

Reference: AZRB223Y
Crude: Azeri BTC



Crude Summary Report

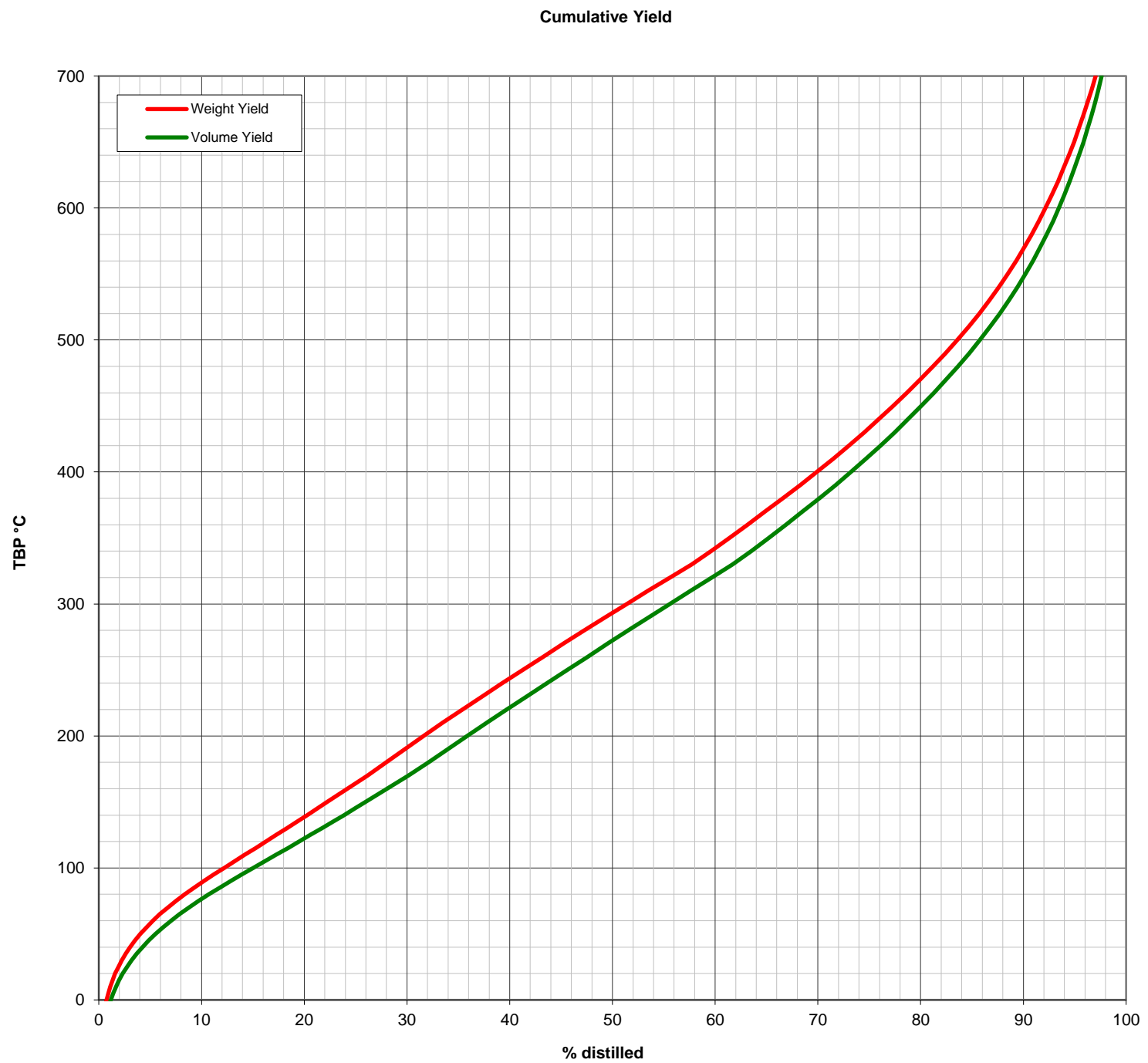
General Information		Molecules (%wt on crude)			Whole Crude Properties		
Reference:	AZRB223Y	methane + ethane	0.00	Density @ 15°C (g/cc)	0.8320		
Name:	Azeri BTC	propane	0.27	API Gravity	38.5		
Origin:	Azerbaijan	isobutane	0.22	Total Sulfur (% wt)	0.16		
Assay Date:	6/23/2023	n-butane	0.69	Pour Point (°C)	-9		
Comments:		isopentane	0.59	Viscosity @ 20°C (cSt)	5.4		
		n-pentane	0.87	Viscosity @ 40°C (cSt)	3.3		
		cyclopentane	0.13	Nickel (ppm)	2.9		
		C6 paraffins	2.27	Vanadium (ppm)	0.3		
		C6 naphthenes	1.16	Total Nitrogen (ppm)	1000		
		benzene	0.18	Total Acid Number (mgKOH/g)	0.42		
		C7 paraffins	2.37	Mercaptan Sulfur (ppm)	14.0		
		C7 naphthenes	2.13	Hydrogen Sulfide (ppm)	0.0		
		toluene	0.62	Reid Vapor Pressure (kPa)	46.0		

