

TEXAS BOARD OF WATER ENGINEERS

C. S. Clark, Chairman
A. H. Dunlap, Member
J. W. Pritchett, Member



RUSK COUNTY, TEXAS

PREPARED IN COOPERATION WITH THE UNITED STATES
DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY

SEPTEMBER 1943

RUSK COUNTY, TEXAS
(Northwestern part)

Records of wells, drillers' logs, water analyses
and map showing locations of wells

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Introduction

By

C. R. Follett

This publication covers a part of the East Texas oil field and adjacent area in the northwestern part of Rusk County, and is supplemental to one that was released for the entire county by the Texas Board of Water Engineers on September 25, 1937. It contains records of 161 wells, drillers' logs of 81 wells, and results of chemical analyses of water from 121 wells in Rusk County, Texas.

It also includes a map, showing the location of the wells, each well being given a number on the map corresponding to the number assigned to it in the records. A part of the records are copied from the 1937 publication but most of them were collected during 1931 and 1932. The field work was done in connection with a state-wide program of ground-water investigations in Texas conducted by the State Board of Water Engineers in cooperation with the United States Department of the Interior, Geological Survey.

The water analyses were made by W. W. Hastings, Chemist of the Quality of Water Division of the Federal Geological Survey, and by chemists employed by the Work Projects Administration under the supervision of Mr. Hastings, and Dr. E. F. Schuch, Director of the Bureau of Industrial Chemistry of The University of Texas. The results of the analyses, which relate only to the mineral constituents in the water and not to its sanitary character, are tabulated in parts per milliliter on pages 46 to 56. For the convenience of those who prefer a different form of expression the analyses of 19 samples are given in milligram equivalents per liter on page 56.

The records serve as a guide to land owners, officials of industrial plants, well drillers and others who need information regarding wells, the depth to ground water in different parts of the county, and the quantity and chemical character of water yielded by the wells.

A limited number of copies of this release are available for free distribution. They may be obtained by addressing a request to Mr. C. S. Clark, Chairman, Texas State Board of Water Engineers, 302 West 15th Street, Austin, Texas.

Records of wells in Rusk County, Texas

All wells are drilled unless otherwise stated in remarks

(Wells listed in report of September 25, 1937)

Well	Location	Owner	Driller	Date	Depth com- plete (ft.)	Diam- eter of well (ft.)	Height of measuring point above well (in.)	Height of ground (ft.)
1	2 miles northwest of Laird Hill	Tide Water Associated Oil Co. No. 2. (J. R. Beall)	---	1931	972	8 $\frac{1}{2}$, 6		--
16	In Overton	City of Overton No. 1	Layne-Texas Co.	1931	889	10	1.5	
22b	1 $\frac{1}{4}$ miles north- west of London	Magnolia Petroleum Co. (G. W. Eaton)	do.	1931	444	6- 5/8	2.0	
31a	1 $\frac{1}{2}$ miles northwest of Sexton City	Shell Oil Co. Inc. (W. P. Moore)	do.	1931	369	12 $\frac{1}{2}$	2.5	
31b	do.	Tide Water Associated Oil Co. No. 2. (W. P. Moore)	L. W. Little	1931	820	6- 5/8		--
32	2 miles northwest of Sexton City	Gulf Pipe Line Co. Benson Drilling (W. Florence)	Co.	1931	1,033	8, 5-3/16		--
38	1 $\frac{3}{4}$ miles southwest of Laird Hill	Tide Water Associated Oil Co. No. 1. (M.R.Terrell)	---	1931	242	8 $\frac{1}{2}$	--	
43	$\frac{3}{4}$ mile north of Laird Hill	Gulf Oil Corp. No. 2 (M. E. Peterson)	Fred Fielder	1934	922	12 $\frac{1}{8}$, 4 $\frac{3}{4}$		--
44	1 $\frac{1}{4}$ miles northeast of Laird Hill	Tide Water Associated Oil Co. No. 1. (Nat Bean)	L. W. Little	1931	676	6- 5/8		--
47	1 $\frac{1}{4}$ miles southwest of Laird Hill	Humble Oil and Refining Co. (L. D. Crim)	Layne-Texas Co.	1931	807	6	--	
47a	1 $\frac{1}{2}$ miles southeast of Laird Hill	Magnolia Petroleum Co. (Dick Wells)	do.	1931	862	12 $\frac{1}{2}$, 6		--
51a	1 $\frac{1}{2}$ miles northwest of Sexton City	Gulf Oil Corp. (C. M. Jernigan)	McQueen and Clevenger	1931	145	6- 5/8	4.5	
88	1 $\frac{1}{2}$ miles west of Laird Hill	Humble Oil and Refining Co. No. 2 (J. N. Peterson)	W. B. Hamilton	1934	835	10 $\frac{3}{4}$	1.0	

a/ A, air or natural gas lift; T, turbine; C, cylinder; G, natural gas or gasoline engine; E, electric. Number indicates horsepower.

Chemical analyses of water from some of these wells are shown in a table of analyses on pages 46 to 56.

Well	Water level		Method of measuring point (ft.)	Date of measurement	Use of lift a/	Reported yield (c.p.m.) b/	Remarks
	Below measuring point (ft.)	Date of measurement					
1	c/ 60	1936	A	Ind	--	Casing: 729 feet of $8\frac{1}{4}$ -inch; 243 feet of 6-inch. Screen from 920 to 972 feet. Same as well 486 in Gregg County report of 1937. See log.	
16	149.75	Mar. 19, 1936	T,E	P	175	Casing: 887 feet of 10-inch. Screen from 247 to 268, 283 to 328, 484 to 505, and 341 to 863 feet. This well and well 652 supply the city of Overton.	
22b	183.70	May 7, 1940	Ncne	N	--	Casing: 440 feet of 6-5/8-[See log.] inch. Screen from 246 to 334 feet.	
31a	73.21	Aug. 25, 1937	N ne	N	490	Casing: 269 feet of $12\frac{1}{2}$ -[See log.] inch. Screen from 165 to 247 feet. See log.	
	55.34	Oct. 6, 1941					
31b	--	--	A	D, Ind	--	Casing: 820 feet of 6-5/8-inch. Perforated casing from 338 to 364, 495 to 514, 632 to 739, 760 to 768, and 806 to 820 feet. See log.	
32	--	--	T,E,	D, Ind	--	Casing: 693 feet of 8-inch; 740 feet of 5-3/16-inch. Screen from 895 to 1,032 feet. See log.	
38	--	--	C,E	D, Ind	--	Screen from 81 to 127 feet. See log.	
45	--	--	None	N	--	Screen from 827 to 922 feet. Well filled in 1941. See log.	
44	--	--	None	N	--	Screen from 480 to 565 and 580 to 676 feet. See log.	
47	--	--	None	N	450	Screen from 345 to 396 and 746 to 791 feet. See log.	
47a	c/130	1931	C,G	D, Ind	50	Casing: 318 feet of $12\frac{1}{2}$ -inch; 544 feet of 6-inch. Screen from 378 to 445, 740 to 762, and 775 to 797 feet. Drawdown reported 97 feet while pumping 293 gallons a minute when drilled.	
51a	143.78	Oct. 6, 1941	A	N	--	Slotted Temperature 79° F. [See log.] casing fr. 123 to 145 feet. See log.	
88	81.31	Oct. 16, 1941	A	N	--	Casing: 745 feet of 10 $\frac{1}{2}$ -inch. Screen from 745 to 830 feet. See log.	

b/ Ind, industrial (usually oil field); D, domestic; I, public supply; S, stock; N, not used.

c/ Water level reported by owner or driller.

Records of wells in Rusk County--Continued

Well	Location	Owner	Driller	Date com- pleted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
299a	1½ miles northeast of London	Humble Oil and Refining Co. No. 1 (Ida Holt "B")	Layne-Texas Co.	1931	317	10	.5
315a	1 mile northwest of London	Gulf Oil Corp. No. 1 (G. C. Turner)	McMasters and Pomeroy	1931	858	--	--
316a	½ mile northeast of London	Tide Water Associated Oil Co. No. 1. (L.J. Pinkston "A")	L. W. Little	1931	738	7	--
316b	1 mile northeast of London	Tide Water Associated Oil Co. No. 1. (J. M. Shaw)	do.	1931	713	6- 5/8	--
331a	1½ miles northeast of Turnertown	Tide Water Associated Oil Co. No. 1. (Julia Finney)	do.	1931	660	6- 5/8, 5-3/16	--
336a	½ mile northwest of Turnertown	Humble Oil and Refining Co. No. 1 (M. and R. Kangerga "A")	Layne-Texas Co.	1931	259	12½	--
341a	1 mile west of Turnertown	Tide Water Associated Oil Co. No. 1. (J.R. Irion)	L. W. Little	1931	364	8½	--
348a	1½ miles north of Carlisle	Stanclind Oil and Gas Co. No. 1 (Malinda Schuler)	H. C. Benson	1931	926	6- 5/8	--
389a	1½ miles north of Carlisle	Magnolia Petroleum Co. No. 1. (Dan Kelly)	Layne-Texas Co.	1931	317	6	2.0
414	In Henderson, 1 mile east of Courtthouse	City of Henderson test well	I. D. White	1935	1,000	--	--
415	In Henderson, 1 mile southeast of Courtthouse	City of Henderson No. 2	Layne-Texas Co.	1931	680	8½	.0
416	do.	City of Henderson No. 4	do.	1936	583	12	2.0

a/ A, air or natural gas lift; T, turbine; C, cylinder; G, natural gas or gasoline engine; E, electric. Number indicates horsepower.

Well	Water level		Method of lift	Use of water	Reported (g.p.m.)	Remarks
	Below measuring point (ft.)	Date of measure- ment				
299a	194.50	Oct. 17, 1941	None	N	500	Casing: 317 feet of 10-inch. Screen from 235 to 315 feet. Reported yield 750,000 gallons a day for 3 years.
315a	--	--	--	--	--	See log. See log.
316a	--	--	T,E, 20	D,Ind	54	Casing: 13 feet of $8\frac{1}{4}$ -inch; 725 feet of 7-inch. Perforated casing from 502 to 708 feet. See log.
316b	--	--	A	D,Ind	--	Perforated casing from 511 to 713 feet. See log.
331a	--	--	C,G	D,Ind	--	Casing: 244 feet of 6-5/8-inch; 416 feet of 5-3/16-inch. Perforated casing from 440 to 660 feet. See log.
336a	c/101	1931	T,E, 60	D,Ind	450	Cased: 259 feet of $12\frac{1}{2}$ -inch. Screen from 139 to 199 feet. Drawdown reported 60 feet while pumping 450 gallons a minute when drilled. See log.
341a	--	--	None	N	--	Cased: 364 feet of $8\frac{1}{2}$ -inch. Slotted casing from 284 to 351 and 359 to 364 feet. See log.
348a	--	--	--	--	600	Casing: 745 feet of 6-5/8-inch. Slotted or perforated casing from 147 to 162, 260 to 293, 506 to 557, and 652 to 745 feet. See log.
389a	21.62	May 6, 1940	A	D,Ind	--	Casing: 517 feet of 6-inch. Screen from 28 to 119 feet. See log.
414	--	--	--	--	--	See log.
415	177.98	Oct. 7, 1938	None	N	320	Casing: 558 feet of 6-5/8-inch. Slotted casing from 448 to 558 feet. Well abandoned in 1942. See log.
	161	Nov. 27, 1940				
416	170.42	Aug. 24, 1937	T,E, 40	P	400	This well and well 762 supply city of Henderson. Well 758 is standby well. See log.
	150.77	Nov. 27, 1940				

b/ Ind, industrial (usually oil field); D, domestic; P, public supply; S, stock;
N, not used.

c/ Water level reported by owner or driller.

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 Records of wells in Rusk County--Continued
 (Supplemental to wells listed in report of September 25, 1937)

Well	Distance from Laird Hill	Owner (Lessor)	Driller	Date	Dept' com- plete- ted (ft.)	Diam- eter of well (in.)	measuring point above well (ft.)	Height of ground (ft.)
627	2 miles northwest	Tide Water Associated Oil Co. No. 1 (J. R. Beall)	--	1931	290	6-	5/8	--
628	1½ miles northeast	Tide Water Associated Oil Co. No. 2 (Nat Bean "A")	Layne-Texas Co.	1938	437	7	--	
629	½ mile north	Gulf Oil Corp. No. 3 (M. E. Peterson)	do.	1937	440	16, 8- 5/8	--	
630	do.	Houston Oil Co. No. 3 (D. M. Peterson)	-- Boles	1938	378	7	--	
631	In Laird Hill	Humble Oil and Refining Co. No. 2 (B. F. Laird "A")	Layne-Texas Co.	1940	389	8- 5/8	--	
632	do.	Humble Oil and Refining Co. No. 1 (B. F. Laird "A")	Walter A. Meller	1938	776	16, 7	--	
633	1½ miles southeast	Sinclair-Preairie Oil Co. (Major Kennedy "C")	do.	1935	500	8½	--	
634	1¾ miles southeast	Star Bailey School	--	1937	25	72	1.5	
635	1 mile southeast	Sinclair-Preairie Oil Co. (Major Kennedy "A")	L. W. Little	1932	195	6- 5/8	1.0	
636	½ mile south	Snowden and McSweeney (Francis Bean)	--	1933	665	5- 3/16, 4	--	
637	do.	Humble Oil and Refining Co. (Dave Ladd "A")	--	1931	551	6	.5	
638	1½ miles southwest	Midstates Oil Corp. (Brightwell "A")	Midstates Oil Corp.	1933?	168	6	--	
639	1½ miles southwest	Houston Oil Co. (T. P. Brightwell)	--	1931	625	7	--	
640	do.	Atlantic Refining Co. (Mose Brock)	Atlantic Refining Co.	--	400+	6	--	

^a/ A, air or natural gas lift; T, turbine; C, cylinder; G, natural gas or gasoline engine; E, electric. Number indicates horsepower.

Chemical analyses of water from some of those wells are shown in a table of analyses on pages 46 to 56.

Water level	Well No.	Date of method	Type of well	Report of	Remarks	
			measuring measure-	of yield		
			point	lift water (g.p.m.)		
			(ft.)	a/ b/		
627	--	--	C	Iнд	Casing: 247 feet of 6-5/8 inch. Screen from 247 to 290 feet. Same as well 62 in Gregg County report of 1937.	
628	--	--	T, E,	I, Ind	115	Casing: 437 feet of 7-inch. See log. Screen from 554 to 437 feet. Under- reamed and gravel walled. Pumping level reported 201 feet while pumping 115 gallons a minute when drilled. Well 682 in Gregg County report of 1945.
629	2/250	May 5, 1930	T, E,	P, Ind	300.	Casing: 7/8 foot of 10 end "Se. 1cr." 8-5/8 inch. Screen from 540 to 740 feet. Drawdown reported 72 feet after pumping 300 gallons a minute for 24 hours when drilled. See log.
630	--	--	C, G	I, Ind	--	Casing: 740 feet of 7-inch. Casing perforated from 540 to 378 feet.
631	2/269	Mar. 1940	T, E,	D, Ind	132	Casing: 839 feet of 8-5/8 inch. Screen from 319 to 347, 385 to 407, 429 to 452, 750 to 752 and 841 to 872 feet. Drawdown reported 96 feet while pumping 182 gallons a minute when drilled. Underreamed, gravel walled. See log.
632	--	--	None	I	75	Casing: 769 feet of 7-inch. Screen from 470 to 484 and 605 to 741 feet. Deepened from 554 to 776 feet in 1938.
633	--	--	F	D, Ind	76	Casing: 431 feet of 8-1/2 inch. See log. Screen from 431 to 500 feet. See log.
634	9-60	Jan. 21, 1942	C, S,	P	--	Dug.
635	9F.41	do.	None	M	--	Casing: 195 feet of 6-7/8-inch. Water sands reported from 150 to 135 and 186 to 195 feet.
636	9/151	1933	C, G,	I, Ind	10	Casing: 517 feet of 5-5/16-inch. Per- forated 4-inch casing from 510 to 368 feet.
637	143.24	Oct. 16, 1941	A	N	--	Casing 5-1 feet of 6-inch.
638	--	--	C, G,	E, Ind	--	
639	--	--	F	D, Ind	--	Casing: 925 feet of 7-inch.
640	--	--	F	E, Ind	20?	

b/ Ind, industrial (usually oil field); D, domestic; P, public supply; S, stock; N,
not used.

a/ Water level reported by owner or driller.

