

Heavy Crude Quality Testing Project -- Typical Crude Properties

Crude	Sulphur (wt%)	API Gravity	Nickel (mg/L)	Vanadium (mg/L)	MCR (mass%)	TotalC4's (vol%)	TotalC5's (vol%)	Distillation Profile (%off at oC)					
								10%	20%	25%	50%	75%	FBP
Access Western Blend													
Average	3.93	22.0	70.86	191.11	10.64	0.70	8.42	82	235	306	498	686	717
Upper	4.14	23.7	81.89	209.79	11.66	0.98	10.81	111	317	353	537	714	720
Lower	3.72	20.4	59.84	172.43	9.61	0.42	6.03	54	154	259	459	658	714
Albian Heavy Synthetic													
Average	2.52	19.5	43.69	90.91	10.96	1.57	3.07	154	265	307	449	585	713
Upper	2.96	20.4	61.79	128.27	13.15	2.21	4.51	213	299	345	486	653	731
Lower	2.08	18.5	25.60	53.55	8.76	0.93	1.63	94	232	270	412	518	695
Bow River North													
Average	2.84	21.1	35.54	83.60	8.53	1.00	3.53	161	254	287	427	590	723
Upper	3.21	23.4	45.62	102.96	9.69	1.80	4.90	213	290	320	468	656	742
Lower	2.46	18.9	25.46	64.25	7.37	0.20	2.15	108	219	253	387	525	703
Bow River South													
Average	2.79	23.3	30.60	82.25	8.19	0.97	3.02	148	233	267	416	582	720
Upper	3.00	24.6	39.98	103.46	8.87	1.39	4.21	186	266	299	457	658	743
Lower	2.58	21.9	21.21	61.05	7.52	0.55	1.83	109	200	235	376	507	697
Cold Lake													
Average	3.62	20.8	62.54	161.30	10.62	1.01	6.78	110	249	292	459	637	721
Upper	3.93	22.5	74.25	190.48	11.42	1.49	8.58	170	311	348	517	725	751
Lower	3.30	19.0	50.84	132.12	9.81	0.54	4.99	50	188	237	401	549	690
Fosterton													
Average	3.14	20.3	44.96	103.73	9.74	0.54	1.18	178	259	292	438	609	719
Upper	3.31	21.4	53.54	123.41	10.75	1.25	1.88	206	283	316	468	665	736
Lower	2.96	19.3	36.39	84.06	8.73	0.00	0.48	149	234	268	408	552	702
Light Sour Blend													
Average	1.09	36.7	5.71	9.40	2.89	2.19	3.38	93	149	176	310	460	707
Upper	1.48	39.5	9.67	17.44	3.98	2.88	4.33	109	194	228	377	542	723
Lower	0.71	33.8	1.76	1.35	1.79	1.49	2.44	77	103	125	242	377	691
Lloyd Blend													
Average	3.36	20.9	54.91	119.40	9.68	2.13	4.78	133	261	299	460	636	722
Upper	3.60	22.5	66.15	144.41	10.48	2.65	6.00	197	295	328	510	718	743
Lower	3.13	19.3	43.66	94.38	8.88	1.60	3.56	69	228	271	410	555	702

