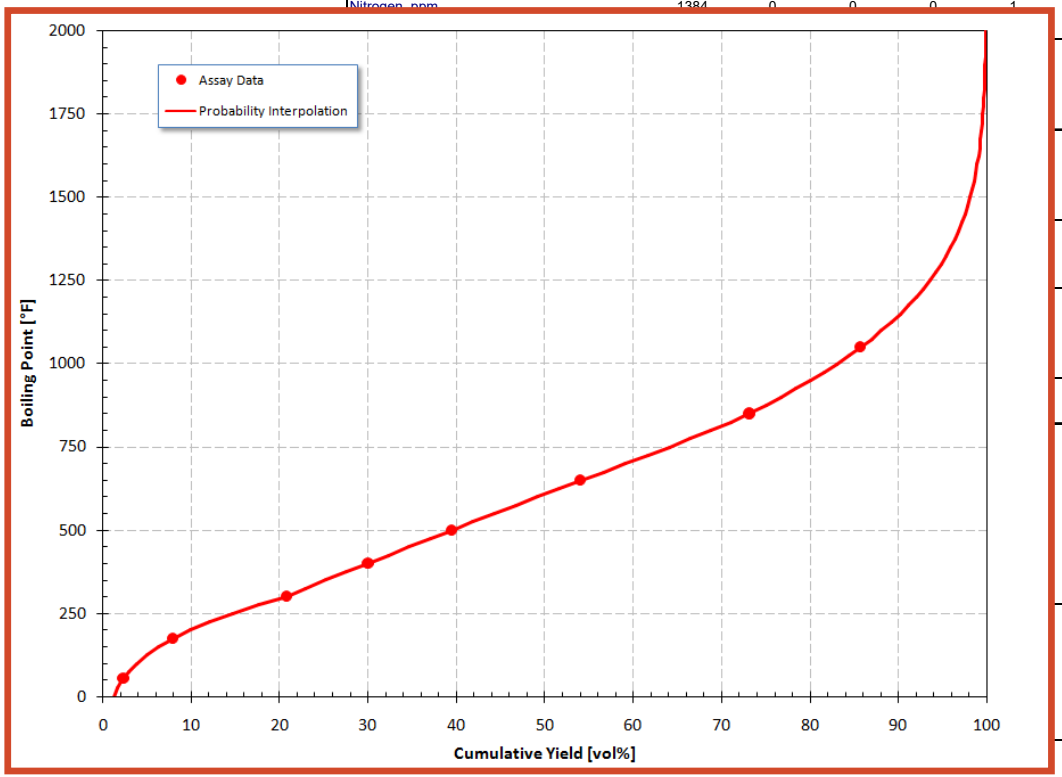

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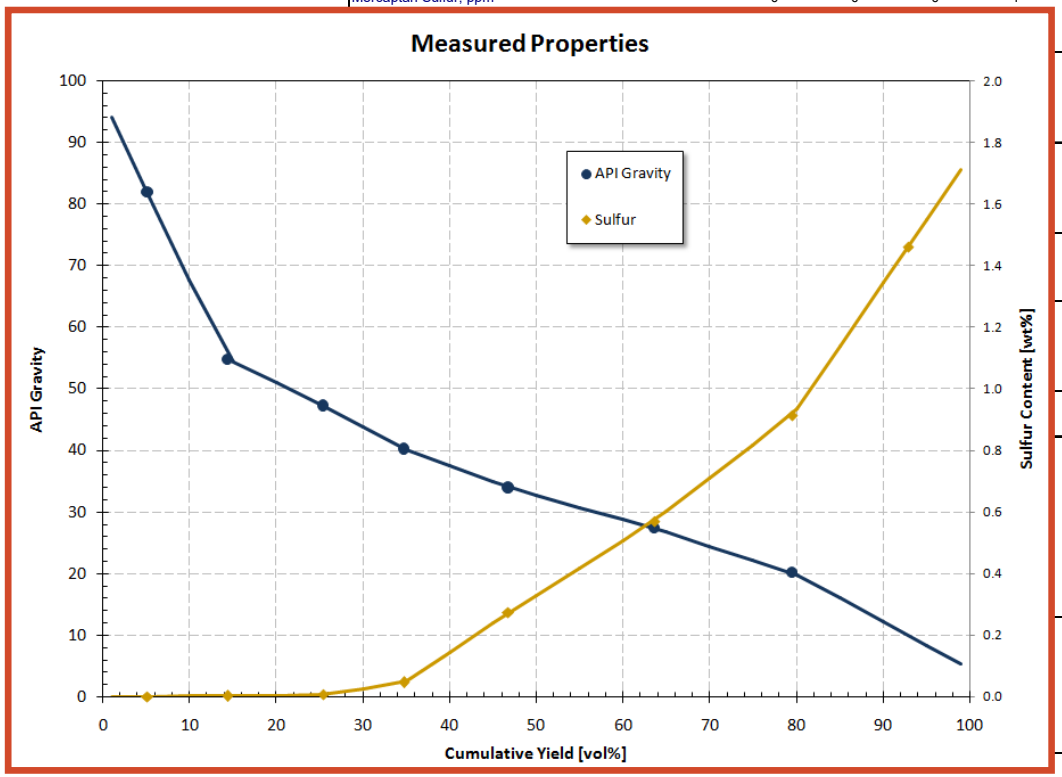

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