

Reference: GNDGO20Y  
Crude: Gindungo



## Crude Summary Report

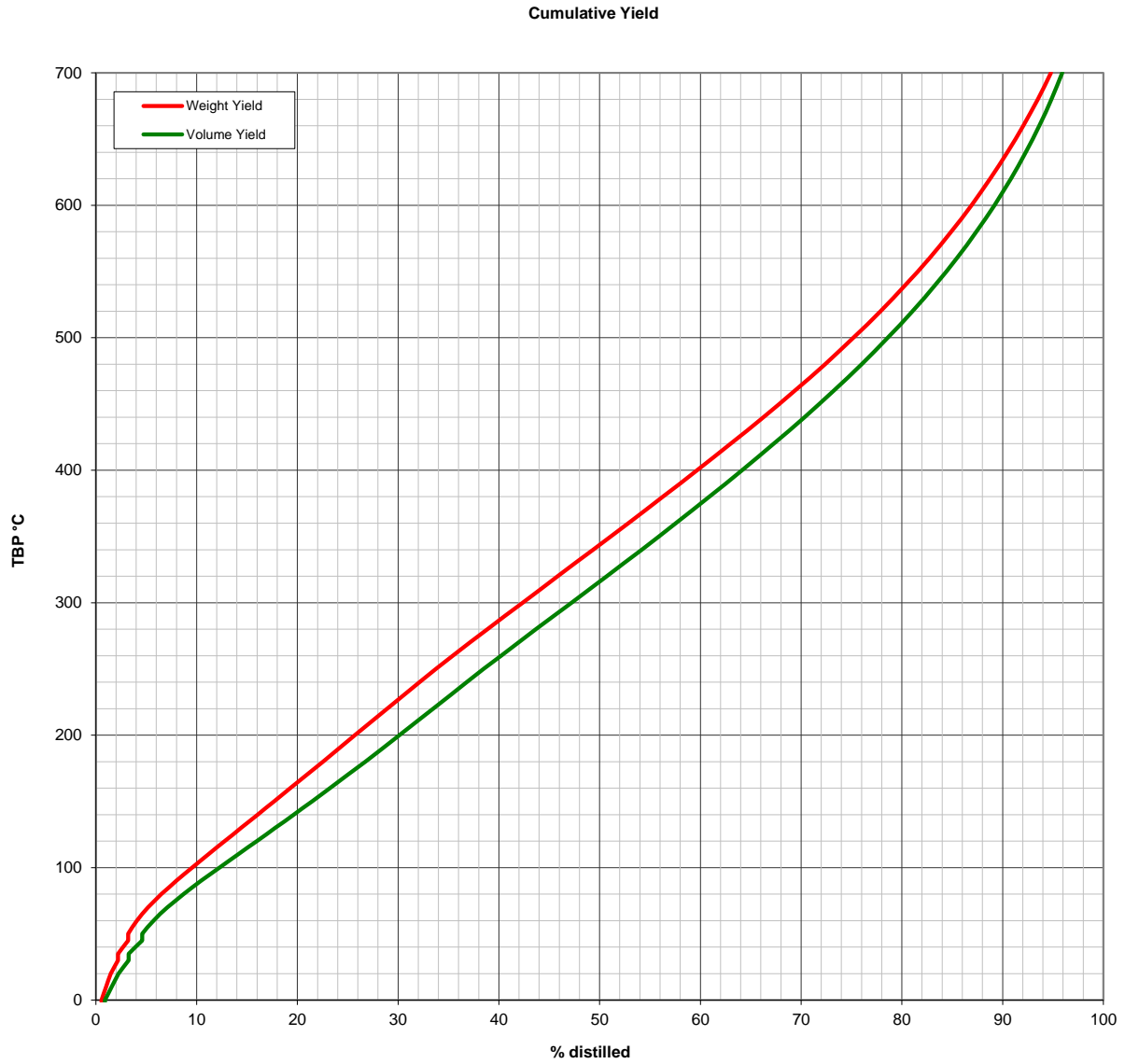
General Information		Molecules (%wt on crude)				Whole Crude Properties			
Reference:	GNDGO20Y	methane + ethane	0.00	Density @ 15°C (g/cc)	0.8614				
Name:	Gindungo	propane	0.29	<b>API Gravity</b>	<b>32.7</b>				
Origin:	Angola	isobutane	0.24	Total Sulfur (% wt)	0.52				
Assay Date:	8/14/2020	n-butane	0.87	Pour Point (°C)	-21				
Comments:		isopentane	0.70	Viscosity @ 20°C (cSt)	13.8				
		n-pentane	0.96	Viscosity @ 40°C (cSt)	8.4				
		cyclopentane	0.14	Nickel (ppm)	18.4				
		C6 paraffins	2.00	Vanadium (ppm)	18.8				
		C6 naphthenes	1.12	Total Nitrogen (ppm)	1793				
		benzene	0.12	Total Acid Number (mgKOH/g)	0.60				
		C7 paraffins	1.75	Mercaptan Sulfur (ppm)	12.9				
		C7 naphthenes	1.90	Hydrogen Sulfide (ppm)	0.0				
		toluene	0.34	Reid Vapor Pressure (kPa)	46.8				

