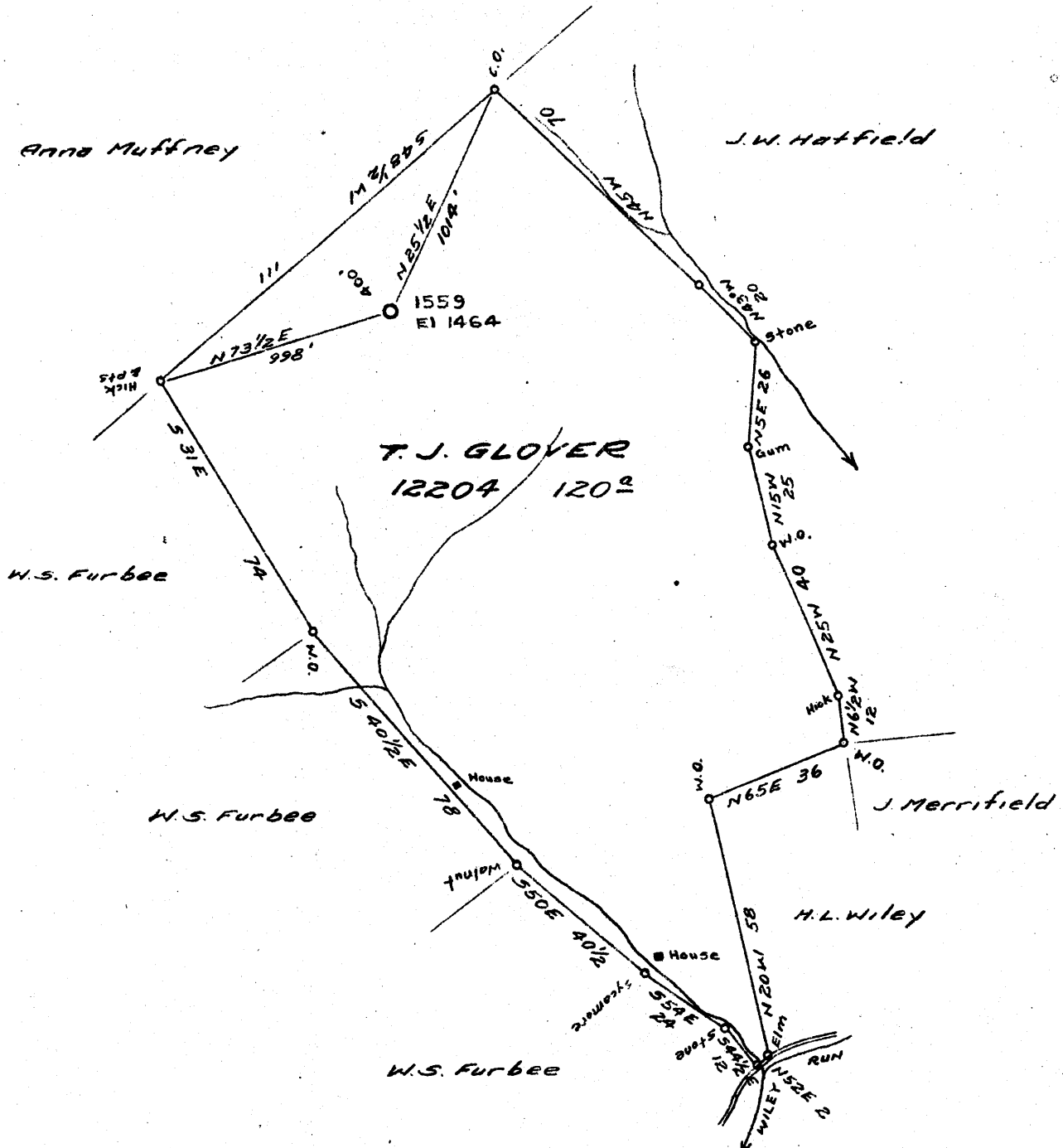


Latitude 39° 35'



