

Reference: PAYRA24Z
Crude: Payara Gold



Crude Summary Report

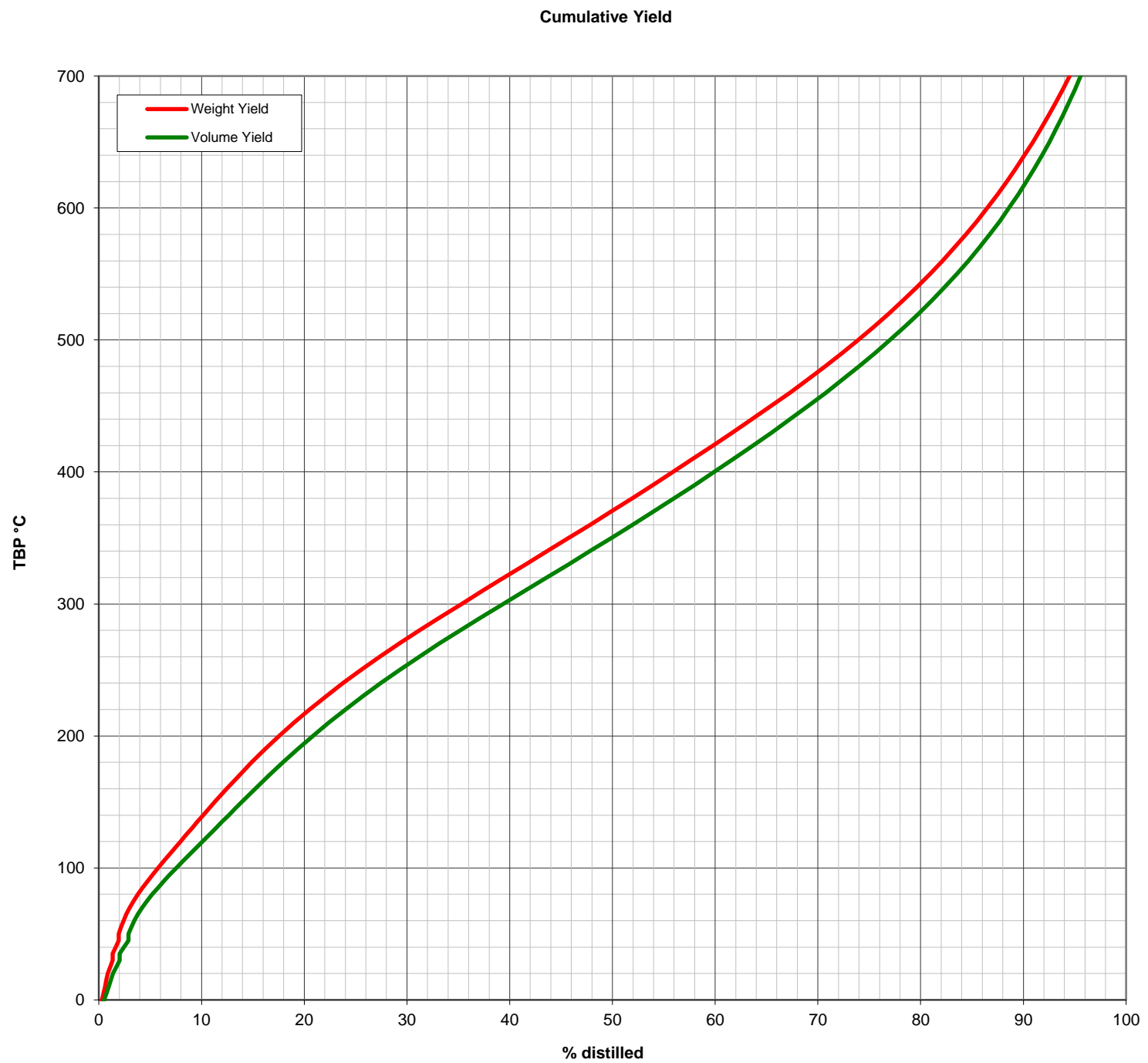
General Information		Molecules (%wt on crude)									Whole Crude Properties			
Reference:	PAYRA24Z	methane + ethane	0.01								Density @ 15°C (g/cc)	0.8812		
Name:	Payara Gold	propane	0.16								API Gravity	29.0		
Origin:	Guyana	isobutane	0.12								Total Sulfur (% wt)	0.60		
Assay Date:	3/28/2024	n-butane	0.50								Pour Point (°C)	-24		
Comments:		isopentane	0.44								Viscosity @ 20°C (cSt)	23.3		
Sample Date:	12/21/2023	n-pentane	0.58								Viscosity @ 40°C (cSt)	11.1		
		cyclopentane	0.10								Nickel (ppm)	14.4		
		C6 paraffins	1.11								Vanadium (ppm)	7.1		
		C6 naphthenes	0.74								Total Nitrogen (ppm)	2113		
		benzene	0.05								Total Acid Number (mgKOH/g)	0.71		
		C7 paraffins	1.05								Mercaptan Sulfur (ppm)	10.0		
		C7 naphthenes	1.37								Hydrogen Sulfide (ppm)	0.0		
		toluene	0.20								Reid Vapor Pressure (kPa)	33.5		
											Salt (ptb)	20.0		