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Lloyd Kerrobert													
Average	3.08	20.6	44.12	98.73	9.38	2.90	4.38	155	268	302	452	624	721
Upper	3.35	22.2	56.22	120.19	10.04	5.08	6.49	228	317	350	506	708	740
Lower	2.81	19.0	32.03	77.26	8.72	0.71	2.26	82	220	254	397	539	702
Long Lake Heavy													
Average	2.89	20.8	47.31	128.41	7.13	0.68	1.80	182	262	292	412	589	716
Upper	3.39	23.0	56.11	153.59	8.58	1.01	2.71	228	303	327	438	653	723
Lower	2.40	18.7	38.51	103.23	5.67	0.35	0.88	135	222	256	385	526	710
Midale													
Average	2.32	29.7	15.58	29.39	5.78	1.57	2.44	112	181	214	361	524	713
Upper	2.69	31.1	21.06	39.64	6.65	1.95	3.16	146	212	246	399	589	744
Lower	1.94	28.2	10.09	19.14	4.90	1.18	1.73	78	151	182	322	459	683
Mixed Sour Blend													
Average	1.60	31.6	19.57	42.11	5.22	3.76	4.49	101	179	220	379	548	714
Upper	2.03	36.0	29.19	61.38	6.45	5.69	7.97	142	235	273	420	607	721
Lower	1.17	27.3	9.96	22.84	3.98	1.83	1.02	60	123	167	338	490	707
Peace River Heavy													
Average	4.61	20.9	52.77	153.48	8.98	0.78	6.62	119	225	265	434	622	720
Upper	5.59	22.5	69.20	208.16	10.68	1.20	10.01	172	293	337	512	724	736
Lower	3.62	19.3	36.34	98.81	7.29	0.37	3.24	66	157	193	356	519	704
Seal Heavy													
Average	4.61	20.6	58.67	164.73	9.39	1.71	4.56	119	231	275	467	666	717
Upper	4.92	22.0	70.35	197.81	10.34	2.68	5.87	150	263	305	505	716	720
Lower	4.29	19.3	47.00	131.65	8.44	0.74	3.25	88	198	245	429	616	714
SHE													
Average	1.70	34.9	17.64	48.13	3.96	1.97	4.58	98	150	178	324	490	711
Upper	2.33	38.8	31.41	84.21	5.62	3.54	8.46	130	191	223	363	555	723
Lower	1.06	31.0	3.87	12.04	2.30	0.39	0.70	66	108	132	286	425	698
SLE													
Average	0.97	38.0	8.31	19.21	2.61	2.66	4.39	87	132	157	296	451	706
Upper	1.27	41.2	17.17	40.10	3.81	4.72	6.39	107	152	181	327	492	722
Lower	0.68	34.8	-0.54	0.00	1.41	0.59	2.38	68	112	133	264	411	690

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Smiley-Coleville													
Average	2.95	19.9	34.30	93.49	9.37	1.03	3.79	155	260	296	448	621	722
Upper	3.11	21.3	40.68	107.04	9.96	1.53	4.69	199	294	328	487	693	739
Lower	2.79	18.5	27.91	79.94	8.78	0.52	2.88	111	227	264	410	549	705
Suncor Synthetic H													
Average	3.03	19.9	3.51	8.92	0.70	0.65	1.54	248	323	339	394	445	673
Upper	3.14	20.5	7.09	17.29	1.41	0.97	2.15	281	333	348	403	455	738
Lower	2.93	19.2	-0.07	0.55	0.00	0.32	0.93	215	314	330	384	434	608
Surmont Heavy Blend													
Average	2.91	19.7	49.57	134.81	7.15	0.79	1.31	197	267	293	408	589	716
Upper	3.12	20.8	56.26	153.78	7.85	1.03	1.73	217	283	310	426	620	722
Lower	2.70	18.6	42.89	115.84	6.44	0.55	0.89	177	250	276	389	558	711
Wabasca Heavy													
Average	3.78	20.9	49.11	132.81	8.53	1.73	2.64	145	237	275	439	622	722
Upper	4.28	22.8	59.83	157.34	9.26	2.97	3.61	184	280	314	488	700	740
Lower	3.28	19.0	38.38	108.28	7.79	0.50	1.67	106	194	235	389	544	703
Western Canadian Blend													
Average	3.04	20.7	44.39	92.59	8.68	0.76	3.46	167	263	296	446	625	721
Upper	3.27	22.2	55.09	114.86	9.39	1.02	4.91	214	289	319	480	692	743
Lower	2.81	19.1	33.69	70.32	7.97	0.50	2.01	121	237	273	412	558	699
Western Canadian Select													
Average	3.34	20.6	53.79	130.03	9.37	2.04	3.95	157	267	303	452	634	717
Upper	3.67	22.2	65.94	156.03	10.16	2.78	5.11	227	310	340	499	708	722
Lower	3.01	19.0	41.65	104.04	8.59	1.30	2.79	87	225	266	406	559	712