REPÚBLICA BOLIVARIANA DE VENEZUELA
UNIVERSIDAD NACIONAL EXPERIMENTAL
DE LA FUERZA ARMADA
NÚCLEO ZULIA

FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº1.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines Bartlesville Laboratory
Sample 56112

IDENTIFICATION

Corsicana field
Wolf City, Upper Cretaceous
1,088-1,116 feet

Texas
Navarro County

GENERAL CHARACTERISTICS

Gravity, specific, 0.834 Gravity, ° API, 38.2 Pour point, ° F., below 5
Sulfur, percent, 0.24 Color, brownish green
Viscosity, Saybolt Universal at 100°F., 43 sec. Nitrogen, percent, 0.000

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

Stage 1—Distillation at atmospheric pressure, 751 mm. Hg
First drop, 106 ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr., 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. visc., 100° F.	Cloud test, ° F.
1	122									
2	167	1.7	1.7	0.666	81.0					
3	212	3.2	4.9	.701	70.4	12	1.38738	127.2		
4	257	6.2	11.1	.724	63.9	14	1.40466	128.3		
5	302	5.9	17.0	.742	59.2	15	1.41441	122.9		
6	347	7.6	24.6	.762	54.2	18	1.42379	132.2		
7	392	6.8	31.4	.778	50.4	19	1.43298	128.6		
8	437	5.7	37.1	.795	46.5	22	1.44101	125.8		
9	482	7.1	44.2	.809	43.4	23	1.44869	130.9		
10	527	7.4	51.6	.826	39.8	26	1.45727	134.7		
Stage 2—Distillation continued at 40 mm. Hg										
11	392	4.5	56.1	0.844	36.2	31	1.46666	136.0	41	10
12	437	6.2	62.3	.854	34.2	32	1.47114	139.4	47	25
13	482	5.1	67.4	.866	31.9	34	1.47746	141.3	59	45
14	527	4.8	72.2	.884	28.6	40	1.48359	147.2	84	60
15	572	5.5	77.7	.894	26.8	41	1.49112	142.5	155	75
Residuum.		21.6	99.3	.951	17.2					

Carbon residue, Conradson: Residuum, 8.3 percent; crude, 2.0 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	4.9	0.689	73.9	
Total gasoline and naphtha	31.4	0.743	58.9	
Kerosine distillate	12.8	.803	44.7	
Gas oil	16.5	.839	37.2	
Nonviscous lubricating distillate	10.3	.857-.886	33.6-28.2	50-100
Medium lubricating distillate	6.7	.886-.889	28.2-25.9	100-200
Viscous lubricating distillate	-	-	-	Above 200
Residuum	21.6	.951	17.3	
Distillation loss	.7			

U. S. GOVERNMENT PRINTING OFFICE 16—83656-2

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
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FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº2.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines Bartlesville Laboratory
Sample 51051

IDENTIFICATION

Cedar Lake field
San Andres, Permian
4,580-4,765 feet

Texas
Gaines County

GENERAL CHARACTERISTICS

Gravity, specific, 0.863 Gravity, ° API, 32.5 Pour point, ° F., below 5
Sulfur, percent, 2.12 Color, greenish black
Viscosity, Saybolt Universal at 100° F., 45 sec. Nitrogen, percent, 0.09

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

Stage 1—Distillation at atmospheric pressure, 746 mm. Hg
First drop, 88 ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr. 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. visc. 100° F.	Cloud test, ° F.
1	122	1.8	1.8	0.656	84.2		1.39023	139.5		
2	167	6.4	8.2	.697	71.5	20	-	-		
3	212	3.1	11.3	.740	59.5	31	1.42215	146.8		
4	257	4.7	16.0	.761	54.4	32	1.43240	150.2		
5	302	6.4	22.4	.777	50.6	32	1.43892	147.8		
6	347	4.6	27.0	.790	47.6	31	1.44401	145.3		
7	392	4.8	31.8	.801	45.2	30	1.45084	145.9		
8	437	4.3	36.1	.815	42.1	31	1.46039	151.1		
9	482	5.4	41.5	.831	38.8	33	1.47221	162.4		
10	527	6.8	48.3	.849	35.2	37				
Stage 2—Distillation continued at 40 mm. Hg										
11	302	1.4	49.7	0.862	32.7	39			40	15
12	437	5.7	55.4	.873	30.6	41			44	30
13	482	5.6	61.0	.889	27.7	45			56	50
14	527	5.3	66.3	.899	25.9	47			82	65
15	572	5.5	71.8	.916	23.0	55			150	85
Residuum		27.0	98.8	.987	11.9					