Longitude 80° 30'



W-1-1  
 1.06-W  
 S-06  
 0.57-5

New Location  X  
 Drill Deeper   
 Abandonment

Company CARNEGIE NATURAL GAS  
 Address PITTSBURGH, PA.  
 Farm T.J. GLOVER  
 Tract \_\_\_\_\_ Acres 120 Lease No. E-12204-74  
 Well (Farm) No. 1 Serial No. 1559  
 Elevation (Spirit Level) 1464  
 Quadrangle LITTLETON SE  
 County WETZEL District GRANT  
 Engineer R.L. SWEENEY  
 Engineer's Registration No. \_\_\_\_\_  
 File No. \_\_\_\_\_ Drawing No. \_\_\_\_\_  
 Date 4-22-41 Scale 1" = 40 rods

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

WELL LOCATION MAP  
 FILE NO. WET-254

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500. latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
WELL RECORD

Permit No. Wet-254  
Littleton S.E. Quad.

Gas Well

Company	Carnerie Natural Gas Company	Casing & Tubing		
Address	Pittsburgh, Pa.	10	406	406
Farm	T. J. Glover	Acres	120	
Location	Wylie Fork of Fishing Creek	8 1/2	1547	1547
Well No.	1E-1559	Elev.	1464	
District	Grant - Wetzel County	6-5/8	2385	2385
Surface & Mineral	T.J. & Daniel Glover, Smithfield, W. Va.	5-3/16	3257	3257
Commenced	June 5, 1941	Packer - Bottom Hole		
Completed	Sept. 27, 1941	Size 6-5/8 & 5-3/16		
Volume	158,530 c.f.	Depth set 2385 - 3257		
Rock Pressure	192-5-3/16" 40 hrs. 90-6-5/8-5-3/16"-40			
Salt Water	2044-48; 2132-35.	Coal	1053	1140