Cut Data	IBP	Atmospheric Cuts									Vacuum Cuts			
		C5	65	100	150	200	250	300	350	370	370	450	500	550
Start (°C)	FBP	65	100	150	200	250	300	350	370	FBP	450	500	550	FBP
End (°C)														
Yield (% wt)		3.4	5.0	8.1	8.0	8.0	8.6	8.7	3.5	45.4	13.3	7.4	6.4	18.4
Yield (% vol)		4.5	5.9	9.2	8.7	8.4	8.7	8.7	3.4	40.8	12.6	6.8	5.8	15.6
Cumulative Yield (% wt)		1.2	4.6	9.6	17.7	25.7	33.7	42.4	51.1	54.6	54.6	67.8	75.2	81.6
Volume Average B.P. (°C)	332	42.1	83	125	175	225	275	325	360	529	409	474	524	651
Density @ 15°C (g/cc)	0.8614	0.6420	0.7226	0.7579	0.7933	0.8230	0.8479	0.8631	0.8859	0.9553	0.9052	0.9266	0.9420	1.0133
API Gravity	32.7	88.9	64.3	55.2	46.8	40.4	35.3	32.4	28.1	16.5	24.7	21.1	18.6	8.1
UOPK	11.94			11.80	11.73	11.71	11.74	11.87	11.78	11.82	11.82	11.91	11.97	11.69
Molecular Weight (g/mol)				110	137	170	208	255	288	531	342	440	553	993
Total Sulfur (% wt)	0.52	0.001	0.003	0.010	0.031	0.077	0.194	0.393	0.51	0.97	0.61	0.75	0.90	1.36
Mercaptan Sulfur (ppm)	12.9	1.5	2.4	3.1	3.7	2.7	1.5							
Total Nitrogen (ppm)	1793					6	36	162	350	3882	867	1776	2484	7380
Basic Nitrogen (ppm)	535					6	27	86	160	1142	313	538	782	2105
Total Acid Number (mgKOH/g)	0.60	0.12	0.36	0.74	1.06	1.04	0.92	0.80	0.71	0.38	0.60	0.44	0.32	0.21
Viscosity @ 20°C (cSt)	13.8				1.39									
Viscosity @ 40°C (cSt)	8.37				1.06	1.68	3.08	6.65	12.9					
Viscosity @ 50°C (cSt)	6.77					1.45	2.54	5.13	9.33	786	24.5	101	334	
Viscosity @ 60°C (cSt)										388	16.9	60.7	180	
Viscosity @ 100°C (cSt)										50.5	5.61	13.8	29.8	4251
Viscosity @ 130°C (cSt)														606
Viscosity @ 150°C (cSt)														227
RON (Clear)		75.9	49.4	57.8	40.4									
MON (Clear)		74.1	61.4	56.6	38.1									
Paraffins (% wt)	29.2	95.1	54.9	35.1	44.0									
Naphthenes (%wt)	32.8	4.9	42.7	52.5	38.5									
Aromatics (% wt)	38.0	0.0	2.4	12.4	17.5									
Pour Point (°C)	-21					-51	-25	-2	10	49	26	40	47	75
Cloud Point (°C)						-48	-23	-1						
Freeze Point (°C)						-70	-43	-17						
Smoke Point (mm)						24	21	17						
Cetane Index (D4737A)						37	44	50	59	59				
Naphthalenes (% vol)						0.1	3.2	8.0	9.9					
Aniline Point (°C)				48.3	52.3	60.1	68.9	75.5	77.5		82.4	89.1	91.4	
Hydrogen (% wt)	13.3	16.5	15.2	14.2	14.1	13.6	13.4	13.2	12.9		12.6	12.5	12.3	
Total Wax (% wt)	11.5										18.0	20.5	18.1	2.2
C7 Asphaltenes (% wt)	1.3									2.9	0.0	0.0	0.0	7.2
Micro Carbon Residue (% wt)	3.8									8.4	0.3	2.0	19.9	
Vanadium (ppm)	18.8									41.4	0.0	0.0	102.0	
Nickel (ppm)	18.4									40.5	0.0	0.0	99.8	
Iron (ppm)	16.4									36.1	0.0	0.0	89.1	
Sodium (ppm)	0.2													
Mercury (ppb)	1.0													
Arsenic (ppb)	38													

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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				3.2	3.9	4.6	5.7	7.1	8.7	10.4
100	12.3	14.1	16.0	17.8	19.6	21.5	23.2	25.0	26.7	28.4
200	30.1	31.8	33.5	35.1	36.8	38.5	40.2	41.9	43.7	45.4
300	47.2	49.0	50.7	52.5	54.2	55.9	57.6	59.2	60.9	62.5
400	64.1	65.7	67.3	68.8	70.3	71.8	73.2	74.6	76.0	77.3
500	78.6	79.9	81.1	82.2	83.3	84.4	85.5	86.4	87.4	88.3