Records of wells in Rusk County--Continued

Well	Distance from Laird Hill	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
641	1 $\frac{3}{4}$ miles southwest	H. G. Samson, Inc. (Mose Brock)	John Russel	1938	788	5	--
642	2 miles southwest	Brock Oil Co. (Murphy and Roberts)	-- Patterson	1930	900	7	1.0
643	do.	Midstates Oil Corp. (Brightwell "B")	--	1935	829	5	--
Well	Distance from Sexton City	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
644	2 $\frac{1}{4}$ miles north	J. S. Abercrombie Co. and Harrison Oil Co. (M.A.Cantrell)	Abercrombie and Harrison	1931	600+	7	--
645	2 miles north	Tide Water Associated Oil Co. (F. L. Buntyn "B")	Texas-Gulf Prod. Co.	1931	780	4	--
646	do.	Tide Water Associated Oil Co. (W. M. Jernigan)	--	1931	542	6- 5/8	--
647	1 $\frac{1}{4}$ miles north	Tide Water Associated Oil Co. No. 1. (H.P.Leverett)	Fred Fielder	1931	1,075	7, 5- 3/16	--
648	1 $\frac{1}{2}$ miles northwest	Tide Water Associated Oil Co. No. 1. (C.O.Christian)	F. V. Murray	1931	745	7	--
649	1 $\frac{1}{2}$ miles west	Tide Water Associated Oil Co. (W. P. Moore)	G. P. Bernham	1931	145	6- 5/8	.5
650	do.	Magnolia Petroleum Co. (W. F. Moore)	--	1934?	95+	6- 5/8	--
651	2 miles west	Devonian Oil Co. (P. A. Motley)	Walter F. Heller	1931	343	6- 5/8	--
652	In Overton	City of Overton No. 3	Layne-Texas Co.	1941	338	10 $\frac{3}{4}$	--
653	1 $\frac{1}{2}$ miles south	Humble Oil and Refining Co. No. 2 (R.E.L.Silvey "A")	do.	1940	562	13- 5/8, 8-5/8, 7	--
654	do.	Humble Oil and Refining Co. No. 1 (R.E.L.Silvey "A")	Fred Fielder	1936	517	10	--

Well	Water level		Method	Use	Reported yield (g.p.m.)	Remarks
	Below measuring point (ft.)	Date of measurement (ft.)				
641	c/ 75	1938	A	D, Ind	70	Casing: 638 feet of 5-inch. Perforated casing from 638 to 788 feet. Sands reported from 650 to 660 and 690 to 788 feet.
642	145.75	Oct. 8, 1941	A	D, Ind	--	
643	--	--	A	D, Ind	--	Casing: 743 feet of 5-inch. Perforated casing from 744 to 829 feet. See log.
Well	Water level		Method	Use	Reported yield (g.p.m.)	Remarks
	Below measuring point (ft.)	Date of measurement (ft.)				
644	--	--	I	Ind	--	
645	--	--	A	Ind	10	Casing: 540 feet of 4-inch. Perforated casing from 540 to 780 feet.
646	--	--	C, G, 10	N	--	Casing: 368 feet of 6-5/8-inch. Perforated casing from 368 to 542 feet. See log.
647	--	--	A	Ind	--	Casing: 634 feet of 7-inch; 200 feet of 5-3/16-inch. Perforated casing from 834 to 1,075 feet. See log.
648	--	--	A	E	60	Casing: 674 feet of 7-inch. Perforated casing from 165 to 210 and 654 to 674 feet. See log.
649	20.59	Oct. 7, 1941	None	N	--	Casing: 145 feet of 6-5/8-inch. Screen from 83 to 145 feet.
650	--	--	C	D, Ind	--	
651	--	--	A	Ind	--	See log.
652	c/158	Mar. 1941	T, E, 30	P	300	Casing: 338 feet of 10 $\frac{3}{4}$ -inch. Screens from 246 to 288 and 309 to 370 feet. Underreamed to 30 inches and gravel-walled. Drawdown reported 36 feet while pumping 300 gallons a minute when
653	--	--	T, E, 40	Ind	200	Casing: 396 feet drilled. See log. of 13-3/8-inch; 56 feet of 8-5/8-inch; 110 feet of 7-inch. Screen from 452 to 535 feet. Underreamed and gravel-
654	--	--	A	Ind	90	Casing: 517 feet of walled. See log. 10-inch. Screen from 414 to 503 feet. See log.

Records of wells in Rusk County--Continued

Well	Distance from London	Owner (Lessor)	Driller	Date com- pleted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
655	1 $\frac{1}{4}$ miles northeast	Humble Oil and Refining Co. No. 3 (Ida Holt "B")	Walter A. Neller	1938	534	10	--
656	do.	Humble Oil and Refining Co. No. 4 (Ida Holt "B")	Layne-Texas Co.	1939	596	12 $\frac{1}{2}$	--
657	do.	Humble Oil and Refining Co. No. 2 (Ida Holt "B")	Humble Oil and Refining Co.	1934	366	15 $\frac{1}{2}$	--
658	2 $\frac{1}{4}$ miles northeast	New London School	Layne-Texas Co.	1937	537	13- 3/8, 7	--
659	1 $\frac{1}{4}$ miles northwest	Olsan Brothers, Inc. (C. W. Mullins)	--	1938?	500	6	--
660	2 $\frac{1}{2}$ miles northwest	Gulf Oil Corp. No. 2 (T. B. Cashen)	Fred Fielder	1932	454	8	--
661	do.	Gulf Oil Corp. No. 3 (T. B. Cashen)	Layne-Texas Co.	1937	328	16, 8- 5/8	--
662	do.	Gulf Oil Corp. No. 1 (T. B. Cashen)	Walter A. Neller	1931	910	6- 5/8	1.5
663	2 $\frac{1}{4}$ miles northwest	Stanolind Oil and Gas Co. (W. O. Alford)	do.	1931	675	8 $\frac{1}{4}$	--
664	2 miles northwest	G. H. Vaughn Prod. Co. (W. O. Alford)	--	1931	600+	6- 5/8?	2.0
665	1 $\frac{1}{2}$ mile northwest	G. H. Vaughn Prod. Co. (L. P. Thrash)	Peppublic Prod. Co.	1931	1,000+	7	--
666	1 $\frac{1}{2}$ mile southeast	Milford Oil Co. (M. A. Thrash)	--	--	195	7	--
667	1 $\frac{1}{4}$ mile southeast	Stanolind Oil and Gas Co. (J. B. Milstead)	Walter A. Neller	1931	390	8	--
668	1 mile east	Ralph E. Fair, Inc. (B. F. Maxwell)	--	--	700+	8	1.0
669	1 $\frac{3}{4}$ miles southeast	Aston Greenaway Oil Co. (J. R. Alford)	--	1932	412	6- 5/8	1.0
670	2 $\frac{1}{4}$ miles southeast	J. E. Mabee Oil Co. (J. P. Maxwell)	--	1937	200+	6	--

Well	Water level Below measuring point (ft.)	Date of measurement	Method	Use of lift	Reported yield (r.p.m.)	Remarks
655	--	--	None	N	--	Casing: 414 feet of 10-inch. Screen from 414 to 521 feet. See log.
656	--	--	T,E, 75	D,Ind	425	Casing: 587 feet of 12½-inch. Screen from 453 to 577 feet. Underreamed to 36 inches and gravel-walled. Pumping level reported 417 feet while pumping
657	--	--	None	N	315	Casing: 425 gallons a minute. See log.
658	c/220 c/294	Oct. 4, 1937 Aug. 18, 1939	T,E, 25	P	130	Casing: 546 feet of 15-3/8-inch; 191 feet of 7-inch. Screen from 456 to 516 feet. Underreamed to 30 inches and gravel-walled. Drawdown reported 80 feet while pumping 72 gallons a minute
659	--	--	C,G, 30	D,Ind	--	when drilled. See log.
660	--	--	A	N	200	Casing: 317 feet of 8-inch. Perforated casing from 317 to 420 feet. See log.
661	c/179	Apr. 3, 1937	T,E, 20	D,Ind	220	Casing: 265 feet of 16 and 8-5/8-inch. Screen from 265 to 325 feet. Underreamed to 30 inches and gravel-walled
662	230.02	Oct. 7, 1941	None	N	80	Drawdown reported 20 feet while pumping 94 gallons a minute. See log.
663	--	--	A	Ind	--	Perforated casing from 259 to 274 and 314 to 336 feet. See log.
664	145.36	Oct. 17, 1941	A	N	--	
665	--	--	A	Ind	--	
666	--	--	A	D,S, Ind	50	
667	c/ 80	1938	A,G, 110	Ind	--	See log.
668	144.90 139.3	May 8, 1940 Jan. 19, 1942	None	N	--	Well sanded up to 139 feet in 1942.
669	63.92	May 7, 1940	C,G, 24	Ind	--	Yield reported from sand at 329 to 410 feet.
670	--	--	C	N	--	

Records of wells in Rusk County--Continued

Well	Distance from London	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
671	1 $\frac{3}{4}$ miles southeast	D. B. McIernan (E. B. Alford)	--	1932	880	8, 7, $\frac{1}{2}$, $\frac{3}{4}$	2.5
672	1 $\frac{1}{2}$ miles southeast	Oato Oil Corporation (Cox "C")	--	--	200	6	--
Well	Distance from Turnertown	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
673	2 miles northeast	Atlantic Refining Co. (W.H. Fredrick)	--	--	440	6	--
674	do.	Tres Oil Corporation (Camp "A")	Helgeson	1938	98	4	--
675	do.	Roosth and Genecov (W. H. Camp)	--	--	100+	5- $\frac{3}{16}$	--
676	2 miles east	Penola Pipe Line Co. (-- Ashby)	--	--	100+	4	--
677	do.	do.	--	1937	100+	4	--
678	do.	do.	--	--	100+	6	--
679	1 $\frac{3}{4}$ miles east	Tidal Pipe Line Co. (D. Bradford "A")	Walter A. Meller	1935	329	4	--
680	1 $\frac{3}{4}$ miles northeast	Pine Petroleum Corporation (Mayfield-Alford)	do.	1935?	420	6	--
681	1 $\frac{1}{2}$ miles northeast	Parade Gasoline Co. No. 2 (C. C. Giles)	do.	1936	457	8	--
682	do.	Parade Gasoline Co. No. 3 (C. C. Giles)	Layne-Texas Co.	1937	466	10 $\frac{3}{4}$	--
683	1 $\frac{1}{2}$ miles northeast	Spendsco Oil and Refining Co. (W. P. Brett)	--	--	400+	6	--
684	1 $\frac{1}{2}$ miles north	Baldwin-Sultan Oil Co. (M. L. Thompson)	--	1931	360	8	1.5
685	1 $\frac{1}{4}$ miles northwest	Atlantic Refining Co. (M. L. Thompson)	--	1931	500+	7	--

Well	Water level Below measuring point (ft.)	Date of measurement 228.35 May 8, 1940	Method of lift <u>a/</u>	Use of water <u>b/</u>	Reported Ind	Remarks
671	c/165	1932	A	D,S,	100	Four-and-one-half-inch screen from 825 to 880 feet.
672	--	--	C	Ind	--	
Well	Water level Below measuring point (ft.)	Date of measurement 1940	Method of lift <u>a/</u>	Use of water <u>b/</u>	Reported Ind	Remarks
673	--	--	C	Ind	--	
674	--	--	C	D,Ind	10	Sand reported from 90 to 98 feet.
675	c/ 30	1940	C	Ind	--	
676	--	--	A	P	--	
677	--	--	F	P	--	
678	--	--	F	P	--	
679	c/100	--	C,E, $\frac{1}{2}$	D,Ind	--	Sand reported from 287 to 328 feet.
680	--	--	A	Ind	40	
681	--	--	F	D,Ind	50	Sand reported from 391 to 457 feet.
682	c/228	Aug. 1937	T,G, 85	E,Ind	200	Casing: 46¢ fest of 10 $\frac{3}{4}$ -inch. Screen from 360 to 443 feet. Underreamed and gravel-walled. See log.
	c/274	May 1, 1940				
683	--	--	C,G, 10	D,S, Ind	--	
684	181.51	Oct. 9, 1941	None	N	--	
685	--	--	C,G, 5	Ind	--	

Records of wells in Rusk County--Continued

Well	Distance from Turnertown	Owner (Lessor)	Driller	Date com- plete- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
686	1 $\frac{1}{4}$ miles northwest	Blackwell Oil and Gas Co. (Samp Stone)	--	--	450+	6	--
687	2 miles west	Sinclair-Prairie Oil Co. (J. P. Wilson)	Walter F. Meller	1931	407	8 $\frac{1}{4}$, 6-, 5/8	--
688	1 $\frac{1}{4}$ miles northwest	British-American Oil Co. (Kengerga Bros.)	--	1931	508	8, 5-, 3/8	--
689	$\frac{3}{4}$ mile northwest	British-American Oil Co. (J. D. Stone)	Ed Sisson	--	482	7, 5-, 3/16	--
690	$\frac{1}{4}$ mile east	Beacon Oil and Refining Co. (C. C. Giles)	Walter A. Heller	1931	576	6- 5/8	--
691	$\frac{1}{2}$ mile northeast	Retsal Drilling Co. (J. T. Brown)	--	--	500+	6- 5/8	1.5
692	do.	Haynes Oil Corp. (J. T. Brown)	--	1935	500+	6	--
693	do.	do.	--	1931	300+	7	--
694	$\frac{3}{4}$ mile east	Shell Oil Co., Inc. (H. Brooks)	Lica Oil Co.	--	700+	10	2.0
695	do.	do.	do.	--	340+	10	--
696	1 mile east	W. F. Gutzler (C. D. Ashby "C")	--	1932	300+	5- 3/16	1.0
697	1 $\frac{1}{4}$ miles southeast	Miller Production Co. (P. Bradford "P")	Walter A. Heller	1934	355	8	.0
698	3 $\frac{1}{2}$ miles southeast	Gaston School	Walter Sallee	1938	415	8	--
699	do.	do.	Fred Fielder	1931	246	5	--
700	2 miles southeast	Sun Oil Co. (R. J. Hendon)	Sun Oil Co.	1934	304	5 $\frac{1}{2}$, 4	--
701	1 $\frac{1}{2}$ miles southeast	Atlantic Refining Co. (-- Arnold)	Boling and Boling	1939	408	6, 4	--
702	do.	-- Frankel, et al. (J. E. Arnold)	Pugh and Hicknam	1951	450	6	--

Well	Water level below measuring point (ft.)	Date of measurement	Method	Use	Reported of yield lift water. (g.p.m.)	Remarks
686	--	--	A, G Ind	D, S,	75	
687	--	--	F	N	--	Casing: 287 feet of 8½-inch; 80 feet of 6-5/8-inch. Perforated casing from 367 to 467 feet. See log.
688	c/ 40	--	C, G, 15	D, Ind	30	
689	c/ 60	--	C, G, 10	D, Ind	--	Casing: 406 feet of 7-inch. Perfo- rated 5-3/16-inch casing from 406 to 482 feet. Sands reported at 60 to 140, 280 to 290, and 395 to 482 feet.
690	--	--	F	S, Ind	--	
691	120.80	May 8, 1940	C, G, 85	D, Ind	--	
	113.29	Oct. 22, 1941				
692	--	--	F	D, S	--	Ninety feet of screen reported at bottom.
693	--	--	A	Ind	--	
694	89.02	May 9, 1940	None	N	--	
695	--	--	C, G	D, S, Ind	--	
696	93.93	May 9, 1940	C	Ind	--	
697	103.68	May 8, 1940	F, E, 5	D, Ind	--	Yield reported from sand at 300 to 355 feet.
698	c/120	1938	T, E, 10	F	110	Casing: 395 feet of 8-inch. Screen from 395 to 415 feet.
699	--	--	None	"	--	Supplied school until well 698 was drilled.
700	--	--	C	D, S, Ind	--	Casing: 23 feet of 7-inch; 218 feet of 5½-inch; 15 feet of 4-inch. Perforated casing from 254 to 304 feet. See log.
701	--	--	C	Ind	--	Casing: 8 feet of 6-inch; 400 feet of 4-inch. Perforated casing from 336 to 376 feet. See log.
702	c/ 200	--	F	D, Ind	--	Casing: 430 feet of 6-inch. Screen from 430 to 450 feet.