Carbon residue, Conradson: Residuum, 10.7 percent; crude, 3.3 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	11.3	0.702	70.1	
Total gasoline and naphtha	31.8	0.754	56.2	
Kerosine distillate	4.3	.815	42.1	
Gas oil	19.5	.852	34.6	
Nonviscous lubricating distillate	9.5	.881-.903	29.1-25.2	50-100
Medium lubricating distillate	6.7	.903-.925	25.2-21.5	100-200
Viscous lubricating distillate	-	-	-	Above 200
Residuum	27.0	.987	11.9	
Distillation loss	1.2			

U. S. GOVERNMENT PRINTING OFFICE 16—27533-3

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
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NÚCLEO ZULIA

FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº3.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines ...Bartlesville..... Laboratory
Sample ...62066.....

IDENTIFICATION

Hastings, East field
Frio, Oligocene
6,020-6,050 feet

Texas
Brazoria County

GENERAL CHARACTERISTICS

Gravity, specific, 0.871 Gravity, ° API, 31.0 Pour point, ° F., below 5
Sulfur, percent, 0.15 Color, greenish black
Viscosity, Saybolt Universal at 77°F. 62 sec.; 100°F. 55 sec. Nitrogen, percent, 0.02

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

STAGE 1—Distillation at atmospheric pressure, 743 mm. Hg
First drop, 145 ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum. percent	Sp. gr., 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. visc., 100° F.	Cloud test, ° F.
1	122									
2	167	1.1	1.1	0.748	57.7	-	1.40061	126.1		
3	212	1.8	2.9	.753	56.4	37	1.40946	129.6		
4	257	1.7	4.6	.757	55.4	30	1.41686	131.3		
5	302	2.7	7.3	.770	52.3	28	1.42613	139.7		
6	347	3.4	10.7	.789	47.8	31	1.43860	142.8		
7	392	5.1	15.8	.813	42.6	36	1.45011	147.6		
8	437	5.9	21.7	.829	39.2	38	1.45805	149.8		
9	482	9.8	31.5	.846	35.8	41	1.46806	153.5		
10	527	10.7	42.2	.860	33.0	42	1.47690	158.6		
STAGE 2—Distillation continued at 40 mm. Hg										
11	392	4.4	46.6	0.871	31.0	44	1.48289	158.7	42	Below 5
12	437	8.7	55.3	.880	29.3	44	1.48436	156.3	49	do.
13	482	6.7	62.0	.891	27.3	46	1.48938	155.1	68	do.
14	527	5.9	67.9	.904	25.0	49	1.49414	153.0	110	do.
15	572	6.6	74.5	.910	24.0	49			225	10
Residuum		23.0	97.5	.942	18.7					

Carbon residue, Conradson: Residuum, 4.3 percent; crude, 1.1 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	2.9	0.751	56.9	
Total gasoline and naphtha	15.8	0.783	49.2	
Kerosine distillate	-	-	-	
Gas oil	35.6	.855	34.0	
Nonviscous lubricating distillate	12.1	.880-.901	29.3-25.6	50-100
Medium lubricating distillate	6.4	.901-.908	25.6-24.3	100-200
Viscous lubricating distillate	4.6	.908-.913	24.3-23.5	Above 200
Residuum	23.0	.942	18.7	
Distillation loss	2.5			

U. S. GOVERNMENT PRINTING OFFICE 16—87613-2

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
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FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº4.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines Bartlesville Laboratory
Sample 64036

IDENTIFICATION

Sho-Vel-Tum field
Sholem Alechem area
Pennsylvanian
3,468-3,488 feet

Oklahoma
Stephens County

GENERAL CHARACTERISTICS

Gravity, specific, 0.893 Gravity, ° API, 27.0 Pour point, ° F., below 5
Sulfur, percent, 1.34 Color, greenish black
Viscosity, Saybolt Universal at 100°F., 131 sec.; 130°F., 84 sec. Nitrogen, percent, 0.243

