

Reference: **UNGLD21B**
Crude: **Unity Gold**

Crude Summary Report

General Information		Molecules (%wt on crude)									Whole Crude Properties			
Reference:	UNGLD21B	methane + ethane	0.12							Density @ 59 F (g/cc)	0.8573			
Name:	Unity Gold	propane	0.35							API Gravity	33.5			
Traded Crude:	Unity Gold	isobutane	0.23							Total Sulphur (% wt)	0.42			
Origin:	Guyana	n-butane	0.92							Pour Point (°F)	35.0			
Sample Date:	-	isopentane	0.72							Viscosity @ 68 F (cSt)	14.96			
Assay Date:	26-Aug-21	n-pentane	0.96							Viscosity @ 104 F (cSt)	6.80			
Issue Date:	26-Aug-21	cyclopentane	0.15							Nickel (ppm)	13.4			
Comments:	Blended assay from pre-production well samples	C ₆ paraffins	1.77							Vanadium (ppm)	19.1			
		C ₆ naphthenes	1.21							Total Nitrogen (ppm)	1892			
		benzene	0.09							Total Acid Number (mgKOH/g)	0.22			
		C ₇ paraffins	1.64							Salt content, ptb	20.0			
		C ₇ naphthenes	2.37							Hydrogen Sulphide (ppm)	-			
		toluene	0.36							Reid Vapour Pressure (psi)	6.8			

Cut Data		Atmospheric Cuts									Vacuum Cuts				
Start (°F)	IBP	C5	149	212	302	392	482	572	662	698	698	842	932	1022	
End (°F)	FBP	149	212	302	392	482	572	662	698	FBP	842	932	1022	FBP	
Yield (% wt)		3.0	4.5	8.5	8.1	8.4	9.0	9.1	3.6	44.4	13.8	7.6	6.4	16.6	
Yield (% vol)		4.0	5.3	9.6	8.7	8.7	9.1	9.0	3.5	40.1	13.1	7.1	5.9	14.1	
Cumulative Yield (% wt)		1.2	4.2	8.8	17.3	25.4	33.8	42.8	52.0	55.6	55.6	69.4	77.0	83.4	
Volume Average B.P. (°F)	623	107	182	258	346	438	527	617	680	969	768	886	975	1195	
Density @ 59°F (g/cc)	0.8573	0.647	0.728	0.759	0.793	0.824	0.848	0.864	0.885	0.947	0.900	0.923	0.935	1.007	
API Gravity	33.5	87.2	62.9	55.0	46.8	40.2	35.3	32.2	28.3	17.8	25.6	21.7	19.7	8.9	
UOPK	12.0			11.8	11.7	11.7	11.7	11.9	11.8	11.9	11.9	12.0	12.1	11.7	
Molecular Weight (g/mol)				110	137	170	208	254	288	518	345	442	559	976	
Total Sulphur (% wt)	0.42	0.000	0.000	0.002	0.019	0.065	0.17	0.33	0.41	0.79	0.47	0.58	0.73	1.18	
Mercaptan Sulphur (ppm)	5.7	0.0	0.0	0.1	0.8	6.5	13.0								
Total Nitrogen (ppm)	1892					9	71	341	685	4117	1291	2189	2891	7828	
Basic Nitrogen (ppm)	533					6.4	45.3	125	222	1144.8	404	604	781	2150	
Total Acid Number (mgKOH/g)	0.22	0.01	0.03	0.08	0.13	0.17	0.21	0.26	0.29	0.29	0.32	0.33	0.32	0.24	
Viscosity @ 68 F (cSt)	15.0				1.36										
Viscosity @ 104 F (cSt)	6.80				1.04	1.64	2.97	6.34	12.1						
Viscosity @ 122 F (cSt)	4.98					1.42	2.46	4.91	8.78	530	22.6	97.5	374		
Viscosity @ 140 F (cSt)										271	15.7	58.6	197		
Viscosity @ 212 F (cSt)										38.8	5.33	13.4	31.2	2750	
Viscosity @ 266 F (cSt)														420	
RON (Clear)	58.4	76.2	52.3	58.6	33.5										
MON (Clear)	63.5	74.4	63.2	56.8	32.9										
Paraffins (% wt)	28.7	94.1	50.2	31.5	44.5										
Naphthenes (%wt)	36.5	5.4	48.1	57.0	41.1										
Aromatics (% wt)	34.8	0.0	1.8	11.5	14.4										
Pour Point (°F)	35						-59	-14	30	54	104	85	113	128	126
Cloud Point (°F)								-56	-8	34					
Freeze Point (°F)								-74	-42	-3					
Smoke Point (mm)								25	22	18					
Cetane Index								36	43	50	58	60			
Naphthalenes (% vol)								0.1027	3.1985	7.0311	8.1648				
Aniline Point (°F)				123.6	131.7	145.1	158.9	171.6	178.0		192.5	206.1	204.6		
Hydrogen (% wt)		16.5	15.2	14.2	14.2	13.6	13.5	13.2	12.9		12.7	12.6	12.6		
C ₇ Asphaltenes (% wt)	0.5									1.2		0.0	0.0	3.2	
Micro Carbon Residue (% wt)	3.3									7.4		0.2	2.0	18.9	
Vanadium (ppm)	19.1									43.0		0.0	0.0	115	
Nickel (ppm)	13.4									30.3		0.0	0.0	81	
Iron (ppm)	9.2									20.6		0.0	0.0	55	