

Info Letter N° 01/2025 Crude Oil Distillation

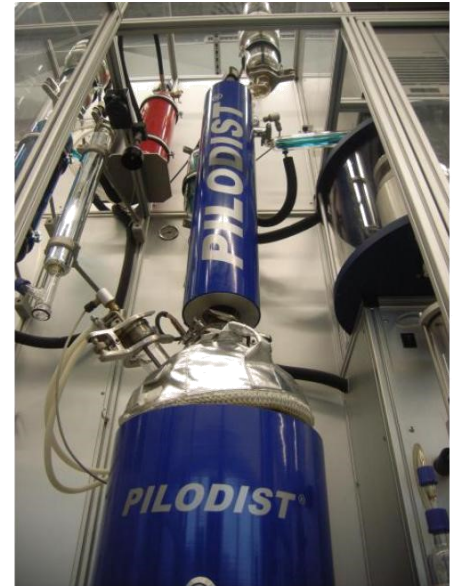
We offer the complete crude oil distillation process:

According to ASTM D2892

- Standard test method for Distillation of Crude Petroleum (15-theoretical Plate Column) -

The distillation includes:

- Batch size: 6 L or 10 L
- Water removal (If water content is > 0,3 %)
- Debutanisation (condensate C3-/C4-Hydrocarbons at – 45 °C)
- Distillation range 15 °C to 450 °C
- Pressure: ambient pressure down to 2 mmHg
- Fraction collector (max. 20 Cuts)
- Distillation curve (%(v/v) and %(m/m)), mass balance and density measurement
- Analytic of each cut possible
- Filling, packing and shipping the Cuts



Residue Distillation gemäß ASTM D 5236

- Distillation of Heavy Hydrocarbon Mixtures (Vacuum Potstill Method) -

The distillation includes:

- Batch size: 4 L, 6 L or 10 L (Minimum amount: 2 L)
- Distillation range: 370 °C – 560 °C
- Pressure: ambient pressure down to 0,1 mmHg
- Fraction collector (max. 20 Cuts)
- Mass balance and density measurement
- Analytic of each cut possible
- Filling, packing and shipping the Cuts





Report:

Gastrap (<15 °C)	Hydrogen content	DIN EN 15984	<0,01	% (m/m)	
	Oxygen content		<0,01		
	Carbon content		82,06		g/100g
	Heating value(Hu,p)		4582,16		kJ/100g
	Nitrogen content		<0,01	% (m/m)	
	Carbonmonoxid		<0,01		
	Carbondioxid		0,31		
	Hydrogen sulfide		<0,01		
	Methane		0,19		
	Ethane		2,64		
	Ethene		<0,01		
	Acetylen (Ethine)		<0,01		
	Propane		38,48		
	Propene		<0,01		
	Propine		<0,01		
	Propadiene		<0,01		
	iso-Butane		23,05		
	n-Butane		31,60		
	trans-2-Butene		<0,01		
	cis-2-Butene		<0,014		
	iso-Pentane (2-Methyl-butane)		2,13		
	n-Pentane		1,09		
	1-Butene		<0,01		
	iso-Butene		<0,01		
	1-Pentene		<0,01		
	C6 and >C6		<0,01		
	1,3-Butadiene		<0,01		
trans-2-Pentene	<0,01				
2-Methyl-2-Butene (iso-Pentene)	<0,01				
cis-2-Pentene	<0,01				
Cyclopropane	<0,01				
15-65 °C	Density (15 °C)	DIN EN ISO 12185	657,1	kg/m3	
65-100 °C	Density (15 °C)		723,6		
100-150 °C	Density (15 °C)		758,1		
150-200 °C	Density (15 °C)		757,0		
200-250 °C	Density (15 °C)		816,9		
250-300 °C	Density (15 °C)		835,6		
300-350 °C	Density (15 °C)		855,6		
350-370 °C	Density (80 °C)		827,5		
>370 °C	Density (80 °C)		880,1		
370-450 °C	Density (80 °C)		850,2		
450-500 °C	Density (80 °C)		866,3		
500-550 °C	Density (80 °C)		874,6		
550-565 °C	Density (80 °C)		887,1		
>565 °C	Density (15 °C)		calculated		975,1



ASG

Analytik-Service

PILODIST GmbH

Petroleum distillation made with PD 100 CC and PD 200 CC
according to ASTM-D2892 and ASTM-D5236

Name of charge	Date of Start	Operator	Comment
Crude Oil	24.06.2020	Christian Schwarz	Crude Oil

Flask (tare)	2191,7 g	wet Charge-Density at 15°C:	0,826 g/cm ³
Flask (gross)	8590,4 g	wet Charge-Volume at 15°C:	7751,3 ml
Residue (gross)	2339,3 g		
Gastrap (tare)	3591,8 g		
Gastrap (gross)	3739,4 g		

	Weight in g	Weight in %	Density in g/cm ³	Volume in ml	Volume in %
Water	0,0	0,0	1,00	0,0	0,0
Crude oil dry (net)	6398,7	100,0	0,826	7751,3	100,0
Residue (net)	425,5	6,6	0,977	435,3	5,6
Gastrap (net)	147,6	2,3	0,00244		
Dry Iced Trap	0,0	0,0			
Total hold up	0,0	0,0			
Loss	0,0	0,0			

Cut No.	Range		Pressur Torr	Receiver No.	Weight	Weight	Density at 15 °C	Volume	Volume	Weight	Volume
	in from	AET (°C) to			in g	in %		in ml	in %	cumulative in %	cumulative in %
Deb.		15	15	Gasfalle	148	2,3				2,3	0,0
1	15	40	722	1	109	1,7	0,628	173,3	2,2	4,0	2,2
2	40	95	722	2 3	435	6,8	0,708	614,6	7,9	10,8	10,2
3	95	150	722	4 5	750	11,7	0,767	978,1	12,6	22,5	22,8
4	150	170	722	6	272	4,2	0,791	343,3	4,4	26,8	27,2
5	170	230	100	7 8	713	11,1	0,814	876,0	11,3	37,9	38,5
6	230	280	100	9 10	771	12,1	0,838	920,4	11,9	50,0	50,4
7	280	340	10	11 12	925	14,5	0,85	1088,3	14,0	64,4	64,4
8	340	370	10	13	387	6,0	0,866	446,5	5,8	70,5	70,2
9	370	510	0,1	14 15	1233	19,3	0,890	1384,4	17,9	89,7	88,0
10	510	565	0,1	16	232	3,6	0,919	252,5	3,3	93,4	91,3
11	565				425	6,6	0,977	435,3	5,6	100,0	96,9