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

STAGE 1—Distillation at atmospheric pressure, 732 mm. Hg
First drop, 77 ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr., 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. visc., 100° F.	Cloud test, ° F.
1	122									
2	167									
3	212	3.2	3.2	0.704	69.5	-	1.39260	128.2		
4	257	3.5	6.7	.732	60.5	20	1.40952	131.7		
5	302	3.7	10.4	.759	54.9	23	1.42062	133.4		
6	347	3.8	14.2	.778	50.4	25	1.43156	135.0		
7	392	3.5	17.7	.798	45.8	29	1.44148	137.7		
8	437	4.0	21.7	.814	42.3	31	1.45105	140.0		
9	482	4.7	26.4	.832	38.6	34	1.46032	148.1		
10	527	5.1	31.5	.847	35.6	36	1.46909	154.9		
STAGE 2—Distillation continued at 40 mm. Hg										
11	392	3.7	35.2	0.870	31.1	43	1.47931	158.1	42	5
12	437	4.7	39.9	.877	29.8	43	1.48496	164.2	50	25
13	482	5.6	45.5	.895	26.6	48	1.49389	-	73	50
14	527	3.8	49.3	.905	24.9	49			115	60
15	572									
Residuum		48.9	98.2	.972	14.1					

Carbon residue, Conradson: Residuum, 9.2 percent; crude, 4.9 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	3.2	0.704	69.5	
Total gasoline and naphtha	17.7	0.757	55.5	
Kerosine distillate	4.0	.814	42.3	
Gas oil	15.8	.852	34.6	
Nonviscous lubricating distillate	8.2	.877-.901	29.8-25.5	50-100
Medium lubricating distillate	3.6	.901-.909	25.5-24.2	100-200
Viscous lubricating distillate	-	-	-	Above 200
Residuum	48.9	.972	14.1	
Distillation loss	1.8			

U. S. GOVERNMENT PRINTING OFFICE 16—87142-3

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
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FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº5.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines ....Bartlesville..... Laboratory
Sample ....59172.....

IDENTIFICATION

Sho-Vel-Tum field
Tatums area
Pennsylvanian

Oklahoma
Garvin County

GENERAL CHARACTERISTICS

Gravity, specific, ...0.928..... Gravity, ° API, ...21.0..... Pour point, ° F. ....below 5.....
Sulfur, percent, ...1.68..... Color, ...brownish black.....
Viscosity, Saybolt Universal at 100°F. 550 sec; 130°F. 440 sec. Nitrogen, percent, ...0.482.....

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

STAGE 1—Distillation at atmospheric pressure, ...743..... mm. Hg
First drop. ....147..... ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr., 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. Visc., 100° F.	Cloud test, ° F.
1	122									
2	167									
3	212	2.6	2.6	0.695	72.1	-	1.38886	124.3		
4	257	2.8	5.4	.737	60.5	20	1.40876	124.0		
5	302	2.9	8.3	.758	55.2	23	1.41971	128.8		
6	347	3.5	11.8	.778	50.3	25	1.43164	131.0		
7	392	2.7	14.5	.799	45.6	29	1.44187	135.5		
8	437	3.1	17.6	.817	41.7	32	1.45080	136.7		
9	482	4.4	22.0	.832	38.6	-	1.46062	143.8		
10	527									

STAGE 2—Distillation continued at 40 mm. Hg

11	392	6.1	28.1	0.859	33.2	-	1.47659	156.3	38	below 5
12	437	4.5	32.6	.878	29.7	43	1.48547	160.2	47	do.
13	482	3.9	36.5	.890	27.5	46	1.49374	157.4	62	do.
14	527	4.8	41.3	.909	24.2	-	1.50253	161.8	105	do.
15	572									
Residuum		55.9	97.2	1.012	8.3					

Carbon residue, Conradson: Residuum, ...8.2 percent; crude5.0..... percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	2.6	0.695	72.1	
Total gasoline and naphtha	14.5	0.755	55.9	
Kerosine distillate	3.1	.817	41.7	
Gas oil	13.6	.854	34.2	
Nonviscous lubricating distillate	7.3	.880-.907	29.3-24.5	50-100
Medium lubricating distillate	2.8	.907-.919	24.5-22.5	100-200
Viscous lubricating distillate	-	-	-	Above 200
Residuum	55.9	1.012	8.3	
Distillation loss	2.8			

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
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NÚCLEO ZULIA

FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº6.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines ..Bartlesville..... Laboratory
Sample ..54064.....