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)		1.9	3.1	5.5	6.3	8.0	9.8	10.4	4.2	50.1	15.5	8.5	7.0	19.1
Yield (% vol)		2.7	3.7	6.4	6.9	8.4	10.1	10.5	4.1	46.0	15.1	8.0	6.5	16.5
Cumulative Yield (% wt)		0.7	2.7	5.8	11.3	17.6	25.5	35.3	45.7	49.9	49.9	65.4	73.9	80.9
Volume Average B.P. (°C)	361	40.9	84	125	176	226	276	325	360	523	409	474	524	652
Density @ 15°C (g/cc)	0.8812	0.6430	0.7288	0.7600	0.7946	0.8278	0.8527	0.8686	0.8903	0.9562	0.9065	0.9346	0.9425	1.0175
API Gravity	29.0	88.6	62.6	54.6	46.5	39.4	34.4	31.3	27.4	16.4	24.5	19.8	18.6	7.5
UOPK	11.85			11.77	11.72	11.65	11.67	11.79	11.73	11.79	11.81	11.81	11.96	11.64
Molecular Weight (g/mol)				110	138	170	208	253	286	516	342	434	552	987
Total Sulfur (% wt)	0.6	0.000	0.000	0.003	0.031	0.106	0.259	0.438	0.53	0.98	0.61	0.72	0.90	1.44
Total Nitrogen (ppm)	2113					9	74	292	574	4093	1242	2385	3332	7450
Basic Nitrogen (ppm)	586					5	54	133	231	1112	418	552	816	2033
Total Acid Number (mgKOH/g)	0.71	0.01	0.06	0.18	0.34	0.54	0.78	1.01	1.12	0.82	1.16	1.05	0.86	0.43
Viscosity @ 20°C (cSt)	23.3				1.42									
Viscosity @ 40°C (cSt)	11.1				1.08	1.69	3.05	6.45	12.4					
Viscosity @ 50°C (cSt)	8.18					1.46	2.52	4.98	8.96	680	24.4	119	439	
Viscosity @ 60°C (cSt)										337	16.7	69.8	226	
Viscosity @ 100°C (cSt)										44.6	5.52	14.9	33.6	3924
Viscosity @ 130°C (cSt)														555
Viscosity @ 150°C (cSt)														207
RON (Clear)		76.1	51.8	60.5	40.7									
MON (Clear)		74.5	63.3	59.2	37.2									
Paraffins (% wt)	24.9	94.2	52.4	31.2	39.9									
Naphthenes (%wt)	35.1	5.8	46.1	57.5	44.9									
Aromatics (% wt)	40.0	0.0	1.6	11.3	15.3									
Pour Point (°C)	-24					-52	-25	-1	11	22	25	38	47	30
Cloud Point (°C)						-50	-22	1						
Freeze Point (°C)						-69	-45	-19						
Smoke Point (mm)						25	21	17						
Cetane Index (D4737A)						37	42	48	56	57				
Naphthalenes (% vol)						0.1	3.0	6.9	8.0					
Aniline Point (°C)				54.6	57.3	61.9	67.9	74.1	77.4		83.2	89.6	92.2	
Hydrogen (% wt)	13.1	16.5	15.2	14.2	14.1	13.6	13.3	13.1	12.8		12.5	12.3	12.6	
Total Wax (% wt)	11.8									8.2	15.5	9.2	6.3	2.6
C7 Asphaltenes (% wt)	0.2									0.3	0.0	0.0	0.8	
Micro Carbon Residue (% wt)	2.6									5.3	0.1	1.3	13.3	
Vanadium (ppm)	7.1									14.2	0.0	0.0	37.3	
Nickel (ppm)	14.4									28.8	0.0	0.0	75.7	
Iron (ppm)	0.6									1.1	0.0	0.0	2.9	
Sodium (ppm)	4.5													
Mercury (ppb)	1.0													
Arsenic (ppb)	7													

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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				2.0	2.5	2.9	3.5	4.2	5.2	6.3
100	7.5	8.8	10.1	11.4	12.6	13.9	15.2	16.6	17.9	19.3
200	20.8	22.4	24.0	25.7	27.4	29.3	31.2	33.2	35.2	37.3
300	39.4	41.5	43.6	45.7	47.8	49.9	52.0	54.0	56.0	58.0
400	59.9	61.8	63.7	65.5	67.3	69.0	70.7	72.4	74.0	75.5
500	77.0	78.4	79.8	81.1	82.3	83.5	84.6	85.7	86.7	87.7