clay	rd	s	0	15	Lime	dk	h	720	730
Lime	lt	h	15	20	Lime	dk	h	730	740
Rock	rd	s	20	50	Lime	dk	h	740	750
Slate	lt	s	50	75	Slate	lt	s	750	795
Lime	lt	h	75	90	Slate	bk	s	795	800
Slate	lt		90	110	Sand	wh	h	800	840
Lime	lt		110		Lime	dk	h	840	860
Lime	lt	h	110	135	Sand	wh	s	860	875
Rock	rd	s	135	150	Sand	wh	h	875	893
Rock	gy	s	150	160	Slate	dk	s	893	930
Rock	pk	w	160	165	Lime	lt	h	930	1047
Rock	lt	s	165	180	Slate	dk	s	1047	1053
Rock	rd	s	180	210	<del>Coal</del>	dk	s	1054	1058 <u>Mapletown, S.L.</u>
Rock	gy	s	210	225	Slate	dk	s	1058	1080
Rock	rd	s	225	231	Lime	lt	h	1080	1135
Lime	lt	h	231	236	Slate	lt	s	1135	1140
Sand	wh	h	236	246	<del>Coal</del> <i>ph</i>	bk	s	1140	1152
Sand	wh	h	246	256	Slate	lt	s	1152	1180
Lime	gy	h	256	266	Sand	lt	h	1180	1190
Rock	rd	s	266	300	Slate	lt	s	1190	1200
Rock	gy		300	310	Lime	gy	h	1200	1235
Rock	rd	s	310	320	Rock	rd	s	1235	1245
Rock	rd		320	335	Slate	lt	s	1245	1285
Rock	pk	w	335	352	Lime	lt	h	1285	1315
Rock	rd		352	360	Rock	rd	s	1315	1340
Slate	dk	s	360	368	Lime	dk	h	1340	1351
Slate	dk	s	368	376	Rock	rd	s	1351	1357
Slate	dk	s	376	381 <sup>SLM 406</sup>	Lime	dk	h	1357	1367
Slate	dk	s	381	386	Slate	lt	s	1367	1410
Slate	dk	s	386	396	Lime	dk	h	1410	1430
Slate	dk	s	296	401	Slate	dk	s	1430	1460
Slate	dk	s	401	410	Rock	rd	s	1460	1480
Slate	dk	s	410	431	Lime	dk	m	1480	1490
Sand	lt	h	431	440	Slate	dk	s	1490	1505
Slate	dk	s	440	450	Rock	rd	s	1505	1520
Slate	dk	s	450	460	Slate	dk	s	1520	1547
Slate	wh	s	460	470	Sand	lt	h	1547	1550
Slate	wh	s	470	480	Slate	dk	s	1550	1580
Slate	dk	s	480	490	<del>Sand</del>	lt	h	1580	1600 <u>L. Dunk. SLM</u>
Slate	dk	s	490	500	Lime	dk	h	1600	1610
Lime	lt	h	500	528	Slate	sk	s	1610	1622
Slate	dk	s	528	535	Lime	lt	h	1622	1638
Rock	rd	s	535	545	<del>Sand</del>	gy	h	1638	1672 <u>Big. Dunk.</u>
Lime	dk	s	545	560	Slate	dk	s	1672	1682
Slate	lt	s	560	570	Lime	lt	h	1682	1727
Slate	dk	s	570	580	Slate	dk	s	1727	1736
Slate	dk	s	580	590	Sand	lt	h	1736	1765
Slate	dk	s	590	600	Slate	dk	s	1765	1795
Lime	gy	h	600	610	<del>Sand, Gas</del>	lt	m	1795	1856
Lime	gy	h	610	620	Slate	dk	s	1856	1906
Lime	gy	h	620	630	<del>1st Salt Sand</del>	lt	h	1906	1933 <u>G/s</u>
Rock	rd	s	630	650	Slate	dk	s	1933	1965
Slate	dk	s	650	675	<del>Salt Sand, 2</del>	lt	h	1965	1982
Rock	gy	s	675	708	Slate	dk	s	1982	2009
Lime	dk	h	708	713	Lime	dk	h	2009	2020
Lime	dk	h	713	720	Slate	bk	s	2020	2039
					<del>Salt Sand 3</del>	lt	h	2030	2100 <u>W. 2044-48</u>

Continued on page 2

WEST VIRGINIA DEPARTMENT OF MINES  
OIL & GAS DIVISION  
W E L L R E C O R D

Page-2

Gas Well

Permit No. Wet-254  
Littleton S.E. Quad.

Company	Carnegie Natural Gas Co.,	Casing & Tubing	
Address	Pittsburgh, Pa.	10	406 406
Farm	T. J. Glover	8 1/2	1547 1547
Location	Wylie Fork of Fishing Creek	6-5/8	2385 2385
Well No.	LE-1559	5-3/16	3257 3257
District	Grant - Wetzel County	Packer - Bottom Hole	
Surface & Mineral	T.J. & Daniel Glover, Smithfield, W.Va.		
Commenced	June 5, 1941	Size	6-5/8 & 5-3/16
Completed	Sept. 27, 1941	Depth set	2385 - 3257
Volume	158,530 c.f.	Coal	1053 - 1140
Salt Water	2044-48; 2132-35		