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)		4.6	6.2	10.0	9.4	9.7	10.1	10.0	3.5	35.1	12.4	6.3	4.9	11.5
Yield (% vol)		5.9	7.2	10.9	9.9	9.8	10.0	9.6	3.3	31.5	11.5	5.7	4.4	9.8
Cumulative Yield (% wt)		1.3	6.0	12.2	22.2	31.6	41.3	51.4	61.4	64.9	64.9	77.3	83.6	88.5
Volume Average B.P. (°C)	292	43.8	83	125	174	225	275	324	360	511	408	474	524	647
Density @ 15°C (g/cc)	0.8320	0.6504	0.7228	0.7620	0.7861	0.8214	0.8422	0.8603	0.8762	0.9258	0.8949	0.9078	0.9204	0.9750
API Gravity	38.5	86.0	64.2	54.1	48.4	40.7	36.4	32.9	29.9	21.3	26.5	24.3	22.2	13.5
UOPK	12.09			11.74	11.83	11.74	11.82	11.90	11.91	12.11	11.96	12.15	12.25	12.13
Molecular Weight (g/mol)				109	138	170	210	255	291	504	346	452	571	1023
Total Sulfur (% wt)	0.16	0.003	0.005	0.010	0.019	0.039	0.081	0.169	0.222	0.342	0.211	0.257	0.335	0.53
Mercaptan Sulfur (ppm)	14.0	17.2	21.1	17.1	20.1	27.1	21.4							
Total Nitrogen (ppm)	1000					3	43	224	479	2722	740	1337	2353	5773
Basic Nitrogen (ppm)	284					2	20	80	147	765	237	430	682	1552
Total Acid Number (mgKOH/g)	0.42	0.00	0.03	0.10	0.25	0.44	0.60	0.73	0.80	0.52	0.78	0.64	0.48	0.18
Viscosity @ 20°C (cSt)	5.39				1.42									
Viscosity @ 40°C (cSt)	3.35				1.07	1.68	3.03	6.19	11.4					
Viscosity @ 50°C (cSt)	2.74					1.45	2.50	4.80	8.35	167				
Viscosity @ 60°C (cSt)										98.1	18.7	67.9	209	
Viscosity @ 100°C (cSt)										20.6	13.3	43.1	120	
Viscosity @ 130°C (cSt)											4.85	11.4	23.8	454
Viscosity @ 150°C (cSt)														114
RON (Clear)		76.1	40.3	59.6	32.9									
MON (Clear)		74.6	57.1	57.4	31.4									
Paraffins (% wt)	31.7	95.3	62.6	38.1	49.9									
Naphthenes (%wt)	39.1	4.7	34.1	44.9	34.5									
Aromatics (% wt)	29.2	0.0	3.3	17.1	15.5									
Pour Point (°C)	-9					-50	-27	-3	11	18	25	38	47	27
Cloud Point (°C)						-48	-25	0						
Freeze Point (°C)						-64	-44	-21						
Smoke Point (mm)						27	23	19						
Cetane Index (D4737A)						40	44	53	60	64				
Naphthalenes (% vol)						0.2	2.3	4.3	4.8					
Aniline Point (°C)				51.0	55.4	63.6	71.5	78.0	82.8		90.1	98.8	104.0	
Hydrogen (% wt)	13.6	16.5	15.3	14.0	14.2	13.7	13.6	13.5	13.2		13.0	13.0	12.9	
Total Wax (% wt)	10.2									8.0	12.1	8.5	7.9	3.4
C7 Asphaltenes (% wt)	0.0									0.1	0.0	0.0	0.2	
Micro Carbon Residue (% wt)	1.4									3.9	0.0	0.7	11.6	
Vanadium (ppm)	0.3									0.7	0.0	0.0	2.2	
Nickel (ppm)	2.9									8.2	0.0	0.0	25.1	
Iron (ppm)	2.7									7.8	0.0	0.0	23.6	
Sodium (ppm)	6.2													
Mercury (ppb)	1.0													
Arsenic (ppb)	23													

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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	4.2	5.5	7.0	8.8	10.7	12.8
100	15.0	17.3	19.5	21.7	23.9	26.0	28.1	30.1	32.1	34.0
200	35.9	37.8	39.7	41.7	43.6	45.6	47.6	49.6	51.6	53.6
300	55.6	57.6	59.7	61.7	63.5	65.2	66.9	68.5	70.1	71.7
400	73.2	74.7	76.1	77.5	78.8	80.1	81.3	82.5	83.6	84.7
500	85.8	86.8	87.7	88.6	89.4	90.2	90.9	91.6	92.3	92.9