Records of wells in Rusk County--Continued

Well	Distance from Turnertown	Owner (Lessor)	Driller	Date com- plete- ted	Depth of well (ft.)	Diam- eter of well (in.)	measuring point above ground (ft.)	Height of well (in.)
703	1 mile southeast	Stuart Petroleum Co. (Dr. -- Deason)	Stuart Petroleum Co.	1933	250+	--	--	
704	do.	do.	do.	--	250+	--	1.5	
705	1½ miles southeast	T. C. Adams (J. E. Arnold)	T. C. Adams	--	190+	--	--	
706	1½ miles southeast	Texas Trading Co. (A.J. and D.F. Deason)	Hooper Thomas	--	311	7	--	
707	do.	Ebony Oil Co. (A. J. Deason)	Walter A. Meller	1932	239	6	--	
708	1 mile south	The Ohio Oil Co. No. 3 (S. H. Moore)	--	1931	198	8½	--	
709	do.	The Ohio Oil Co. (S. H. Moore)	--	--	198	8	--	
710	do.	The Ohio Oil Co. No. 5 (S. H. Moore)	--	1932?	200	6,	--	
711	do.	The Ohio Oil Co. No. 2 (S. H. Moore)	--	1931	234	6-	1.0	
712	½ mile southeast	Midstates Oil Corp. No. 2 (A. J. Deason)	Walter A. Meller	1931	225	6-	--	
713	do.	Midstates Oil Corp. No. 1 (A. J. Deason)	do.	1931	219	6-	1.0	
714	½ mile southeast	Dalclark Oil Corp. (C. Young "E")	do.	1931	350	8	4.0	
715	do.	do.	do.	1931	460	8	2.0	
716	do.	Atlantic Refining Co. No. 2 (C. Young "F")	Pill Beling	1941	545	6-	--	
717	do.	Atlantic Refining Co. No. 1 (C. Young "F")	do.	1939	428	4	--	
718	¾ mile south	Granite Oil Trust (C. Young)	Dave Lide	1951	--	8	1.0	

Well	Water level below measuring point (ft.)	Date of measur- ment	Method	Use	Reported yield (g.p.m.)	Remarks
703	--	--	F	D, Ind	--	Sand reported from 120 to 210 feet.
704	127.04	May 8, 1940	A	N	--	Sand reported from 160 to 220 feet.
705	--	--	F	D, Ind	--	
706	--	--	F	D, Ind	--	Yield reported from sand at 119 to 130 feet.
707	--	--	F	D, Ind	50	Yield reported from sand at 179 to 238 feet.
708	--	--	F	Ind	50	Casing: 137 feet of 8 $\frac{1}{4}$ -inch. Screen from 137 to 198 feet. See log.
709	--	--	F	Ind	50	Perforated casing from 150 to 190 feet.
710	--	--	F	D, Ind	--	Perforated casing from 160 to 185 feet.
711	74.73	Oct. 14 1941	None	N	--	Casing: 223 feet of 6-5/8-inch. Screen from 223 to 284 feet. See log.
712	--	--	F	D, Ind	--	Casing: 223 feet of 6-5/8-inch. Per- forated casing from 163 to 200 feet. See log.
713	107.23	May 8, 1940	I	N	90	Casing: 219 feet of 6-5/8-inch. Per- forated casing from 157 to 196 feet. See log.
	104.63	Oct. 9, 1941				
714	102.26	Sept. 19, 1941	F	N	--	
715	120.51	May 6, 1940	A	D, Ind	40	
716	--	--	C, E, 2	D	--	Casing: 427 feet of 6-5/8-inch; 116 feet of 3 $\frac{1}{2}$ -inch. Perforated casing from 450 to 520 feet. See log.
717	--	--	None	N	10	Casing: 424 feet of 4-inch. Perfo- rated casing from 343 to 384 feet. Abandoned in 1941 when well 716 was
718	107.12	May 6, 1940	A	D, Ind	--	completed. See log.
	106.17	Oct. 14, 1941				

Records of wells in Rusk County--Continued

Well	Distance from Turnertown	Owner (Lessor)	Driller	Date com- plete- ted	Depth of well (ft.)	Diam- eter well (in.)	measuring point of well ground (ft.)	Height of measuring point above ground (ft.)
719	1/4 mile west	S. A. Selman	Crawford Drilling Co.	1934	153	3 1/2	--	
720	1/2 mile southwest	Sun Oil Co. No. 1 (S. A. Selman)	Sun Oil Co.	1933	132	7	--	
721	do.	Sun Oil Co. No. 2 (S. A. Selman)	Walter A. Meller	1935	402	7, 5 1/2	--	
722	1 mile southwest	Arkansas Fuel Oil Co. (G. Ferguson)	Arkansas Fuel Oil Co.	--	400+	--		1.5
723	1 1/2 miles southwest	Jackson, Wise and Sneddon (J. B. Wilson)	Jackson, Wise and Sneddon	1931	440	8 1/4, 6- 5/8	--	
724	1 mile southwest	Midstates Oil Corp. (M. and R. Kangerga)	Midstates Oil Corp.	--	504	6- 5/8	--	
725	1 1/4 miles southwest	Atlantic Refining Co. (Pinkston "A")	Atlantic Refining Co.	1935	511+	4	--	1.0
726	1 1/2 miles southwest	Atlantic Refining Co. (R. W. Fair)	--	--	250+	4	--	
727	1 1/2 miles southwest	British-American Oil Co. (--Murphy)	British-American Oil Co.	1931	416	8, 6- 5/8	--	
728	2 miles southwest	The Ohio Oil Co. No. 1 (C. L. Graham)	S. C. Cox	1931	1,074	8 1/4, 6	--	2.5
729	do.	The Ohio Oil Co. No. 2 (C. L. Graham)	do.	1931	110	6	--	0.5
730	1 3/4 miles southwest	Lone Pine Oil Co. (-- Pinkston)	--	1940	120	6	--	1.0
731	do.	Amerada Petroleum Corp. No. 1 (T. J. Stovall)	--	--	715	7	--	1.0
732	1 1/2 miles south	Amerada Petroleum Corp. No. 2 (T. J. Stovall)	Walter A. Meller	1938	418	5	--	
733	1 1/2 miles south	Lisbon Gasoline Co. No. 1 (E. E. Moore)	do.	1931	667	6	--	
734	do.	Lisbon Gasoline Co. No. 2 (E. E. Moore)	do.	--	486	6	--	
735	do.	The Ohio Oil Co. No. 1 (E. E. Moore)	S. C. Cox	1931	1,008	8 1/4, 6	--	

Well	Water level Below measuring point (ft.)	Date of measurement	Method of lift	Use of water (g.p.m.)	Reported a/ b/	Remarks
719	c/ 65	--	C, G, $\frac{C_1}{2}$	D, P	5	Casing: 140 feet of $3\frac{1}{2}$ -inch. Perforated casing from 140 to 153 feet.
720	--	--	None	N	--	See log.
721	--	--	C, E, 2	D, Ind.	10	Casing: 294 feet of 7-inch; 42 feet of $5\frac{1}{2}$ -inch. Perforated casing from 336 to 402 feet. See log.
722	119.65	May 7, 1940	F	D	--	
723	c/100	--	F	D	60	Casing: 4 feet of $8\frac{1}{2}$ -inch; 486 feet of 6-5/8-inch. Perforated casing from 290 to 305 and 357 to 440 feet.
724	c/200	--	A	D, Ind	--	Casing: 480 feet of 6-5/8-inch.
725	174.0	Apr. 5, 1940	C, G, 2	Ind	5	
726	--	--	C, G, 2	Ind	--	
727	--	--	C, G, 15	D, Ind	--	Perforated casing from 275 to 285, 300 to 330, end 368 to 416 feet.
728	73.81	Oct. 14, 1941	None	N	--	Casing: 793 feet of $8\frac{1}{4}$ -inch; 281 feet of 6-inch. Screen from 806 to 851 and 1,032 to 1,074 feet. See log.
729	20.79	do.	None	N	--	Casing: 1 foot of $8\frac{1}{4}$ -inch; 64 feet of 6-inch. Perforated casing from 65 to 110 feet. See log.
730	41.03	May 6, 1940	F, G	D, S, Ind	--	Casing: 120 feet of 6-inch.
731	94.45	May 6, 1940	None	N	--	Casing: 715 feet of 7-inch.
	97.76	Oct. 14, 1941				
732	c/100	--	C, E, 5	D, Ind	2	See log.
733	c/ 60	--	F	Ind	80	Perforated casing from 591 to 666 feet.
734	c/ 60	--	F	Ind	80	Perforated casing from 390 to 429 feet.
735	--	--	None	N	--	Casing: 523 feet of $8\frac{1}{4}$ -inch; 261 feet of 6-inch. Screen from 784 to 889 feet. See log.

Records of wells in Rusk County--Continued

Well	Distance from Turnertown	Owner (Lessor)	Driller	Date completed	Depth of well (ft.)	Diameter of well (in.)	Height of measuring point above ground (ft.)
736	2 $\frac{1}{4}$ miles southeast	Gant, Garvin and Egener (W. P. Moore)	--	1939	300	5	--
737	2 $\frac{1}{4}$ miles northeast	Atlantic Pipe Line Co. (W. P. Moore)	--	--	--	--	--
738	1 $\frac{3}{4}$ miles north	J. L. Collins Co. (D. Kelly)	--	1934	360+	7	1.0
739	1 $\frac{1}{2}$ miles north	Atlantic Refining Co. (I. L. Kinney)	--	1931	700+	4	--
740	1 $\frac{1}{2}$ miles northeast	Atlantic Refining Co. (-- Strickland)	Boling and Boling	1939	390	4	--
741	$\frac{1}{2}$ mile northeast	Sinclair-Prairie Oil Co. No. 1 (W. H. McCord)	L. W. Little	1933	243	7	--
742	In Carlisle	Carlisle School	Layne-Texas Co.	1940	291	7	--
743	1 $\frac{1}{2}$ miles southwest	Sinclair-Prairie Oil Co. (D. Ledbetter)	L. W. Little	1933	136	6- 5/8	--
744	$\frac{1}{2}$ mile northwest	The Ohio Oil Co. No. 1 (J. E. Mason)	Fred Fielder	1932	402	8- 5/8 6-5/8	--
745	1 mile north	Magnolia Petroleum Co. (T. C. Mason)	-- Falcon	--	400+	7	.5
746	1 mile northwest	The Texas Co. (Cora Hanna)	The Texas Co.	1931	80	5	--
747	1 $\frac{1}{2}$ miles northwest	British-American Oil Co. (J. Mayfield)	--	1931	495	6- 5/8	--
748	do.	Tide Water Associated Oil Co. No. 1.(C.B.Rollins)	Walter A. Meller	1935	451	7, 5- 3/16	--
749	2 miles northwest	Humble Oil and Refining Co. No. 1 (M. and R. Kangerga)	do.	1937	395	5 $\frac{1}{2}$	--

Well	Water level below measuring point (ft.)	Date of measure- ment	Method of lift	Use of water	Reported yield (g.m.p.)	Remarks	
						a/	b/
736	c/ 80	--	C, G, $1\frac{1}{2}$	T, Ind	40	Sand reported from 252 to 300 feet.	
Well	Water level below measuring point (ft.)	Date of measure- ment	Method of lift	Use of water	Reported yield (g.p.m.)	Remarks	
737	c/ 60	--	C, E, 4	Ind	--		
738	88.87	May 7, 1940	A, G	P	--		
739	--	--	A	Ind	--		
740	--	--	C, G, 3	Ind	--	Perforated casing from 310 to 350 feet. See log.	
741	--	--	C	Ind	15	Casing: 243 feet of 7-inch. See log.	
742	c/ 57	Jan. 16, 1941	T, E, 5	P	45	Casing: 275 feet of 7-inch. Screen from 225 to 237 and 241 to 260 feet. Underreamed and gravel-walled from 213 to 275 feet. Drawdown reported 140 feet while pumping 45 gallons a minute.	
743	--	--	C	Ind	--	Casing: 180 feet when drilled. See log. feet of 6-5/8-inch. See log.	
744	--	--	I	P, Ind	--	Casing: 60 feet of 8-5/8-inch; 264 feet of 6-5/8-inch. See log.	
745	59.81	May 6, 1940	I, G	D, Ind	--		
746	--	--	A, G	Ind	--		
747	c/ 45	--	C, G, 15	D, Ind	--	Casing: 489 feet of 6-5/8-inch. Bot- tom 2 joints perforated. Sands reported from 20 to 95, 250 to 305, 375 to 383, and 460 to 495 feet.	
748	--	--	E	Ind	--	Casing: 401 feet of 7-inch. Perfo- rated 5-5/16-inch casing from 401 to 451 feet. See log.	
749	--	--	C, E, $1\frac{1}{2}$	P	--	Casing: 310 feet of 5-inch. Screen from 310 to 378 feet. See log.	

Records of wells in Rusk County--Continued

Well	Distance from Carlisle	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
750	2 miles northwest	Sun Oil Co. No. 5 (H. Schuler "A")	Sun Oil Co.	1933	317	7, 5- 3/16	--
751	2½ miles northwest	Gulf Oil Corp. No. 1 (Mayfield "C")	C. L. Watts	1931	832	7, 5- 3/16	--
752	2 miles northwest	Sinclair-Prairie Oil Co. No. 2 (W. D. Kinney)	Layne-Texas Co.	1938	946	10 3/4	--
753	do.	The Ohio Oil Co. No. 2 (M. M. Cross)	The Ohio Oil Co.	1938	62	6	--
754	do.	The Ohio Oil Co. No. 1 (M. M. Cross)	--	1931	873	8- 5/8, 6	--
755	do.	The Ohio Oil Co. No. 6 (M. M. Cross)	--	1939	65	10	--
756	do.	The Ohio Oil Co. No. 5 (M. M. Cross)	--	1938	65	10	--

Well	Distance from Henderson Courthouse	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
758	1 mile east	City of Henderson No. 5	Layne-Texas Co.	1938	727	16, 7	1.0
759	½ mile southeast	City of Henderson test No. 3-1	do.	1942	701	4 1/2	--

Well	Water level		Method measuring point (ft.)	Date of measurement	Reported of lift <u>a/</u>	Use of water <u>b/</u>	(g.p.m.)	Remarks
	Below measuring point (ft.)	Date of measurement						
750	--	--	C,G	D	--			Casing: 254 feet of 7-inch; 21 feet of 5-3/16-inch. Perforated casing from 275 to 317 feet. See log.
751	--	--	C,E, 3	D,Ind	--			Five-and-three-sixteenth-inch screen from 710 to 829 feet. See log.
752	c/133	Feb. 8, 1938	T,E, 50	D,Ind	360			Casing: 926 feet of 10 $\frac{3}{4}$ -inch. Screens from 483 to 504, 754 to 795, and 811 to 911 feet. Underreamed and gravel-walled. Drawdown reported 111 feet while pumping 360 gallons a minute when drilled. See log.
753	--	--	F	D,Ind	--			Casing: 62 feet of 6-inch. Drilled. See log.
754	--	--	F	N	--			Casing: 789 feet of 6-inch. Perforated casing from 789 to 873 feet. See log.
755	--	--	A	Ind	--			Casing: 65 feet of 10-inch.
756	--	--	A	Ind	--			Do.