IDENTIFICATION

Sho-Vel-Tum field
Camp area
Springer, Pennsylvanian
6,295-6,385 feet

Oklahoma
Carter County

GENERAL CHARACTERISTICS

Gravity, specific, .0.887..... Gravity, ° API, ...28.0..... Pour point, ° F., ...10.....
Sulfur, percent, ...1.41..... Color, ..brownish black.....
Viscosity, Saybolt Universal at 100°F., 115 sec.; 130°F., 81 sec.... Nitrogen, percent, ..0.318.....

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

Stage 1—Distillation at atmospheric pressure, ...745.... mm. Hg
First drop, ...84..... ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr. 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. visc., 100° F.	Cloud test, ° F.
1	122	1.3	1.3	0.648	86.9					
2	167	1.5	2.8	.674	78.4	9.4				
3	212	3.3	6.1	.712	67.2	18	1.39123	127.3		
4	257	4.3	10.4	.739	60.0	21	1.40995	127.9		
5	302	4.0	14.4	.758	55.2	23	1.42105	130.1		
6	347	4.1	18.5	.779	50.1	26	1.43181	134.3		
7	392	3.7	22.2	.798	45.8	29	1.44175	136.9		
8	437	4.1	26.3	.814	42.3	31	1.45087	141.2		
9	482	4.8	31.1	.831	38.8	33	1.46025	145.7		
10	527	6.0	37.1	.848	35.4	37	1.46939	155.6		
Stage 2—Distillation continued at 40 mm. Hg										
11	392	1.1	38.2	0.862	32.7	39	1.47778	153.8	43	10
12	437	4.2	42.9	.873	30.6	41	1.48216	156.6	46	25
13	482	4.6	47.5	.882	28.9	42	1.48952	161.8	58	40
14	527	5.3	52.8	.898	26.1	46			88	55
15	572	5.3	58.1	.911	23.8	49			175	70
Residuum.		40.9	99.0	.982	12.6					

Carbon residue, Conradson: Residuum, ..11.4..percent; crude, ..5.2.. percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	6.1	0.689	73.9	
Total gasoline and naphtha	22.2	0.746	58.2	
Kerosine distillate	4.1	.814	42.3	
Gas oil	16.0	.844	36.2	
Nonviscous lubricating distillate	8.6	.854-.871	34.2-31.0	50-100
Medium lubricating distillate	6.1	.871-.891	31.0-27.3	100-200
Viscous lubricating distillate	1.1	.891-.894	27.3-26.8	Above 200
Residuum	40.9	.982	12.6	
Distillation loss	1.0			

U. S. GOVERNMENT PRINTING OFFICE 16—52055-8

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
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NÚCLEO ZULIA

FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº7.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines Bartlesville Laboratory
Sample 54060

IDENTIFICATION

Bayou des Allemands field — Louisiana
Miocene — Lafourche Parish

GENERAL CHARACTERISTICS

Gravity, specific, 0.845 — Gravity, ° API, 36.0 — Pour point, ° F., 35
Sulfur, percent, 0.20 — Color, brownish green
Viscosity, Saybolt Universal at 100° F., 49 sec. — Nitrogen, percent, 0.040

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

STAGE 1—Distillation at atmospheric pressure, 743 mm. Hg
First drop, 86 ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr. 60/60° F.	° API, 60° F.	C. I.	Refractive index, n_D at 20° C.	Specific dispersion	S. U. visc., 100° F.	Cloud test, ° F.
1	122	0.5	0.5	0.670	79.7					
2	167	1.2	1.7	.675	78.1	11				
3	212	1.6	3.3	.722	64.5	23	1.39163	137.0		
4	257	2.7	6.0	.748	57.7	26	1.41725	141.7		
5	302	3.1	9.1	.765	53.5	26	1.42648	142.3		
6	347	3.9	13.0	.778	50.4	25	1.43374	140.7		
7	392	4.7	17.7	.789	47.8	24	1.43962	138.0		
8	437	5.7	23.4	.801	45.2	24	1.44529	137.6		
9	482	8.0	31.4	.814	42.3	25	1.45193	137.4		
10	527	10.7	42.1	.825	40.0	26	1.45884	142.9		
STAGE 2—Distillation continued at 40 mm. Hg										
11	392	5.0	47.1	0.845	36.0	31	1.46614	142.6	40	15
12	437	10.0	57.1	.854	32	32	1.46870	139.9	45	30
13	482	7.8	64.9	.863	32.5	33	1.47403	140.4	56	50
14	527	7.0	71.9	.874	30.4	35			81	65
15	572	6.5	78.4	.889	27.7	39			145	85
Residuum		20.8	99.2	.931	20.5					

