

Reference: HEBRN23Y
Crude: Hebron



Crude Summary Report

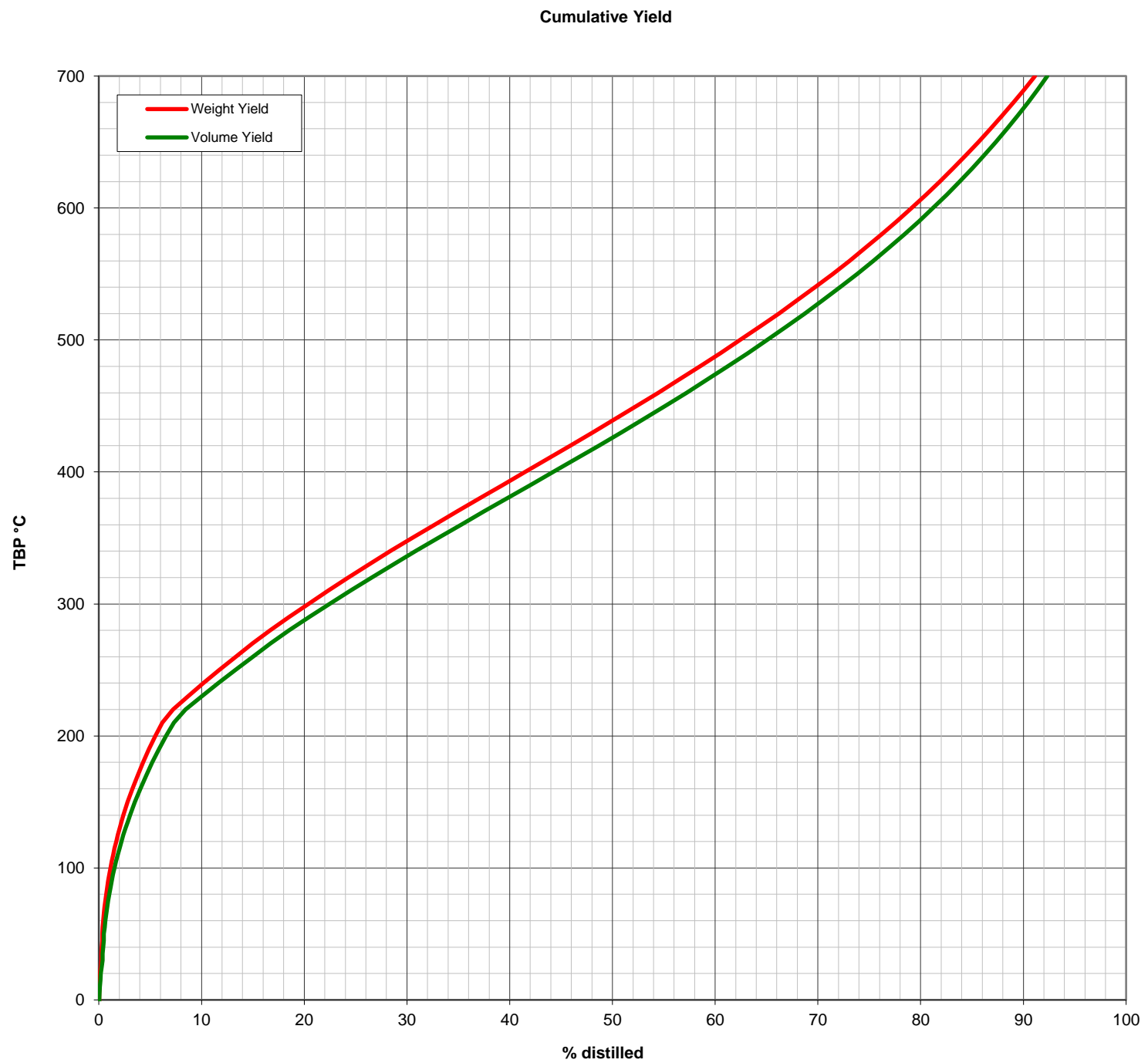
General Information		Molecules (%wt on crude)				Whole Crude Properties			
Reference:	HEBRN23Y	methane + ethane	0.00	Density @ 15°C (g/cc)	0.9262				
Name:	Hebron	propane	0.00	API Gravity	21.2				
Origin:	Newfoundland	isobutane	0.02	Total Sulfur (% wt)	0.79				
Assay Date:	6/23/2023	n-butane	0.04	Pour Point (°C)	-3				
Comments:		isopentane	0.07	Viscosity @ 20°C (cSt)	268.8				
		n-pentane	0.04	Viscosity @ 40°C (cSt)	73.9				
		cyclopentane	0.01	Nickel (ppm)	5.4				
		C6 paraffins	0.08	Vanadium (ppm)	3.7				
		C6 naphthenes	0.08	Total Nitrogen (ppm)	2377				
		benzene	0.00	Total Acid Number (mgKOH/g)	1.14				
		C7 paraffins	0.12	Mercaptan Sulfur (ppm)	13.1				
		C7 naphthenes	0.32	Hydrogen Sulfide (ppm)	0.0				
		toluene	0.01	Reid Vapor Pressure (kPa)	5.1				