Well	Water level		Method measuring point (ft.)	Date of measurement	Reported of lift <u>a/</u>	Use of water <u>b/</u>	(g.p.m.)	Remarks
	Below measuring point (ft.)	Date of measurement						
758	154.07	Dec. 11, 1939	T,E	P	250			Casing: 375 feet of 16-inch; 504 feet of 7-inch. Screens from 499 to 572, 593 to 654, and 824 to 854 feet. Well filled with cement to 727 feet in 1942. Pumping level 270 feet while pumping 270 gallons a minute when drilled. Electrical log from 400 to 864 feet in files of Texas Board of Water Engineers
	149.71	Nov. 27, 1940						Electrical log at Austin, Texas. See log. log from 20 to 701 feet in files of Texas Board of Water Engineers, at Austin, Texas. See table of analyses for analysis of water sample taken from 634 to 647 feet. See log.
759	--	--	--	--	--			

Records of wells in Rusk County--Continued

Well	Distance from Henderson Courthouse	Owner (Lessor)	Driller	Date com- ple- ted	Depth of well (ft.)	Diam- eter of well (in.)	Height of measuring point above ground (ft.)
760	$\frac{1}{2}$ mile southwest	City of Henderson test No. 4-2	Layne-Texas Co.	1942	794	$3\frac{1}{2}$	--
761	1 mile southeast	City of Henderson test No. 5-3	do.	1942	759	$3\frac{1}{2}$	--
762	do.	City of Henderson No. 6	do.	1942	609	$16\frac{3}{4}$, $10\frac{3}{4}$	--

a/ A, air or natural gas lift; T, turbine; C, cylinder; G, natural gas or gasoline engine; E, electric. Number indicates horsepower.

Well	Water level		Method	Use	Reported	Remarks
	Below measuring point (ft.)	Date of measurement (ft.)				
760	--	--	--	--	--	Electrical log from 20 to 793 feet in files of Texas Board of Water Engineers at Austin, Texas. See table of analyses for analyses of water samples taken from 577 to 588 and 704 to 715 feet. See log.
761	--	--	--	--	--	Electrical log from 85 to 719 feet in files of Texas Board of Water Engineers, at Austin, Texas. See table of analyses for analyses of samples taken from 246 to 257, 493 to 504, 600 to 611, and 683 to 693 feet.
762	--	--	T,E, 40	P	290	Casing: 360 feet of 16-inch; 243 feet of 10 $\frac{3}{4}$ -inch. 16-inch to 483 feet; 10 $\frac{3}{4}$ -inch from 360 to 603 feet. Screen from 487 to 592 feet. Electrical log from 20 to 614 feet in files of Texas Board of Water Engineers, at Austin, Texas. Temperature 70° F. See log.

b/ Ind, industrial (usually oil field); D, domestic; F, public supply; S, stock; N, not used.

c/ Water level reported by owner or driller.

Table of drillers' logs, Rusk County, Texas

	Thickness (feet)	Depth (feet)
<u>Well 1</u>		
Tide Water Associated Oil Co., No. 2. (J. R. Beall), 2 miles northwest of Laird Hill.		
Clay	15	15
Rock	1	16
Sand	9	25
Rock	1	26
Sand	35	61
Rock	6	67
Sand and gravel	41	108
Rock	6	114
Sand and boulders	208	322
Rock	1	323
Sand and boulders	41	364
Rock	1	365
Sand and shale	128	493
Gummy shale	30	583
Sand and shale	107	690
Gummy shale	45	735
Sand and shale	65	800
Gummy shale	9	809
Shale	5	814
Sand	6	820
Rock	13	833
Sand	23	856
Rock	5	861
Sand	16	877
Rock	3	880
Sand	92	972
Screen from 929 to 972 feet.		

	Thickness (feet)	Depth (feet)
<u>Well 16--continued</u>		
Sandy shale and lime	65	615
Shale and boulders	65	680
Rock	3	683
Shale and lignite	113	796
Shale	23	819
Sand	70	889
Screens at 247-268, 283-328, 484-505 and 841-863 feet.		

	Thickness (feet)	Depth (feet)
<u>Well 22-B</u>		
Magnolia Petroleum Co., (G. W. Eaton), $1\frac{1}{4}$ miles northwest of London. Layne- Texas Co., drillers.		
Sandy clay	44	44
Clay	6	50
Sandy clay	16	66
Clay	10	76
Sand	23	99
Sandy clay	34	133
Sand and shale	22	155
Clay	5	160
Rock	3	163
Shale	13	176
Hard sand	6	182
Rock	2	184
Shale	5	189
Rock	3	192
Hard sand and shale	6	198
Hard sand and boulders	22	220
Sand and shale	13	233
Rock	4	237
Sand	97	334
Shale and streaks of lignite	76	410
Hard sand	9	419
Shale and streaks of lignite	25	444
Screen from 246 to 334 feet.		

	Thickness (feet)	Depth (feet)
<u>Well 31-A</u>		
Shell Oil Company Inc., (W. P. Moore), $1\frac{1}{2}$ miles northwest of Sexton City. Layne-Texas Co. drillers.		
Clay	15	15
Shale and boulders	73	88
Sand	24	112
Hard shale	53	165
Good sand	38	203
Shale and lignite	3	206
(Continued on next page)		

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 31-A--continued</u>					
White sand	26	232			
Fine-grained sand	20	252			
Sandy shale	97	349			
Packsand	20	369			
Screen from 165 to 247 feet.					
<u>Well 31-B</u>					
Tide Water Associated Oil Co., No. 2. (W. F. Moore), 1½ miles northwest of Sexton City. L. W. Little, driller.					
Red clay	18	18			
Sand and shale	31	49			
Shale	33	82			
Sand	7	89			
Boulders	23	112			
Sand	28	140			
Sandy shale	63	203			
Sand	70	273			
Sandy shale	65	338			
Sand	26	364			
Sandy shale	86	450			
Shale	45	495			
Sand	19	514			
Shale	118	632			
Sand	127	750			
Shale	1	760			
Sand	8	768			
Shale	38	806			
Sand	74	880			
Casing perforated at 338-364, 495-514, 632-739, 760-768 and 806-810 feet.					
<u>Well 32</u>					
Gulf Pipe Line Co. (W. Florence), 2 miles northwest of Sexton City. Benson Drill- ing Co., driller.					
Surface soil	20	20			
Sand	25	45			
Shale	17	58			
Sandy shale	17	75			
Rock	1	76			
Sticky shale	27	103			
Rock	2	105			
Sand and boulders	9	114			
Hard sand rock	9	123			
Rock	2	125			
Sandy shale	8	133			
Rock	1	134			
Sandy shale	7	141			
<u>Well 32--continued</u>					
Rock			1	147	
Sand			64	206	
Sandy shale			14	220	
Hard shale			7	227	
Shale and boulders			23	250	
Hard sand rock			15	265	
Sand			15	280	
Lignite and sand streaks			10	290	
Lignite			23	313	
Sandy shale			23	336	
Lignite			4	340	
Sandy shale			48	388	
Hard sand rock			6	394	
Shale			14	408	
Sandy shale			10	418	
Sand and shale			112	530	
Gumbo			10	540	
Shale			20	560	
Sticky shale			20	580	
Packsand			8	588	
Gray sand			17	605	
Hard sand			25	630	
Sand			60	690	
Rock			4	694	
Gumbo			10	704	
Sandy shale			64	768	
Sand and lignite			22	790	
Lignite			16	806	
Sand			12	818	
Brken sand and lignite			32	850	
Gumbo			5	855	
Rock			5	860	
Sand and lignite			20	880	
Rock			6	886	
Sand			144	1030	
Gumbo			3	1033	
Screen 895 to 1,032 feet.					
<u>Well 33</u>					
Tide Water Associated Oil Co., No. 1 (M. R. Terrell), 1³ miles southwest of Laird Hill.					
Surface material			4	4	
Yellow clay			12	22	
Sand			14	36	
Sandy shale			36	72	
Shale			9	81	
Sand			46	127	
Shale			115	242	
Screen from 81 to 127 feet.					

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 43</u>			<u>Well 47--continued</u>		
Gulf Oil Corp. No. 2 (W. E. Peterson), $\frac{3}{4}$ mile north of Laird Hill. Fred Fielder, driller.					
Clay	22	22	Hard green sand	19	90
Shale and boulders	82	104	Hard shale	78	168
Rock	6	110	Gray shale	10	178
Gumbo	294	404	Lignite	15	193
Sand and lignite	48	452	Sticky shale	26	221
Shale	75	487	Sandy shale	33	254
Rock	1	488	Hard shale	73	292
Sale	104	602	Soft shale	17	309
Sandy shale	46	736	Fine-grained gray sand	11	520
Sand	7	735	Shale and boulders	30	550
Lignite	7	742	Fine-grained gray sand and lignite	27	573
Shale	36	778	Hard shale and lignite	34	467
Sand	8	786	Gray sand	8	715
Shale	38	824	Hard shale and lignite	28	458
Rock	3	827	Tough sticky shale	23	460
Water sand	68	890	Gray sand	15	481
Shale	12	902	Shale and boulders	38	519
Sand	20	922	Gumbo	13	532
Screens from 827 to 922 feet.			Soft shale	10	542
<u>Well 44</u>			Gumbo	10	552
Tide Water Associated Oil Co., Inc. 1 (Metzen), $1\frac{1}{4}$ miles northeast of Laird Hill. L. W. Little, driller.			Rock	3	555
Surface soil	3	3	Gumbo	10	565
Red shale	22	25	Rock	3	568
Blue shale	150	175	Hard sand and shale	11	579
Sand	48	223	Gumbo and boulders	7	586
Sand and shale	53	276	Tough shale	15	539
Sand	13	292	Rock	2	691
Blue shale	114	406	Sandy shale and boulders	44	645
Sand	8	414	Shale and lignite	45	690
Sand and shale	60	480	Sand and lignite	12	702
Sand	35	565	Shale and sticky sand	27	729
Shale	15	580	Shale and lignite	22	751
Water sand	96	676	White sand	44	795
Screens at 460-535 and 580-676 feet.			Shale and lignite	12	807
<u>Well 47</u>			Screens at 345-396 and 746-791 feet.		
Marmolia Petroleum Co. (Dick Wells), $1\frac{1}{2}$ miles southeast of Laird Hill. Levine-Texas Co., drillers.			<u>Well 47-A</u>		
Surface soil	1	1	Surface soil	1	1
Sandy clay	15	16	Sandy clay	15	16
Sand	33	54	Sand	15	122
Shale and boulders	63	117	Shale and boulders	63	195
Sand	15	122	White pecksand	12	207
Shale and boulders	63	195	Shale, boulders and lignite	61	368
Green sand	6	30	Gray sand	109	477
Shale and boulders	5	71	(Continued on next page)		

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 47-A--Continued</u>			<u>Well 88-Continued</u>		
Shale and lignite	79	556	Shale and sand	14	610
Rock	12	558	Hard sand rock	3	613
Shale and boulders	73	641	Shale and lignite	129	742
Fine-grained gray sand	20	661	Broken sand	18	760
Shale and lignite	13	674	Soft sand	30	790
Fine-grained gray sand	123	799	Hard sand	10	800
Shale, boulders and lignite	210	1009	Soft shale	7	807
Screens at 378-445, 740-762 and 775-797 feet.			Sand	28	835
			Screen from 745 to 830 feet.		
<u>Well 51-A</u>			<u>Well 299-A</u>		
Gulf Oil Corp. (C. M. Jernigan), 1½ miles northwest of Sexton City. McQueen and Clevenger, drillers.			Humble Oil and Refining Co. No. 1 (Ida Holt "B"), 1½ miles northeast of London. Layne-Texas Co., drillers.		
Clay	30	30	Clay	2	2
Shale and boulders	90	120	Rock	1	3
Water sand	25	145	Clay	8	11
Casing slotted from 123 to 145 feet.			Sand and boulders	16	29
<u>Well 88</u>			Clay	6	35
Humble Oil and Refining Co. No. 2 (J. P. Peterson), 1½ miles west of Laird Hill. W. B. Hamilton, driller.			Shale and boulders	50	93
Surface material	8	8	Rock	3	96
Hard sand	26	34	Shale	19	115
Hard sand rock	4	38	Rock	2	117
Broken sand	32	70	Shale	22	129
Shale	30	100	Shale and boulders	29	168
Hard sandy lime	3	103	Gray sand	10	178
Hard sand	2	105	Sandy shale	33	211
Shale	5	110	Gray sand	15	226
Shale and sand	150	290	White sand	85	311
Soft sand	40	330	Shale	6	317
Sandy shale	37	387	Screen from 235 to 315 feet.		
Shale	10	397	<u>Well 315-A</u>		
Broken sand and shale	22	420	Gulf Oil Corp. No. 1 (G. C. Turner), 1 mile northwest of London. McMasters and Pomeroy, drillers.		
Hard lime shells	1	421	Soil and clay	18	18
Hard sand	14	435	Sand and boulders	17	35
Shale	65	500	Sand rock	1	56
Sandy shale	71	571	Sand	16	52
Shale	25	596	Sand, clay and boulders	17	69

(Continued on next page)

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)		
<u>Well 315-A--Continued</u>					<u>Well 315-A--C ntinued</u>		
Packsand	10	109	Gumbo	3	727		
Sand and boulders	5	114	Sand and lignite	5	732		
Sand and clay	45	159	Gumbo	4	736		
Sand	24	183	Sand, gumbo and lignite	11	747		
Gumbo	6	189	Sand, shale and boulders	21	768		
Sand and shale	29	218	Sand	5	773		
Sand	5	223	Rock	5	778		
Sand and boulders	11	234	Sand	42	820		
Packsand	25	259	Gumbo and boulders	3	823		
Sand and shale	7	266	Sand	31	854		
Sand	20	286	Sand and shale	4	856		
Gumbo	18	304					
Sand	21	325	<u>Well 316-A</u>				
Gumbo and boulders	7	332	Tide Water Associated Oil Co. No. 1				
Sand and lignite	37	369	(L. J. Finkston "A"), $\frac{1}{2}$ mile northeast				
Packsand	20	389	of London. L. W. Little, driller.				
Sand	9	598	Surface material	5	5		
Gumbo	5	403	Yellow shale	7	12		
Sand	23	426	Blue shale	10	22		
Gumbo	11	437	Shale	44	66		
Sand	21	458	Shells	1	67		
Gumbo	5	463	Sandy shale	50	117		
Sand	26	489	Shells	1	118		
Packsand	3	492	Sandy shale	24	142		
Gumbo and boulders	5	497	Brown shale	60	202		
Sand	7	504	Shells	2	204		
Gumbo	4	508	Blue shale	81	285		
Sand	5	513	Sandy shale	35	320		
Gumbo	3	516	Hard sand	28	348		
Sand	18	534	Shale	63	411		
Sand	9	542	Brown shale	23	474		
Packsand	7	549	Sandy shale	43	477		
Sand, gumbo and boulders	13	562	Blue shale	45	572		
Sand	5	567	Sandy shale	21	543		
Packsand and lignite	11	578	Sand	47	590		
Sand and boulders	21	609	Sandy shale	24	614		
Sand and lignite	13	622	Sand	41	855		
Packsand and lignite	7	629	Shale	23	678		
Sand rock	2	631	Sand	60	738		
Packsand	5	636	Casing perforated from 508 to 708 feet.				
Gumbo and lignite	8	644	Well reworked.				
Sand, gumbo and boulders	15	659					
Gumbo	7	666					
Sand and lignite	58	724					