Carbon residue, Conradson: Residuum, 3.7 percent; crude, 0.8 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	3.3	0.697	71.5	
Total gasoline and naphtha	17.7	0.759	54.9	
Kerosine distillate	24.4	.816	41.9	
Gas oil	14.2	.850	35.0	
Nonviscous lubricating distillate	14.1	.858-.878	33.4-29.7	50-100
Medium lubricating distillate	8.0	.878-.895	29.7-26.6	100-200
Viscous lubricating distillate	-	-	-	Above 200
Residuum	20.8	.931	20.5	
Distillation loss	.8			

Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**

REPÚBLICA BOLIVARIANA DE VENEZUELA
UNIVERSIDAD NACIONAL EXPERIMENTAL
DE LA FUERZA ARMADA
NÚCLEO ZULIA

FISICOQUÍMICA DE HIDROCARBUROS Y SUPERFICIE
PROF. NOLAURA INCIARTE

GRUPO Nº8.

CRUDE PETROLEUM ANALYSIS

Bureau of Mines Bartlesville Laboratory
Sample 60052

IDENTIFICATION

Black Bay, West field
9200', Miocene
9,178-9,185 feet

Louisiana
Plaquemines Parish

GENERAL CHARACTERISTICS

Gravity, specific, 0.853 Gravity, ° API, 34.4
Sulfur, percent, 0.19
Viscosity, Saybolt Universal at 100°F. 46 sec.

Pour point, ° F., below 5
Color, brownish green
Nitrogen, percent, 0.04

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

Stage 1—Distillation at atmospheric pressure, 758 mm. Hg
First drop, 113 ° F.

Fraction No.	Cut temp. ° F.	Percent	Sum, percent	Sp. gr. 60/60° F.	° API, 60° F.	C. I.	Refractive index n_D at 20° C.	Specific dispersion	S. U. visc., 100° F.	Cloud test, ° F.
1	122									
2	167									
3	212	2.6	2.6	0.706	68.9	-	1.39971	129.4		
4	257	3.1	5.7	.739	60.0	21	1.41235	132.0		
5	302	3.7	9.4	.762	54.2	25	1.42308	135.4		
6	347	4.2	13.6	.780	49.9	26	1.43298	137.1		
7	392	5.8	19.4	.796	46.3	28	1.44076	138.4		
8	437	4.9	24.3	.807	43.8	27	1.44701	139.1		
9	482	7.6	31.9	.820	41.1	28	1.45389	140.8		
10	527	9.1	41.0	.834	38.2	30	1.46161	143.0		
Stage 2—Distillation continued at 40 mm. Hg										
11	392	6.0	47.0	0.846	35.8	32	1.46905	148.8	40	below 5
12	437	8.3	55.3	.854	34.2	32	1.47238	147.4	46	20
13	482	6.8	62.1	.866	31.9	34	1.47868	144.0	58	50
14	527	5.8	67.9	.881	29.1	38	1.48434	-	81	60
15	572	6.1	74.0	.892	27.1	40			135	70
Residuum		24.5	98.5	.940	19.0					

Carbon residue, Conradson: Residuum, 4.6 percent; crude, 1.2 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
Light gasoline	2.6	0.706	68.9	
Total gasoline and naphtha	19.4	0.765	53.5	
Kerosine distillate	12.5	.815	42.1	
Gas oil	21.9	.843	36.4	
Nonviscous lubricating distillate	12.9	.858-.884	33.4-28.6	50-100
Medium lubricating distillate	7.3	.884-.898	28.6-26.1	100-200
Viscous lubricating distillate	-	-	-	Above 200
Residuum	24.5	.940	19.0	
Distillation loss	1.5			

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Determine:

a. **Curva TBP, ASTM y EFV.**
b. **Factor de caracterización de Watson.**