Cut Data	IBP	Atmospheric Cuts									Vacuum Cuts			
		C5	65	100	150	200	250	300	350	370	370	450	500	550
Start (°C)														
End (°C)	FBP	65	100	150	200	250	300	350	370	FBP	450	500	550	FBP
Yield (% wt)		0.4	0.6	1.7	2.7	6.2	8.6	10.1	4.4	65.1	17.5	10.1	9.0	28.6
Yield (% vol)		0.6	0.8	2.0	3.0	6.8	9.1	10.6	4.5	62.5	17.6	9.9	8.7	26.2
Cumulative Yield (% wt)		0.1	0.5	1.1	2.8	5.5	11.7	20.4	30.5	34.9	34.9	52.4	62.4	71.4
Volume Average B.P. (°C)	437	40.5	84	127	176	228	276	325	360	540	410	475	524	657
Density @ 15°C (g/cc)	0.9262	0.6494	0.7339	0.7777	0.8215	0.8563	0.8757	0.8844	0.9035	0.9647	0.9183	0.9400	0.9515	1.0096
API Gravity	21.2	86.4	61.3	50.4	40.7	33.7	30.0	28.4	25.0	15.1	22.5	19.0	17.1	8.6
UOPK	11.71			11.52	11.34	11.28	11.37	11.59	11.56	11.76	11.66	11.74	11.85	11.75
Molecular Weight (g/mol)				110	135	167	203	249	281	544	336	432	545	1025
Total Sulfur (% wt)	0.8	0.001	0.002	0.004	0.011	0.039	0.133	0.336	0.483	1.11	0.60	0.75	0.94	1.61
Mercaptan Sulfur (ppm)	13.1													
Total Nitrogen (ppm)	2377					1	7	72	213	3622	562	1204	2345	6751
Basic Nitrogen (ppm)	707					1	6	38	94	1073	234	493	740	1896
Total Acid Number (mgKOH/g)	1.14	0.01	0.04	0.20	0.39	0.38	0.49	0.88	1.23	1.41	1.61	1.89	1.88	0.98
Viscosity @ 20°C (cSt)	269				1.45									
Viscosity @ 40°C (cSt)	73.9				1.09	1.78	3.24	7.27	14.7					
Viscosity @ 50°C (cSt)	44.4					1.53	2.65	5.51	10.4	1590	30.6	139	410	
Viscosity @ 60°C (cSt)										716	20.3	79.4	212	
Viscosity @ 100°C (cSt)										72.7	6.18	15.9	31.8	5952
Viscosity @ 130°C (cSt)														755
Viscosity @ 150°C (cSt)														268
RON (Clear)		81.7	72.9	62.6	67.6									
MON (Clear)		79.9	75.1	63.8	53.2									
Paraffins (% wt)	12.9	94.6	38.8	21.0	15.1									
Naphthenes (%wt)	32.9	5.4	60.1	74.8	69.5									
Aromatics (% wt)	54.1	0.0	1.1	4.2	15.4									
Pour Point (°C)	-3					-75	-39	-9	6	27	25	42	50	62
Cloud Point (°C)						-74	-38	-7						
Freeze Point (°C)					-104	-66	-30							
Smoke Point (mm)					21	16	12							
Cetane Index (D4737A)					26	32	39	49	51					
Naphthalenes (% vol)					1.0	8.8	11.7	12.9						
Aniline Point (°C)				43.7	42.3	46.0	55.7	66.5	71.3		78.0	85.0	86.8	
Hydrogen (% wt)	12.4	16.5	15.0	14.5	13.7	12.7	12.8	12.7	12.5		12.3	12.2	12.3	
Total Wax (% wt)	4.0									3.5	8.9	3.6	1.4	0.9
C7 Asphaltenes (% wt)	1.5									2.3	0.0	0.0	5.2	
Micro Carbon Residue (% wt)	4.9									7.5	0.1	1.2	16.8	
Vanadium (ppm)	3.7									5.7	0.0	0.0	13.0	
Nickel (ppm)	5.4									8.3	0.0	0.0	18.8	
Iron (ppm)	1.8									2.8	0.0	0.0	6.3	
Sodium (ppm)	1.2													
Mercury (ppb)	1.0													
Arsenic (ppb)	30													

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Yield Distribution



Cumulative Volume % Distilled at 10 Degree C (TBP) Intervals

	0	10	20	30	40	50	60	70	80	90
0				0.4	0.4	0.5	0.6	0.8	1.0	1.3
100	1.5	1.8	2.2	2.6	3.0	3.5	4.0	4.6	5.2	5.9
200	6.5	7.3	8.4	10.0	11.6	13.3	15.0	16.7	18.5	20.4
300	22.4	24.5	26.6	28.7	30.8	33.0	35.2	37.5	39.7	42.0
400	44.2	46.5	48.7	50.9	53.0	55.1	57.2	59.2	61.2	63.2
500	65.1	66.9	68.7	70.5	72.2	73.8	75.4	76.9	78.4	79.8