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 316-B</u>					
Tide Water Associated Oil Co. No. 1 (J. M. Shaw), 1 mile northeast of London.		L. W. Little, driller.			
Surface material	4	4			
Red clay	3	12			
Sand rock	4	16			
Sandy shale	86	102			
Sand rock	7	103			
Shale	12	121			
Sandy shale	25	146			
Sand	148	284			
Shale	73	367			
Sandy shale	34	401			
Sand	52	453			
Shale	37	490			
Sandy shale	47	527			
Shells	1	538			
Shale	43	561			
Sand	53	634			
Sandy shale	53	687			
Sand	26	713			
Casing perforated from 511 to 713 feet.					
<u>Well 331-A</u>					
Tide Water Associated Oil Co. No. 1 (Julia Finney), 1½ miles northeast of London.		L. W. Little, driller.			
Surface material	12	12			
Yellow clay	16	28			
Water sand	4	32			
Sandy shale	16	48			
Dark shells	1	49			
Brown shale	38	87			
Sandy shale	36	123			
Brown shale	23	146			
Sand	89	235			
Shale	52	287			
Sandy shale	56	343			
Sand	35	378			
Sandy shale	64	442			
Sand	55	497			
Shale	38	535			
Sand	55	590			
Shale	18	608			
Sand	46	654			
Shale	4	658			
Sand	2	660			
Casing perforated from 460 to 660 feet.					
<u>Well 336-A</u>					
Humble Oil and Refining Co. No. 1 (W. and R. Vangerva "I"), 1½ miles northwest of					
<u>Well 346-A--continued</u>					
Turnertown, Lawrence-Texas Co., drillers.					
Clay		34			
Rock		1			
Clay		9			
Shale		72			
Gray sand		23			
White sand		69			
Shale		61			
Sand		10			
Shale		66			
Fine-grained gray sand		117			
Rock		1			
Shale		9			
Screen from 139 to 199 feet.					
<u>Well 341-A</u>					
Tide Water Associated Oil Co. No. 1 (J. R. Irion), 1 mile west of Turnertown.		L. W. Little, driller.			
Surface material	2	2			
Red clay	15	17			
Sand	11	28			
Sandy shale	6	34			
Sand	31	65			
Sandy shale	71	136			
Sand	4	140			
Sandy shale	86	226			
Shells	1	227			
Shale	14	241			
Sandy shale	43	284			
Sand	67	351			
Shale	8	359			
Sand	5	364			
Casing slotted opposite sands at 284-351 and 359-364 feet.					
<u>Well 348-A</u>					
Stanolind Oil and Gas Co. No. 1 (Melinda Schuler), 1½ miles north of Carlisle.		E. C. Benson, driller.			
Surface soil	2	2			
Sandy clay	14	16			
Dry gravel	4	20			
Sand and gravel	94	114			
Sticky shale	3	117			
White sand	52	169			
Shells	1	170			
Sand	15	185			
Shale	5	190			
Shale and lignite streaks	80	270			
Sand	29	299			

(Continued on next page)

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 348-A--continued</u>			<u>Well 414--continued</u>		
Rock	1	300	Sand	9	27
Sandy shale	88	388	Sand and lignite	23	50
Sand, lignite and shale	94	482	Rock	1	51
Water sand	78	560	Hard sandy shale	49	100
Gumbo	11	571	Rock	1	101
Sandy shale	4	575	Gumbo	31	132
Shells	1	576	Lignite	11	143
Sand and lignite streaks	24	600	Brown shale	13	156
Water sand	147	747	Gumbo	36	192
Lignite	15	762	Fine-grained sand	20	212
Water sand	82	844	Gumbo	26	238
Rock	11	855	Shale and lignite	32	270
Water sand	25	880	Fine-grained sand	27	297
Rock	1	881	Gummy shale	37	334
Sandy shale	20	901	Fine-grained gray sand	33	370
Hard sand	25	926	Gummy shale	33	403
Casing slotted at 147-162, 260-293, 506-557 and 652-745 feet.			Gumbo	29	472
			Brown shale	23	455
			Gumbo	13	468
			Fine-grained water sand	32	550
			Brown shale	29	579
			Gumbo	18	597
			Shale	18	615
			Shale and lignite	25	640
			Shale and boulders	32	672
			Gumbo	9	681
			Shale and boulders	92	773
			Shale and lignite	27	800
			Sandy blue shale and lignite	20	820
			Water sand	40	860
			Gumbo	77	937
			Shale, gumbo and boulders	63	1000
<u>Well 389-A</u>			<u>Well 415</u>		
Magnolia Petroleum Co. No. 1 (Dan Kelly), 1½ miles north of Carlisle. Layne-Texas Co., drillers.			City of Henderson No. 2, in Henderson, 1 mile southeast of courthouse. Layne-Texas Co., drillers.		
Sandy clay	18	18	Sandy yellow clay	30	30
Fine-grained sand	3	21	Sandy shale	33	63
Water sand	93	119	Sand and lignite	15	78
Clay	12	131	Shale and lignite	29	107
Lignite and shale	5	136	Sandy blue shale and lignite	30	157
Rock	3	139	Fine-grained gray sand	32	169
Shale	15	154	Rock	2	171
Lignite and shale	13	167	Sandy shale and lignite	48	219
Shale	9	176	Hard shale	37	256
Shale and streaks of hard sand	22	198	Fine-grained gray sand	40	296
Sand	18	216	Hard sandy shale	11	307
Sandy clay	5	221	Hard shale	13	320
Shale	4	225	Soft gray sand	26	346
Fine-grained sand	17	243			
Rock	5	247			
Hard shale	15	262			
Fine-grained sand	21	283			
Rock	3	286			
Sand and shale	20	300			
Hard sand	9	315			
Rock	2	317			
Screen from 28 to 119 feet.			(Continued on next page)		
<u>Well 414</u>					
City of Henderson test well, in Henderson, 1 mile east of courthouse. I. D. White, driller.					
Clay	18	18			

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 415--continued</u>					
Sand, rock and shale	4	350			
Fine-grained sand	64	414			
Hard shale and gumbo	30	444			
Gray sand	72	516			
Hard sandy shale	10	526			
Gray sand	34	530			
Sand and lignite	62	622			
White sand	16	638			
Shale and sand	42	686			
Casing slotted from 448 to 558 feet.					
<u>Well 416</u>					
City of Henderson No. 4, in Henderson, 1 mile southeast of courthouse. Layne- Texas Co., drillers.					
Clay	10	10			
Yellow sand	10	30			
Sandy shale	80	100			
Shale and lignite	45	145			
Fine-grained sand	15	160			
Sandy shale and lignite	92	252			
Fine-grained sand	10	268			
Shale and lignite	35	295			
Sand	20	315			
Rock	1	316			
Sandy shale	49	365			
Shale	55	400			
Gray sand	12	412			
Shale	15	427			
Sand	52	479			
Shale	3	482			
Sand	78	560			
Brown shale and lignite	23	583			
<u>Well 627</u>					
Tide Water Associated Oil Co. No. 1 (J. S. Peall), 2 miles northwest of Laird Hill.					
Sand and clay	45	45			
Rock	2	47			
Sand and gravel	5	52			
Rock	2	54			
Shale and sand	54	108			
Rock	1	109			
Sandy shale	172	281			
Water sand	9	290			
Screen from 247 to 290 feet.					
<u>Well 628</u>					
Laird Hill. Layne-Texas Co., drillers.					
Red clay	25	25			
Rock	1	26			
Gray sand	28	54			
Rock	1	55			
Soft brown shale	47	102			
Soft gray shale and fine- grained sand	60	162			
Soft gray shale	91	253			
Light gray fine-grained sand	39	292			
Soft shale	5	297			
Light gray sand	55	352			
Soft shale	7	359			
Good water sand	10	369			
Thin layers of soft shale and sand	28	797			
Good water sand	16	413			
Hard blue shale	24	437			
Screen from 354 to 437 feet.					
<u>Well 629</u>					
Gulf Oil Corp. No. 3 (M. E. Peterson), ½ mile north of Laird Hill. Layne-Texas Co., drillers.					
Surface material	4	4			
Clay	3	7			
Sand	15	22			
Clay	32	54			
Shale	5	59			
Sand	8	67			
Shale	33	100			
Rock	2	102			
Shale	16	118			
Sand	18	136			
Shale	4	140			
Rock	1	141			
Shale	13	154			
Sandy shale	9	158			
Rock	2	165			
Shale and boulders	25	190			
Layers of shale and sand	23	217			
Hard shale	20	237			
Shale and lignite	29	268			
Sand	15	277			
Sandy shale	8	285			
Sand	16	301			
Sandy shale	45	346			
Sand	94	440			
Screen from 740 to 440 feet.					

Tide Water Associated Oil Co. No. 2 (Flat
Peen "Y"), 1½ miles northeast of

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 631</u>					
Humble Oil and Refining Co. No. 2 (R. F. Laird "A"), in Laird Hill. Layne-Texas Co., driller.					
Red clay	10	10			
White sand	30	40			
Brown shale	80	120			
Hard rock	1	121			
Sand	12	132			
Shale	18	151			
Hard rock	1	152			
Shale	7	159			
Rock	1	160			
Sand	48	208			
Soft shale	26	234			
Hard shale	16	250			
Sand and shale layers	62	312			
Sand	26	358			
Sand and shale layers	28	366			
Lignite	10	376			
Fine-grained gray sand	35	411			
Shale and layers of lignite and sand	39	450			
Sand and layers of shale	22	472			
Sandy shale	82	554			
Lignite	1	555			
Shale	95	650			
Lignite	1	651			
Sandy shale	20	671			
Lignite	2	673			
Sandy shale	20	693			
Lignite	1	694			
Sandy shale	18	712			
Sandy shale and shale	8	720			
Sandy shale	39	759			
Fine-grained hard sand and sandy shale	51	810			
Sticky sand and sandy shale	16	826			
Shale	8	834			
Poof	1	855			
Sandy shale and shaley sand	34	869			
Hard sandy shale	14	883			
Layers of white sand and shale sand	6	889			
Screen at 319-342, 385-407, 429-452, 730-752 and 841-872 feet.					
<u>Well 632</u>					
Humble Oil and Refining Co. No. 1 (R. F. Laird "B"), in Laird Hill. Walter A. Meller, driller.					
Surface sand and clay	49	49			
Shale	45	94			
Sandy shale and boulders	45	139			
<u>Well 632--continued</u>					
Shale and boulders	22	161			
Gumbo	45	206			
Hard shale	46	252			
Hard gray shale	86	338			
Sand	22	360			
Sand and lignite	23	383			
Sandy shale	68	451			
Sand	48	499			
Broken sand and shale	20	519			
Hard sand	15	534			
Gumbo	16	550			
Sandy shale	135	685			
Sand	65	750			
Shale	26	776			
Screen at 460-520, 470-484 and 695-741 feet.					
<u>Well 633</u>					
Sinclair-Prairie Oil Co. (Major Kennedy "C"), 1½ miles southeast of Laird Hill. Walter A. Meller, driller.					
Clay and sand	15	15			
Sand	31	46			
Broken shale	42	88			
Gumbo	43	131			
Shale	9	140			
Sandy shale	14	154			
Gumbo	6	160			
Sand	4	164			
Rock	1	165			
Sandy shale	25	190			
Sand	24	214			
Gumbo	18	232			
Shells and gumbo	47	279			
Shale and gumbo	66	745			
Sandy shale (water)	50	795			
Sand	65	460			
Sand, shells and gumbo	6	466			
Shale and gumbo	34	500			
Screen from 431 to 500 feet.					
<u>Well 643</u>					
Midstates Oil Corp. (Brightwell "B"), 2 miles southwest of Laird Hill.					
Clay	15	15			
Sand and shells	80	95			
Shale	11	106			
Shale, shells and streaks of sand	394	500			
Sandy shale	28	528			
Sandy shale and shells	207	735			
(Continued on next page)					

Table of drillers' logs, Puck County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)		
<u>Well 643--continued</u>							
Hard sand	36	765	Shale	5	75		
Coarse-grained water sand	19	784	Sand	5	80		
Shale	11	795	Shale	10	90		
Water sand	5	800	Sand	11	100		
Shale	20	829	Shale	30	130		
<u>Casing perforated from 744 to 829 feet.</u>							
<u>Well 646</u>							
Tide Water Associated Oil Co. (W. H. Jernigan), 2 miles north of Sexton City.			Shale	10	540		
Sand and shale	172	172	Sand	8	548		
Water sand	10	182	Shale	52	600		
Shale	121	303	Sand	8	603		
Water sand	9	312	Shale	12	630		
Shale	3	320	Sand	3	623		
Water sand	50	370	Shale	2	625		
Shale	34	404	Sand	27	652		
Water sand	6	410	Shale	73	725		
Shale	40	450	Water sand	15	740		
Water sand	15	465	Shale	5	745		
Shale	5	470	<u>Casing perforated from 155 to 172 feet and at 155-210 and 654-674 feet.</u>				
Water sand	4	474	<u>Well 651</u>				
Shale	21	495	Devonian Oil Co. (R. I. Metlev), 2 miles				
Water sand	45	540	west of Sexton City. Walter A. Heller, driller.				
Shale	3	542	Clay	11	11		
<u>Well 647</u>			Sand	52	64		
Tide Water Associated Oil Co. No. 1 (E. F. Lepprett), 1½ miles north of Sexton City. Fred Fielder, driller.			Gumbo	27	91		
Sandy clay	35	55	Shale and boulders	113	207		
Blue shale	235	270	Water sand	64	291		
Lignite on sand	15	285	Shale	52	343		
Sand	15	300	<u>Well 652</u>				
Rock	3	305	City of Overton No. 3, in Overton, Layne-Texes Co., driller.				
Culto	37	370	Sandy clay	15	15		
Rock	2	372	Sand	12	27		
Lignite and sand	28	400	Sandy shale	16	37		
Sandy gray shale and streaks of sand	486	886	Brown shale	60	106		
Water sand	139	1075	Pock	1	107		
<u>Casing perforated from 834 to 1,075 feet.</u>			Brown shale	45	150		
<u>Well 648</u>			Pock	1	151		
Tide Water Associated Oil Co. No. 1 (C. O. Christian), 1½ miles northwest of Sexton City. F. W. Murray, driller.			Shale	7	154		
Surface material	3	7	Rock	1	155		
Shale	3	6	Shale and sandy shale	8	163		
Quicksand	2	12	Hard green sand	6	169		
Gumbo	38	50	Rock	1	170		
			Hard green sand	9	179		
			Pock	1	180		

(Continued on next page)

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 652--continued</u>					
Sandy green shale	10	196	Pack	1	176
Shale	4	194	Sand	53	229
Sandy shale and boulders	10	204	Shale	23	252
Sandy shale and shale	15	219	Sand	92	344
White sand and a few streaks of shale and lignite	85	304	Lignite, shale and sand	31	375
Sandy shale and lignite	7	307	Sand	10	385
White sand	21	328	Lignite and sand	24	409
Shale	10	338	Fine-grained sand, lignite and shale	46	455
Screen at 246-280 and 309-330 feet.			Shale	62	517
<u>Well 653</u>					
Humble Oil and Refining Co., No. 2 (P. E. L. Silver "I"), 1½ miles south of Sexton City. Larne-Texas Co., driller.			Screen from 414 to 503 feet.		
Ped clay	5	5	<u>Well 655</u>		
Sandy clay	17	22	Humble Oil and Refining Co., No. 3 (Id Welt "P"), 1½ miles northeast of London. Walter A. Weller, driller.		
White sand	14	33	Surface material and sand	16	80
Sandy shale	24	70	Blue shale	57	137
Rock	1	21	Boulders	2	189
Shale	122	135	Blue shale	44	183
Shale and boulders	29	212	Loose shale	48	231
Sandy shale	19	231	Sand	79	310
Sand	36	311	Gumbo	75	385
Rock	2	315	Shale	53	438
Shale	8	321	Water sand	95	535
Rock	3	324	Shale	1	534
Sandy shale	70	334	Screen from 414 to 521 feet.		
Lignite	7	331	<u>Well 656</u>		
Shale and streaks of lignite	44	405	Humble Oil and Refining Co., No. 4 (Id Welt "P"), 1½ miles northeast of London. Larne-Texas Co., driller.		
Rock	1	407	Shale, rock and clay	141	141
Shale	15	421	Shale and boulders	59	206
Rock	2	425	Sandy shale	28	228
Sand and layers of shale	88	511	White sand and shale	155	388
Shale	88	590	Rock	1	384
Screen from 451 to 535 feet.			Sand and shale	90	474
<u>Well 654</u>			Sand, shale and lignite	66	540
Humble Oil and Refining Co., No. 1 (P. E. L. Silver "I"), 1½ miles south of Sexton City. Fred Fielder, driller.			Sand and shale	10	550
Sand	55	65	Sandy shale	46	596
Sandy shale	50	115	Screen from 453 to 577 feet.		
Shale	20	135	<u>Well 657</u>		
Rock	1	136	Humble Oil and Refining Co., No. 2 (Id Welt "P"), 1½ miles northeast of London. Humble Oil and Refining Co., driller.		
Shale	9	145	Clay and boulders	50	50
Rock	1	146	Clay and sand	121	171
Shale	13	159	Boulders	3	174
Rock	1	170	(Continued on next page)		
Sand	15	171			

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Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)		
<u>Well 657--continued</u>					<u>Well 651</u>		
Sandy shale	22	196	Gulf Oil Corp., No. 3 (T. P. Cashen), $2\frac{1}{2}$ miles northwest of London, LaMere-Texes Co., driller.				
Shale	24	220	Surface soil	4	4		
Sandy shale	17	277	Sand	24	23		
Sand	35	320	Sandy clay	20	48		
Shale	3	323	Sand and shale	26	74		
Sand and gravel	3	324	Shale	41	115		
Shale	32	362	Rock	1	116		
Screen from 213 to 351 feet.					Shale		
<u>Well 658</u>					42		
New London School, $\frac{3}{4}$ mile northeast of London. LaMere-Texes Co., driller.					Rock		
Sandy red clay	15	15	Shale	1	159		
Rock	1	16	Shale	19	173		
Fine-grained sand	12	28	Shale and boulders	9	187		
Good water sand	65	98	Shale	11	198		
Shale	23	113	Black sand	10	214		
Black shale	12	128	Shale	13	227		
Hard rock	2	150	White sand	73	300		
Hard black shale	32	162	Shale	2	302		
Shale	60	231	Sand	22	324		
Sand	84	515	Shale	4	328		
Shale	7	522	Screen from 265 to 325 feet.				
Pock	2	524	<u>Well 662</u>				
Shale	132	456	Gulf Oil Corp. No. 1 (T. P. Cashen), $2\frac{1}{2}$ miles northwest of London, Walter L. Weller, driller.				
Sand	60	516	Sand and clay	40	40		
Shale	10	526	Sandy shale	78	118		
Rock	1	527	Rock	5	121		
Shale	10	537	Sandy shale	21	142		
Screen from 452 to 535 feet.					Pock		
<u>Well 660</u>					Shale	14	145
Gulf Oil Corp. No. 2 (T. P. Cashen), $2\frac{1}{2}$ miles northwest of London. Fred Fielder, driller.					Pock		
Surface sand	2	2	Gumbo	25	183		
Ped clay	6	3	Rock	2	185		
Sandy clay	27	35	Shale	7	192		
Blue shale	81	116	Rock	1	193		
Sandy gray shale	59	155	Shale	3	195		
Shale and boulders	25	180	Shale and boulders	11	207		
Hard black sand	18	198	Shale and boulders	80	287		
Black water sand	37	235	Hard sand	18	300		
White water sand	45	280	Shale and boulders	20	320		
Hard sandstone	2	282	Gumbo and hard sand	30	350		
Water sand	78	360	Shale and boulders	10	360		
Brown sand	25	385	Hard sand	40	400		
Hard sand	20	405	Gumbo	20	420		
Lignite	2	407	Shale and boulders	30	450		
Sand	28	435	Hard sand	14	464		
Brown shale	19	454	Hard sand and rock	1	465		
Casings perforated from 317 to 420 feet.					Rock	1	466
					Gumbo	24	490
					(Continued on next page)		

Table of drillers' logs, Pusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 662--continued</u>					
Shale and streaks of lignite and sand	164	354			
Sand	30	684			
Sandy shale	7	691			
Gumbo	21	712			
Shale	54	766			
Hard sand	37	803			
Hard shale	31	834			
Gumbo	8	842			
Fine-grained broken sand	35	877			
Lignite	4	881			
Sand	3	890			
Gumbo	20	910			
Casing perforated from 875 to 880 feet.					
<u>Well 663--continued</u>					
Cray water sand	41	633			
Sandy shale	12	675			
Casing perforated at 259-274 and 311-316 feet.					
<u>Well 677</u>					
Stanclind Oil and Gas Co. (J. B. Wilstcad), $\frac{3}{4}$ mile southeast of London.					
Walter F. Weller, driller.					
Clay	15	15			
Sand	22	57			
Shale and boulders	126	138			
Hard sand	8	171			

Well 663

Stanclind Oil and Gas Co. (W. C. Alford),
2½ miles northwest of London. Walter A.
Meller, driller.

Sand
Sandy clay
Red sand
Sandy clay
White sand
Gray sand
Sand and clay
Chocolate-colored clay
Sand
Chocolate-colored clay
Sand
Brown clay
Rock
Clay
Sand
Clay
White water sand
Sandy clay
White water sand
Tough gray clay
Clay and streaks of white sand
Sand and thin clay streaks
Sandy clay
Sand, clay streaks
Sand
Clay
Fine-grained sand, clay
Tough clay
Sandy clay
Tough clay
Shale with boulders
Fine-grained hard sand
Hard sand rock

Tell 665--continued

Gray water sand 41 - 633
 Sandy shale 12 - 675
 Casing perforated at 259-274 and 511-536
 feet.

Call 617

Stanclind Oil and Gas Co. (J. R. Wilstead), $\frac{3}{4}$ mile southeast of London. Walter F. Weller, driller.	
Clay	15 : 15
Sand	22 : 37
Shale and boulders	126 : 132
Hard sand	8 : 171
Gumbo	49 : 220
Fine-grained water sand	31 : 251
Shale and boulders	79 : 330
Water sand	25 : 35%
Shale	35 : 300

Wall 682

Pared Gasoline Co., No. 3, 1½ miles northeast of Turnertown. Layne-Texas Co., drillers.		
Sandy red clay	15	15
Sand and clay streaks	18	58
Soft shale with breaks of sand	43	78
Rock	1	80
Soft shale	12	92
Hard shale and streaks of sand	13	105
Rock	1	106
Fine-grained grey sand	11	117
White sand	6	123
Fine-grained grey sand	8	131
Rock	1	132
Fine-grained grey sand	13	145
Sand	85	230
White sand and layers of shale	8	238
White sand	13	251
Lignite	5	254
Shale	36	290
Sandy shale	21	311
Lignite	6	317
Sand and shale	40	357
Rock	2	359
Sandy shale	23	382
Grey sand	64	443
Shale	93	539
Sandy shale	6	545

(Continued on next page)

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Table of drillers' logs, Rush County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 682--continued</u>					
Rock	2	547			
Sandy shale	47	594			
Shale	6	600			
Screen from 360 to 443 feet.					
<u>Well 687</u>					
Sinclair-Prairie Oil Co. (J. R. Wilson), 2 miles west of Turnertown. Walter F. Meller, driller.					
Clay	19	19			
Sand	184	203			
Sandy shale	107	310			
Water sand and boulders	45	355			
Water sand	65	421			
Water sand and boulders	41	465			
Gumbo	2	467			
Casing perforated from 367 to 467 feet.					
<u>Well 690</u>					
Beacon Oil and Refining Co. (C. C. Giles), $\frac{1}{4}$ mile east of Turnertown. Walter F. Meller, driller.					
Not given	130	180			
Shale	50	180			
Water sand	20	200			
Shale	104	304			
Water sand	72	376			
<u>Well 700</u>					
Sun Oil Co. (R. J. Hender), 3 miles southeast of Turnertown. Sun Oil Co., drillers.					
Surface material	30	20			
Rock sand	60	80			
Shale	178	258			
Water sand	46	304			
Casing perforated from 254 to 304 feet.					
<u>Well 701</u>					
Atlantic Refining Co. (Arnold), $1\frac{1}{4}$ miles southeast of Turnertown. Boling and Boling, drillers.					
Shale	145	145			
Quicksand	65	210			
Lignite and sandy shale	135	345			
Gray water sand	30	375			
Sandy shale	23	408			
Casing perforated from 336 to 376 feet.					
<u>Well 708</u>					
The Chic Oil Co. No. 3 (S. E. Moore), 1 mile south of Turnertown.					
Clay	15	15			
Clay and sand	70	3'			
Sandy shale	32	147			
Sand	50	197			
Rock	1	193			
Screen from 157 to 198 feet.					
<u>Well 711</u>					
The Chic Oil Co. No. 2 (S. E. Moore), 1 mile south of Turnertown.					
Clay	20	20			
Shale and sand	70	90			
Sand	105	195			
Sand and lignite	80	284			
Screen from 223 to 284 feet.					
<u>Well 712</u>					
Midstates Oil Corp. No. 2 (A. J. Deason), $\frac{3}{4}$ mile southeast of Turnertown. Walter F. Meller, driller.					
Surface material	10	10			
Clay	8	18			
Sand	10	28			
Shale	7	35			
Packsand	6	41			
Shale	75	116			
Water sand	76	192			
Gumbo	33	225			
Casing perforated from 157 to 200 feet.					
<u>Well 713</u>					
Midstates Oil Corp. No. 1 (A. J. Deason), $\frac{3}{4}$ mile southeast of Turnertown. Walter F. Meller, driller.					
Soil and red clay	9	9			
Sand	7	16			
Shale	11	27			
Sand and boulders	1	23			
Shale	11	39			
Sand	7	46			
Gumbo	38	84			
Shale	50	134			
Water sand	47	181			
Gumbo	10	191			
Packsand	26	217			
Gumbo	2	219			
Casing perforated from 157 to 196 feet.					

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Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)			
<u>Well 716</u>								
Atlantic Refining Co. No. 2 (C. Young "F"), $\frac{1}{2}$ mile southeast of Turnertown, Bill Belair, driller.			Sandy shale	36	308			
Clay and shale	120	120	Peaksand	10	318			
Quicksand	30	300	Sand	84	402			
Gray shale	45	245	Casing perforated from 336 to 402 feet.					
Lignite and sand	10	255	<u>Well 721--continued</u>					
Brown shale	15	270	The Chic Oil Co. No. 1 (C. L. Graham), 2 miles southwest of Turnertown, S. C., Cox, driller.					
Lignite and sand	5	275	Clay and sand	50	50			
Gum shale	15	290	Shale and sand	30	80			
Gray shale	15	305	Water sand	40	120			
Lignite and sand	5	310	Shale	295	415			
Sand and sandy shale	60	370	Rock	1	416			
Gray shale	35	405	Shale and boulders	71	487			
Broken shale	62	427	Rock	5	492			
Water sand	76	543	Gummy shale	108	600			
Casing perforated from 450 to 520 feet.			Rock	1	601			
<u>Well 717</u>			Gummy shale	109	710			
Atlantic Refining Co. No. 1 (C. Young "F"), $\frac{1}{2}$ mile southeast of Turnertown, Bill Belair, driller.			Shale	63	773			
Shale	135	185	Sand	24	797			
White quicksand	81	216	Shale	8	805			
Brown shale	3	225	Rock	1	806			
Water sand	5	230	Water sand	45	851			
Sandy shale	120	55	Shale	181	1032			
Water sand	35	305	Sand	42	1074			
Sandy shale	47	428	Screen: 108 feet placed opposite sands at 896-851 and 1,032-1,074 feet.					
Casing perforated from 342 to 384 feet.			<u>Well 722</u>					
<u>Well 720</u>								
Sun Oil Co. No. 1 (S. A. Selman), $\frac{1}{2}$ mile southwest of Turnertown, Sun Oil Co., drillers.			The Ohio Oil Co. No. 2 (C. L. Graham), 2 miles southwest of Turnertown, S. C., Cox, driller.					
Surface material	25	25	Sand and clay	50	50			
Shale and sand	51	76	Sand and shale	30	80			
Sand	56	132	Water sand	30	110			
<u>Well 721</u>			Casing perforated from 60 to 110 feet.					
Sun Oil Co. No. 2 (S. A. Selman), $\frac{1}{2}$ mile southwest of Turnertown, Walter A. Meller, driller.			<u>Well 722</u>					
Clay and sand rock	27	27	Amerada Petroleum Corp. No. 2 (T. J. Stovall), $1\frac{1}{2}$ miles south of Turnertown, Walter F. Meller, driller.					
Black shale	8	55	Shale and gumba	250	250			
Shells	15	50	Shale and sand	45	295			
Shells and sand	25	75	Fine-grained sand and lignite	92	387			
Broken shale	147	222	Sand	31	418			
Gummy shale	8	230						
Gumbo	20	250						
Loose shale	28	278						

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Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 735</u>					
The Ohio Oil Co., No. 1 (E. B. Moore), 1½ miles south of Turnertown. S. C. Cox, driller.					
Clay and sand	55	55			
Sand, shale and boulders	365	425			
Shale	26	440			
Rock	2	442			
Shale and sand	73	515			
Rock	1	516			
Sand	84	600			
Shale and streaks of sand	60	600			
Rock	2	602			
Shale	23	635			
Sand	33	712			
Sandy shale	78	726			
Sand	95	889			
Sandy shale	5	894			
Shale and streaks of sand	46	940			
Curry shale	66	1008			
Casing perforated from 784 to 880 feet.					
<u>Well 740</u>					
Atlantic Refining Co. (Strickland), 1½ miles northeast of Carlisle. Belin and Bolin, drillers.					
Shale and sand	50	50			
Lignite, sand and shale	123	172			
Shale	49	225			
Water sand	40	235			
Shale	60	255			
Water sand	30	355			
Shale	35	390			
Casing perforated from 510 to 550 feet.					
<u>Well 741</u>					
Sinclair-Prairie Oil Co. No. 1 (W. H. McCord), ½ mile northeast of Carlisle. L. J. Little, driller.					
Soil	2	5			
Brown shale	26	28			
Quicksand	12	75			
Sand	39	74			
Brown shale	5	77			
Coarse-grained brown sand	5	80			
Brown sand	7	85			
Blue shale	10	99			
Black lignite	2	101			
blue shale	37	133			
Lignite	15	155			
Sand and shale	3	156			
Lignite	12	158			
Brown shale	22	190			
<u>Well 741--continued</u>					
Blue shale	4	194			
Brown shale	13	213			
Water sand	50	243			
<u>Well 742</u>					
Carlisle School, in Carlisle. Layne-Texas Co., drillers.					
Soil	2	2			
Red clay	7	16			
Brown clay	15	28			
White sand	62	36			
Sand, shale and lignite	10	45			
Shale	2	101			
Grey sand	12	113			
Sandy shale and lignite	31	144			
Sandy shale	31	175			
Sand and layers of shale	32	207			
Shale	4	211			
Sandy shale	12	223			
Sand	15	236			
Sand and layers of shale	55	291			
Casing at 225-237 and 241-260 feet.					
<u>Well 743</u>					
Sinclair-Prairie Oil Co. (D. Lubettor), 1½ miles southwest of Carlisle. L. W. Little, driller.					
Clay	20	20			
Sand	38	53			
Brown shale	2	60			
Blue shale	30	90			
Brown shale	10	100			
Blue shale	5	105			
Water sand	25	150			
Blue shale	35	165			
Lignite	2	167			
Blue shale	18	185			
Brown shale	15	200			
Lignite	2	202			
Brown shale	18	220			
Sandy shale	15	235			
Brown shale	10	245			
Sandy shale	10	255			
<u>Well 744</u>					
The Ohio Oil Co., No. 1 (J. F. Mason), ½ mile northwest of Carlisle. Fred Fielder, driller.					
Sand and clay	120	120			
Sand and shale	160	230			
Sand	122	402			

Table of drillers' logs, Rusk County---Continued

	Thickness (feet)	Depth (feet)
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Well 748

Tide Water Associated Oil Co., No. 1 (C. B. Rollins), 1½ miles northwest of Carlisle. Walter A. Meller, driller.		
Clay	12	12
Sand	18	30
Lime and shells	1	31
Sand	29	60
Gumbo	109	169
Shale	11	180
Sand	6	186
Shale and gumbo	58	244
Sand	7	251
Shale	77	328
Sand	11	339
Shale and gumbo	46	385
Sand	5	390
Shale	15	405
Lime	5	410
Water sand	41	451
Casing perforated from 401 to 451 feet.		

Well 749

Humble Oil and Refining Co., No. 1 (M. and R. Kangerga), 2 miles northwest of Carlisle. Walter A. Meller, driller.		
Clay	30	30
Sand	110	140
Gumbo	42	182
Gumbo and sandy shale	68	250
Sand	15	265
Shale	67	332
Sand and sandy shale	63	395
Screen from 310 to 378 feet.		

Well 750

Sun Oil Co., No. 5 (H. Schuler "A"), 2 miles northwest of Carlisle. Sun Oil Co., driller.		
Surface material	15	15
Sand	15	30
Shells	50	80
Sand	35	115
Shale and shells	85	200

	Thickness (feet)	Depth (feet)
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Well 750--continued

Sand	45	245
Shale	33	278
Sand	36	314
Shale	3	317
Casing perforated from 275 to 317 feet.		

Well 751

Gulf Oil Corp. No. 1 (Mayfield "C"), 2½ miles northwest of Carlisle. C. L. Watts, driller.		
Clay and sand	85	85
Gravel	10	95
Water sand	45	140
Sand and shale	20	160
Shale and boulders	70	230
Sandy shale	155	385
Shale	62	447
Sandy shale and boulders	243	600
Rock	1	691
Water sand	138	829
Lignite	3	832
Screen from 710 to 829 feet.		

Well 752

Sinclair-Prairie Oil Co., No. 2 (W. D. Kinney), 2 miles northwest of Carlisle. Layne-Texas Co., driller.		
Red clay	16	16
Sand	12	28
Blue shale	5	33
Red sand and layers of shale and lignite	37	70
White sand and lignite	22	92
Coarse-grained white sand	44	136
Gray shale and lignite	45	181
Shale and layers of hard sand	145	326
Fine-grained hard sand and lignite	23	349
Soft shale	14	363
Sand	5	368
Hard shale	28	796
Sand and layers of shale and lignite	59	455

(Continued on next page)

Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 752--continued</u>			<u>Well 758</u>		
Hard shale	25	480	City of Henderson No. 5, in Henderson, 1 mile east of courthouse. Levine-Texas Co., drillers.		
Hard shale and layers of sand	6	430	Red clay	9	9
Gray water sand	12	505	Red sand	20	29
Soft shale	5	510	Blue sand	28	57
Gray sand	8	518	Shale	33	95
Soft shale and lignite	37	555	Fine-grained sand	19	114
Marl rock	5	558	Shale	80	200
Soft shale, hard layers of sand and lignite	74	630	Sand and streaks of lignite	22	222
Rock	1	635	Shale	21	343
Soft shale, thin layers of sand and lignite	59	692	Shale and streaks of sand and lignite	57	700
Fine-grained sand	45	737	Shale	54	354
Gray sand and lignite	32	769	Sand	18	372
Soft shale	10	779	Shale	52	424
Sand	6	785	Sand	11	435
Rock	1	786	Shale	16	451
Fine-grained hard silty sand	18	804	Shale and streaks of fine-grained muddy sand and thin layers of rock	47	498
Fine-grained white sand, shale, lignite	49	855	Good sand	32	530
Soft shale	10	865	Sand and streaks of shale	36	566
White sand	16	879	Shale and hard streaks	114	680
Soft shale	7	886	Rock	2	682
Gray sand	24	910	Shale and boulders	43	725
Rock	1	911	Tough shale and boulders	15	740
Fine-grained sand, shale, lignite	19	930	Shale and boulders	80	820
Soft shale	16	946	Poek	1	821
Screen at 485-504, 754-795 and 811-911 feet.			Good sand	20	841
			Broken sand and shale	9	850
			Shale	18	868
			Screen at 490-572 and 593-654 feet.		
<u>Well 754</u>			<u>Well 759</u>		
The Chic Oil Co. No. 1 (N. M. Cross), 2 miles northwest of Carlisle.			City of Henderson test No. 3-1, in Henderson, $\frac{1}{2}$ mile southeast of court- house. Levine-Texas Co., drillers.		
Clay	15	15	Soft sandy clay	58	58
Water sand	65	80	Shale and sandy shale	74	132
Land, shale and boulders	130	210	Hard shale and streaks of lignite	91	223
Rock	1	211	Sand and shells (hard)	18	241
Sand, shale and boulders	130	341	Rock	1	242
Sand rock	4	345	Hard shale	11	253
Sandy shale	25	370	Shale and sandy shale	54	307
Rock	1	371	Fine-grained hard sand	16	323
Sandy shale	69	440	Shale	22	345
Rock	3	442	Hard sand	14	359
Sand	53	500			
Shale	125	625			
Rock	1	626			
Sand	247	873			
Casing perforated from 739 to 873 feet.			(Continued on next page)		

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Table of Drillers' Logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 759--continued</u>			<u>Well 760--continued</u>		
Shale	7	360	Sand and shale	7	661
Sand	3	360	Shale	22	683
Shale	29	393	Sand	57	740
Hard sand	13	411	Rock	?	742
Shale and sandy shale	56	467	Sand	11	753
Fine-grained hard sand	11	478	Sand and sandy shale	24	777
Sandy shale	13	491	Shale	17	794
Rock	1	492			
Sand	5	495			
Shale	12	507			
Sand	75	582	<u>Well 761</u>		
Sandy shale	5	587	City of Henderson test No. 5-2, in Henderson, 6.9 mile southeast of court- house. Layne-Texas Co., drillers.		
Sand	8	595	Sand and clay	40	40
Sandy shale	5	600	Sand	30	70
Hard sand	54	634	Shale	152	222
Fine-grained sand	13	647	Rock	1	223
Shale	4	651	Sandy shale	15	238
Sand	6	657	Sand	23	266
Shale	20	677	Sandy shale	18	284
Rock	1	678	Sand	14	298
Shale and boulders	23	701	Sandy shale (hard)	37	335
<u>Well 760</u>			Hard shale	40	375
City of Henderson test No. 4-2, in Henderson, $\frac{1}{2}$ mile southwest of courthouse. Layne-Texas Co., drillers.			Sand	4	379
Red clay	10	10	Sand, shale and lignite	70	449
Shale and sand	75	85	Shale and sandy shale	5	455
Shale and sandy shale	61	146	Rock	2	457
Rock	1	147	Shale	2	459
Shale, sandy shale and streaks of lignite and sand	225	370	Sandy shale	25	484
Rock	1	371	Shale	8	492
Shale and sand	9	380	Sand	26	518
Hard sand	15	395	Rock	1	519
Sand and shale layers	16	409	Sand	28	547
Shale and sand layers	57	462	Broken shale	8	555
Rock	1	467	Sand and lignite	11	560
Hard shale, sandy shale and boulders	55	520	Broken sandy shale	27	593
Rock	1	521	Sand	36	629
Sand and shale	18	539	Shale	21	650
Hard sand	12	551	Rock	1	651
Sandy shale (hard)	8	559	Shale	9	660
Sand	95	654	Rock	1	681
			Shale and sandy shale	27	688
			Sand and shale breaks	31	719
			Sand	5	724
			Sandy shale	12	736
			Rock (hard)	2	738
			Shale and sandy breaks	21	759

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Table of drillers' logs, Rusk County--Continued

	Thickness (feet)	Depth (feet)		Thickness (feet)	Depth (feet)
<u>Well 762</u>					
City of Henderson No. 6, in Henderson, 1 mile east of courthouse. Layne-Texas Co., drillers.					
Soil	3	3			
Yellow clay	30	33			
Blue sand and shale	61	94			
Shale and layers of lignite	17	111			
Fine-grained sand	15	126			
Shale and layers of sand	65	191			
Fine-grained sand	10	201			
<u>Well 762--continued</u>					
Soft rock		1		202	
Shale		4		206	
Fine-grained sand and lignite		188		394	
Fine-grained packsand		30		424	
Sand (Good)		22		446	
Shale		23		469	
Sand (Good)		130		599	
Hard lignite		7		606	
Sand		3		609	
<u>Screen from 487 to 592 feet.</u>					

Partial analyses of water from wells in Rusk County, Texas

Analyzed at The University of Texas under the direction of W. W. Hastings, Chemist, U. S. Department of the Interior, Geological Survey, and Dr. E. P. Schoch, Director of the Bureau of Industrial Chemistry. Results are in parts per million. Well numbers correspond to numbers in table of well records.

Well	Owner or (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal-	Magne-	Sodium and	Bicar-	Sul-	Chlor-	Fluor-	Ni-	Total
					(Ca)	(Mg)	sium	Potassium	bonate	fate	ride	ide	trate
					(Na + K)	(HCO ₃)	(SO ₄)	(Cl)	(F)	(NO ₃)	as CaCO ₃	(calc.)	
31-b	Tide Water												
	Associated Oil Co. No. 2 (W. P. Moore)	820	Oct. 7, 1941	330	0	0	135	281	46	11	0.3	a/	0
b/ 32	Gulf Pipe Line Co. (W. Florence)	1,033	June 5, 1936	1,452	25	5	555	634	20	535	-	-	83
32	do.	1,033	Oct. 6, 1941	1,411	4.4	1.2	564	500	18	575	0.3	2.0	16
47-a	Magnolia Petro- leum Co. (Dick Wells)	852	Nov. 28, 1931	-	-	-	-	-	20	330	-	-	15
47-a	do.	862	Oct. 8, 1941	398	2.8	2.4	163	421	15	8.0	-	a/	17
b/336-a	Humble Oil and Ref. Co. No. 1 (M. & R. Kanger- ga "A")	259	Jan. 20, 1942	201	22	9.7	25	12	109	19	0	0.5	96
415	City of Hender- son No. 2	558	June 19, 1936	220	3	1	90	238	c/	9	-	-	11
416	City of Hender- son No. 4	583	do.	162	3	2	63	171	c/	10	-	-	17
628	Tide Water Associated Oil Co. No. 2 (Nat Bean "A")	437	Oct. 4, 1941	389	3.6	0.2	158	372	38	6.0	-	a/	10

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued
Results are in parts per million

Well	Owner or (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal-	Magne-	Sodium and Potassium	Bicar-	Sul-	Chlo-	Fluor-	Ni-	Total
					(Ca)	(Mg)	(Na + K) (calc.)	(HCO ₃)	(SO ₄)	(Cl)	(F)	(NO ₃)	as CaCO ₃ (calc.)
629	Gulf Oil Corp. No. 3 (M.E.Peterson)	440	Aug. 28, 1941	359	8	1.5	140	354	27	8.0	-	<u>a/</u>	26
630	Houston Oil Co. No. 3 (D.M.Peterson)	378	Oct. 16, 1941	412	16	1.2	153	409	31	7.0	-	3.0	46
631	Humble Oil and Ref. Co. No. 2 (B.F.Laird "A")	889	Oct. 4, 1941	622	<u>d/</u>	1.5	259	573	31	48	-	0	6
633	Sinclair-Prairie Oil Co. (Major Kennedy "C")	500	Oct. 8, 1941	357	8.4	1.2	142	384	10	6.0	-	<u>a/</u>	26
634	Star Bailey School	25	Jan. 21, 1942	44	2.8	3.6	9.0	18	10	5.5	-	4.0	17
636	Snowden and McSweeney (Francis Bean)	665	Oct. 15, 1941	665	4.8	2.4	273	683	38	10	0.7	<u>a/</u>	22
638	Midstates Oil Corp. (Brightwell "A")	168	Oct. 7, 1941	351	49	27	36	0	31	203	0.1	<u>a/</u>	232
639	Houston Oil Co. (W.F.Brightwell)	625	Dec. 6, 1941	460	9.6	6.1	166	384	77	10	0.2	<u>a/</u>	49
640	Atlantic Ref. Co. (Mose Brock)	400	Oct. 6, 1941	559	2.4	1.2	232	567	35	9.0	0.4	<u>a/</u>	11
641	H.G.Samson, Inc. (Mose Brock)	788	Oct. 7, 1941	558	0.4	1.2	236	536	20	11	1.0	<u>a/</u>	6
642	Brock Oil Co. (Murphy and Roberts)	900	Oct. 8, 1941	403	2.8	3.6	164	439	15	0.5	1.2	0	22

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued

Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids (Ca)	Cal-	Magne-	Sodium and	Bicar-	Sul-	Chlor-	Fluor-	Ni-	Total
					(Mg)	sium	Potassium	bonate	fate	ride	ide	trate	as CaCO ₃
643	Midstates Oil Corp. (Brightwell "B")	329	Oct. 7, 1941	1,010	6.0	0	415	610	12	285	1.0	a/	15
644	J.S.Abercrombie Co. and Harrison Oil Co. (M.A.Cantrell)	600	Oct. 8, 1941	353	20	1.2	145	415	23	5.0	0.4	a/	56
b/645	Tide Water Associated Oil Co. (F.L.Bunton "B")	780	Jan. 19, 1942	509	0.4	1.2	214	525	26	9.5	0.3	0	6
b/647	Tide Water Associated Oil Co.No.1 (H.P.Leverett)	1,075	do.	2,082	9.6	6.1	815	519	26	970	0.4	0	49
650	Magnolia Petroleum Co. (W.P. Moore)	95	Oct. 7, 1941	228	26	9.7	39	73	94	23	0.1	a/	106
651	Devonian Oil Co. (R. A. Notley)	343	Oct. 6, 1941	234	20	9.7	46	61	108	20	0.1	a/	91
b/652	City of Overton No. 3	338	Oct. 7, 1941	140	11	3.6	32	24	61	20	0	0	42
653	Humble Oil and Ref.Co.No.2 (R.E.L.Silvey "A")	562	Oct. 10, 1941	306	14	0	114	317	16	5.0	-	a/	35
656	Humble Oil and Ref.Co.No.4 (Ida Holt "B")	596	Oct. 17, 1941	293	6.8	2.4	109	262	38	7.0	-	a/	27
b/658	New London School	537	Oct. 9, 1941	252	8.4	1.2	84	122	81	17	0.1	a/	26

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued
Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Fluor- ide (F)	Ni- trate (NO ₃) as CaCO ₃ (calc.)	Total hardness
659	Olsan Bros. Inc. (C.W. Mullins)	500	Jan. 19, 1942	183	47	3.6	22	201	7	4.5	-	0	132
661	Gulf Oil Corp. No. 3 (T.B. Cashen)	328	Oct. 7, 1941	143	6.8	3.6	40	49	46	22	0.1	a/	32
663	Stanolind Oil and Gas Co. (W.O. Alford)	675	Oct. 17, 1941	171	18	7.3	31	49	69	22	-	a/	75
665	G.H. Vaughn Prod. Co. (L.P. Thrash)	1,000+	do.	746	6.8	3.6	302	641	16	102	7.9	a/	32
b/666	Wilford Oil Co. (M. A. Thrash)	195	Jan. 19, 1942	140	10	8.5	29	61	41	20	-	1.0	60
667	Stanolind Oil and Gas Co. (J. B. Milstead)	390	May 9, 1940	161	-	-	29	18	82	19	-	0.4	66
667	do.	390	Jan. 19, 1942	140	16	9.7	17	31	64	18	-	0	81
b/671	D. B. Malernee (E. B. Alford)	880	do.	298	2.0	7.3	112	299	23	5.5	0.8	0	35
672	Octo Oil Corp. (Cox "C")	200	do.	108	7.6	6.1	20	12	52	16	-	0	44
673	Atlantic Ref. Co. (W.H. Frederick)	440	do.	243	1.6	6.1	34	171	56	9.0	-	2.0	29
674	Tres Oil Corp. (Camp "A")	98	Oct. 8, 1941	70	5.6	6.1	8.7	0	31	18	0.2	a/	39
b/676	Panola Pipe Line Co. (---Ashby)	100+	Jan. 19, 1942	60	8.4	1.0	10	6	27	10	0.1	0	25
677	do.	100+	May 7, 1940	103	-	-	13	0	59	12	-	0.0	51
679	Tidal Pipe Line Co. (D. Bradford "E")	329	Jan. 19, 1942	223	18	6.1	61	177	34	15	-	2.0	69
680	Pine Petroleum Corp. (Mayfield- Alford)	420	Oct. 8, 1941	186	7.2	4.9	61	165	20	11	-	a/	38

a/ Less than 2 parts per million.

b/ Analyses of water from selected wells are given in milligram
equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued

Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Potassium (Na + K)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Fluor- ide (F)	Ni- trate (NO ₃)	Total hardness as CaCO ₃ (calc.)
681	Parade Gasoline Co. No. 2 (C. C. Giles)	457	May 9, 1940	282	-	-	112	194	76	6.0	-	2.9	6.0
681	do.	457	Jan. 19, 1942	279	4.8	2.4	101	201	64	6.0	-	1.5	22
b/682	Parade Gasoline Co. No. 3 (C. C. Giles)	466	Jan. 21, 1942	343	e/	2.4	124	159	124	14	0	0.5	10
683	Spandsco Oil & Ref. Co. (W. P. Brett)	400+	Jan. 19, 1942	228	4.8	2.4	81	159	52	8.0	-	1.3	22
685	Atlantic Ref. Co. (M.L.Thompson)	500+	Jan. 20, 1942	164	17	12	24	85	56	12	0.1	0.5	93
688	British-American Oil Co. (Kangerga Bros.)	508	do.	296	50	17	26	116	124	20	-	1.5	196
689	British-American Oil Co. (J. D. Stone)	482	do.	279	44	17	23	67	139	22	-	0.5	180
690	Beacon Oil and Ref. Co. (C. C. Giles)	376	May 9, 1940	392	-	-	143	114	195	15	-	4.0	9.0
691	Retsal Drilling Co.(J.T.Brown)	500+	Jan. 19, 1942	93	13	12	d/	6	52	12	-	0.5	83
692	Haynes Oil Corp. (J. T. Brown)	500+	May 7, 1940	431	-	-	155	110	249	21	-	4.8	45

a/ Less than 20 parts per million.

 b/ Analyses of water from selected wells are given in milligram
equivalents per liter on page 56 .

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued
Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal- (Ca)	Magne- (Mg)	Sodium and sium (Na + K)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Fluor- ide (F)	Ni- trate (NO ₃)	Total hardness as CaCO ₃ (calc.)
692	Haynes Oil Corp. (J. T. Brown)	500+	Jan. 20, 1942	309	20	6.1	81	116	124	17	-	4.0	74
693	do.	300+	May 7, 1940	152	-	-	12	0	94	12	-	0.0	90
693	do.	300+	Jan. 20, 1942	120	22	8.5	0.9	0	75	13	0.2	0.5	90
695	Shell Oil Co. Inc. (H. Brooks)	340+	do.	112	22	6.1	4.6	6	64	12	-	0.5	79
697	Miller Production Co. (D. Bradford "B")	.	.	.	.	.	.	.	.	.	.	.	.
b/698	Gaston School	355	Jan. 19, 1942	195	6.0	e/	75	183	13	10	-	1.0	15
698	do.	415	May 8, 1940	145	-	-	62	142	10	9.0	-	0.0	4.0
698	do.	415	Sept. 18, 1941	146	2.4	2.7	54	134	13	8.0	0.1	e/	17
700	Sun Oil Co. (R. J. Hendon)	304	Jan. 19, 1942	234	12	e/	85	226	15	9.5	-	1.0	30
701	Atlantic Ref. Co. (-- Arnold)	408	Jan. 20, 1942	244	2.0	8.5	86	232	26	5.5	-	2.0	40
702	Frankel et al (J. E. Arnold)	450	do.	260	15	2.4	79	146	86	5.5	-	0.5	47
703	Stuart Petr. Co. (Dr. Deason)	250+	do.	99	17	2.4	12	12	52	10	-	0	52
705	T. C. Adams (J. F. Arnold)	190+	Jan. 21, 1942	107	16	8.5	3.9	12	56	14	-	0.5	30
706	Texas Trading Co. (A.J. & D.F. Deason)	311	do.	166	14	7.3	29	12	97	12	-	0.5	65
707	Ebony Oil Co. (A. J. Deason)	239	do.	115	13	12	6.4	12	64	14	-	0	32
708	The Ohio Oil Co. No. 3 (S.H. Moore)	198	Jan. 20, 1942	120	14	7.3	12	0	75	12	-	0	65
709	The Ohio Oil Co. (S. H. Moore)	198	do.	98	14	9.7	e/	0	64	10	-	0.5	76

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued
Results are in parts per million

Well Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Potassium (Na + K)	Bicar- bonate (HCO ₃) (calc.)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Fluor- ide (F)	Ni- trate (NO ₃)	Total hardness as CaCO ₃ (calc.)
b/710 The Ohio Oil Co. No. 5 (S. H. Moore)	200	Jan. 20, 1942	208	28	16	13	0	135	16	0.1	0	135
b/712 Midstates Oil Corp. No. 2 (A.J. Deason)	225	do.	103	13	11	4.1	12	56	12	-	0.5	77
715 Dalclark Oil Corp. (C. Young "B")	460	Sept. 19, 1941	154	22	10	11	0	100	11	-	a/	96
b/716 Atlantic Ref. Co. No. 2 (C. Young "F")	543	Jan. 21, 1942	331	4.8	2.4	129	323	25	6.5	0.4	2.0	22
717 Atlantic Ref. Co. No. 1 (C. Young "F")	428	Sept. 22, 1941	357	15	14	89	104	169	18	-	1.0	93
718 Granite Oil Trust (C. Young)	-	Jan. 21, 1942	133	16	15	0.9	0	36	15	-	0.5	99
b/719 S. A. Selman	153	Jan. 19, 1942	206	44	16	0.5	0	139	22	-	0.5	175
721 Sun Oil Co. No. 2 (S.A. Selman)	402	Jan. 21, 1942	403	4.0	7.3	149	354	56	9.5	0.2	3.0	40
722 Arkansas Fuel Oil Co. (G. Ferguson)	400+	Jan. 20, 1942	213	8.0	7.3	63	140	56	9.5	-	0.5	50
723 Jackson, Wise and Sneeden (J. B. Wilson)	440	do.	268	27	12	52	134	94	14	-	3.0	117
724 Midstates Oil Corp. (M. & R. Kangerga)	504	do.	252	6.8	3.6	88	195	52	6.0	-	0	32
725 Atlantic Ref. Co. (Pinkston "A")	511+	do.	269	7.2	4.9	38	171	75	7.5	0.1	2.0	38
726 Atlantic Ref. Co. (R. W. Fair)	250+	Sept. 22, 1941	232	0.4	2.7	90	195	35	8.0	0.2	0	12

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram
equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued
Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal-	Magne-	Sodium and Bicar-	Sul-	Chlo-	Fluor-	Ni-	Total	
					cium (Ca)	sium (Mg)	Potassium (Na + k)	bonate (HCO ₃) (calc.)	fate (SO ₄)	ride (Cl)	ide (F)	trate (NO ₃) as CaCO ₃ (calc.)	
727	British-American Oil Co. (--Murphy)	416	Jan. 20, 1942	273	4.8	2.4	100	214	56	4.0	-	1.0	22
b/730	Lone Pine Oil Co. (--Pinkston)	126	do.	101	18	7.3	3.0	0	56	15	-	0.5	75
732	Amerada Petroleum Corp. No. 2 (T.J.Stovall)	421	May 6, 1940	253	--	-	99	168	75	4.0	-	0.0	7.5
732	do.	421	Jan. 21, 1942	224	2.8	3.6	78	146	60	5.5	-	2.0	22
b/733	Lisbon Gasoline Co. No. 1 (E. F. Moore)	667	Sept. 17, 1941	458	d/	d/	194	476	27	3.0	0.1	a/	0
b/734	Lisbon Gasoline Co. No. 2 (F. E. Moore)	486	do.	158	16	10	19	0	100	13	0	a/	81
736	Gant, Garvin and Legener (W. P. Moore)	300	May 7, 1940	291	-	-	125	286	13	5.0	-	2.1	9.0
736	do.	300	Jan. 21, 1942	312	21	3.4	105	329	12	9.5	0.4	0	67
737	Atlantic Pipe Line Co. (W.P.Moore)	-	May 7, 1940	291	-	-	128	300	3.0	4.0	-	0.0	6.0
739	Atlantic Ref. Co. (I. L. Kinney)	700	+Jan. 21, 1942	316	2.4	1.2	126	323	11	4.5	0.3	2.0	11
b/740	Atlantic Ref. Co. (--Strickland)	390	Sept. 22, 1941	291	d/	1.5	116	287	10	6.0	0.2	6.0	6
741	Sinclair-Prairie Oil Co. No. 1 (W.H.McCord)	243	Jan. 21, 1942	403	0.4	1.2	169	421	15	8.5	-	2.0	6
b/742	Carlisle School	275	Sept. 18, 1941	477	2.4	2.7	199	531	5	6.0	1.2	a/	17

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram
equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued

Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicar- bonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Ni- trate (NO ₃)	Total hardness as CaCO ₃ (calc.)
b/743 Sinclair-Prairie Oil Co.													
	(D.Ledbetter)	136	Jan. 21, 1942	232	8.4	1.2	85	214	25	7.0	-	0.5	26
744	The Ohio Oil Co. No. 1 (J.F.Mason)	402	do.	94	13	11	0.5	0	52	13	-	1.5	77
745	Magnolia Petroleum Co. (T.O.Mason)	400+	do.	75	7.6	6.1	9.2	0	26	26	-	0	44
746	The Texas Co. (Cora Hanna)	80	do.	90	6.0	3.5	15	49	20	16	-	0	50
747	British-American Oil Co. (J. Mayfield)	495	Jan. 20, 1942	265	0.8	3.6	106	275	10	8.0	-	2.0	17
748	Tide Water Associated Oil Co. No. 1 (C. B. Rollins)	451	do.	709	2.8	2.4	292	709	52	12	-	0	17
749	Humble Oil & Ref. Co. No. 1 (M. & R. Kangerga)	395	do.	457	1.2	4.9	180	415	56	10	-	1.0	23
750	Sun Oil Co. No. 5 (H.Schuler "A")	317	do.	815	6.8	3.6	334	781	15	59	1.4	1.0	32
751	Gulf Oil Corp. No. 1 (Mayfield "C")	332	do.	927	6.8	3.6	380	811	8	130	-	0	32
b/752 Sinclair-Prairie Oil Co. No. 2													
	(W. D. Kinney)	946	do.	819	0.4	1.2	346	781	15	69	1.4	2.0	6
753	The Ohio Oil Co. No. 2 (M.M.Cross)	62	Oct. 4, 1941	506	22	8.5	160	0	15	300	0.2	a/	90
753	do.	62	Jan. 20, 1942	615	12	15	205	0	13	370	-	0	89
755 The Ohio Oil Co.													
	No. 6 (M.M.Cross)	65	do.	176	12	9.7	39	6	22	90	-	0	71

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Partial analyses of water from wells in Rusk County--Continued
Results are in parts per million

Well	Owner (Lessor)	Depth of well (ft.)	Date of collection	Total dissolved solids	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Bicar- bonate (Na + K) (HCO ₃) (calc.)	Sulfate (SO ₄)	Sulfide (S ²⁻)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Total hardness as CaCO ₃ (calc.)
b/756	The Ohio Oil Co. No. 5 (M. M. Gross)	65	Jan. 20, 1942	139	12	7.3	29	6	20	68	0.1	0	60
b/758	City of Henderson No. 5	727	June --, 1942	473	11	5	194	400	9	34	1.3	0.4	43
f/759	City of Henderson test no. 3-1	634-											
f/760	City of Henderson test no. 4-2	647	Jan. --, 1942	596	-	-	157	354	0	9.0	0.9	-	-
f/760	City of Henderson test no. 4-2	577-											
f/760	City of Henderson test no. 4-2	588	Jan. --, 1942	982	-	-	282	571	0	55	-	-	-
f/761	City of Henderson test no. 5-3	704-											
f/761	City of Henderson test no. 5-3	715	Feb. --, 1942	1,112	1.3	-	309	673	0	45	1.6	-	3.2
f/761	City of Henderson test no. 5-3	246-											
f/761	City of Henderson test no. 5-3	257	Feb. --, 1942	292	4.7	1.1	66	172	2.5	11	0.7	-	16
f/761	City of Henderson test no. 5-3	493-											
f/761	City of Henderson test no. 5-3	504	Feb. --, 1942	1,116	-	0	308	688	0	23	1.7	-	5
f/761	City of Henderson test no. 5-3	600-											
f/761	City of Henderson test no. 5-3	611	Feb. --, 1942	845	2.8	0.4	230	483	6.2	40	1.3	-	8.6
f/761	City of Henderson test no. 5-3	683-											
b/762	City of Henderson No. 6	694	Feb. --, 1942	795	2.3	0.6	202	512	1.9	3.5	1.4	-	9.2
f/		609	Aug. --, 1942	230	5	2	88	201	6	7	0.4	0.4	21

a/ Less than 20 parts per million.

b/ Analyses of water from selected wells are given in milligram equivalents per liter on page 56.

c/ Less than 10 parts per million.

d/ Less than 5 parts per million.

e/ Less than 3 parts per million.

f/ Analyzed by State Department of Health.

Chemical Analyses--Continued

Results are in milligram equivalents per liter

Well No.	Owner (Lessor)	Depth of well (ft.)	Date of collection	Cal- cium (Ca)	Magne- sium (Mg)	Sodium and Potassium (Na + K) (calc.)	Bicar- bonate (HCO ₃)	Sul- fate (SO ₄)	Chlo- ride (Cl)	Fluor- ide (F)	Ni- trate (NO ₃)	Total hardness as CaCO ₃ (calc.)
32	Gulf Pipe Line Co. (W. Florence)	1,033	Oct. 6, 1941	0.22	0.10	24.50	8.20	0.37	16.22	0.02	0.03	0.32
336-a	Humble Oil and Ref. Co. No. 1 (M. & R. Kangerga "A")	259	Jan. 20, 1942	1.12	.80	1.09	.20	2.26	.54	0	.01	1.92
645	Tide Water Associated Oil Co. (F.L.Buntyn "B")	780	Jan. 19, 1942	.02	.10	9.30	8.60	.55	.27	.02	0	.12
647	Tide Water Associated Oil Co. (H.P.Leverett)	1,075	do.	.48	.50	35.43	8.50	.55	27.36	.02	0	.93
652	City of Overton No. 3	338	Oct. 7, 1941	.54	.30	1.40	.40	1.28	.56	0	0	.84
658	New London School	537	Oct. 9, 1941	.42	.10	3.64	2.00	1.68	.48	.01	-	.52
666	Milford Oil Co. (M. A. Thrash)	195	Jan. 19, 1942	.50	.70	1.24	1.00	.86	.56	-	.02	1.20
671	D. B. Malarnee (F. B. Alford)	380	do.	.10	.60	4.88	4.90	.48	.16	.04	0	.70
676	Panola Pipe Line Co. (-- Ashby)	100+	do.	.42	.08	.44	.10	.56	.28	.01	0	.50
682	Parade Gasoline Co. No. 3 (C. C. Giles)	466	Jan. 21, 1942	0	.20	5.37	2.60	2.56	.39	0	.01	.20
698	Gaston School	415	Sept. 19, 1941	.12	.22	2.36	2.20	.27	.23	.01	-	.34
710	The Ohio Oil Co. No. 5 (S. H. Moore)	200	Jan. 20, 1942	1.40	1.30	.56	0	2.81	.15	.01	0	2.70
712	Midstates Oil Corp. No. 2 (A. J. Deason)	225	do.	.64	.90	.18	.20	1.17	.34	-	.01	1.54
716	Atlantic Ref. Co. No. 2 (C Young "F")	543	Jan. 21, 1942	.24	.20	5.59	5.30	.52	.18	.02	.03	.44
719	S. A. Selman	153	Jan. 19, 1942	2.20	1.30	.02	0	2.89	.62	-	.01	3.50
730	Lone Pine Oil Co. (-- Pinkston)	126	Jan. 20, 1942	.90	.60	.13	0	1.17	.45	-	.01	1.50
733	Lisbon Gasoline Co. No. 1 (E. E. Moore)	567	Sept. 17, 1941	0	0	8.44	7.80	.56	.08	.01	-	0
734	Lisbon Gasoline Co. No. 2 (E. E. Moore)	486	do.	.80	.82	.33	0	2.08	.37	0	-	1.62
740	Atlantic Ref. Co. (-- Strickland)	390	Sept. 22, 1941	0	.12	5.06	4.70	.21	.17	.01	.10	.12