Continued

Slate	dk	s	2100	2116	
Sand	lt	h	2116	2140	
Slate	dk	s	2140	2152	2132-35
Sand	wh	h	2152	2190	2BPH
Slate	dk	s	2190	2202	
Sand	wh	s	2202	2220	
Slate	wh	s	2220	2226	
Rock	rd	s	2226	2246	
Lime	dk	h	2246	2250	
Rock	rd	s	2250	2300	
Slate	lt	s	2300	2320	
Lime-Lime	dk	h	2320	2330	
Pencil Cave	dk	s	2330	2345	Slate
Lime, Big	lt	h	2345	2428	
Big Injun Sd.	lt	h	2428	2626	G. 81,630CF 2435-44
Slate	dk	s	2626	2700	
Lime	wh	h	2700	2730	
Slate	dk	s	2730	2780	
Lime	wh	h	2780	2810	
Slate	dk	s	2810	2850	
Lime Shells	dk	h	2850	2900	
Slate	dk	s	2900	2940	
Sand	dk	h	2940	2960	
Lime	dk	h	2960	2992	
Slate	dk	s	2992	3045	
Lime	dk	h	3045	3059	
Slate	dk	s	3059	3105	
Lime	lt	h	3105	3112	
Slate	dk	s	3112	3150	
Lime	lt	h	3150	3205	
Slate	dk	s	3205	3248	
Sand		h	3248	3265	
Slate			3265	3287	
Gordon Sand	dk	m	3287	3294	G. 112,000CF 3288-90
Slate	dk	s	3294	3318	
Sand, 4th	dk	h	3318	3338	
Slate	dk	s	3338	3367	
Lime	dk	h	3367	3380	
Slate	dk	s	3380	3416	
Sand	gy	h	3416	3425	
Slate	dk	s	3425	3449	
Total Depth					3449 S.L.M.

2345  
1464  
801

90  
133

Grant District, Wetzel County, W. Va.

By Carnegie Natural Gas Co., Pittsburgh, Pa.

Located 1.1 mi. W. of 80° 30' and 0.6 mi. S. of 39° 35' - SE - Littleton Quadrangle

Elevation, 1464' L.

Permit Wet-254.

Drilling commenced June 5, 1941; completed Sept. 27, 1941.

Gas well; volume, 158,530 cu. ft.

10" casing, 406'; 8", 1547'; 6", 2385'; 5", 3257'.

Salt water, 2041-48'; 2132-35'.

Section based on samples from 0 to 349', examined by C. N. Apocour and J. H. C. Martens.

Record from Martens Dec. 2, 1943.

Top. Bottom. Thickness.

DUNKARD GROUP AND MONONGAHELA FORMATIONS, 1152+ FEET

0 -	15	15	Clay, red
15 -	20	5	Sandstone, white, very fine, micaceous
20 -	50	30	Shale, yellow, with limy concretions
50 -	90	40	Sandstone, green to white, very fine
90 -	110	20	Shale, gray
110 -	135	25	Sandstone, white, very fine
135 -	150	15	Shale, red, soft, with small limy concretions
150 -	165	15	Shale, gray, silty
165 -	180	15	Sandstone, white, very fine, micaceous
180 -	210	30	Shale, red
210 -	225	15	Shale, green
225 -	231	6	Shale, red
231 -	236	5	Shale, green, silty
236 -	256	20	Sandstone, white, fine- to medium-grained
256 -	300	44	Shale, red, calcareous
300 -	310	10	Shale, gray
310 -	320	10	Siltstone, green, sandy
320 -	335	15	Shale, greenish-gray
335 -	352	17	Siltstone, green, 50%; brown shale, 50%
352 -	360	8	Shale, red
360 -	431	71	Shale and siltstone, green and gray
431 -	440	9	Sandstone, very light gray, very fine
440 -	460	20	Shale, gray
460 -	480	20	Siltstone, light grayish green, sandy, 50%; red shale, 50%
480 -	528	48	Shale, gray; calcareous, 522-528'
528 -	545	17	Shale, red
545 -	600	55	Shale, green
600 -	630	30	Siltstone, white, sandy
630 -	650	20	Shale, red
650 -	685	35	Shale, gray and green
685 -	695	10	Shale, green, silty, with large amount of limestone nodules
695 -	720	25	Siltstone, green, sandy, micaceous
720 -	740	20	Shale, gray, with limy concretions
740 -	760	20	Shale, gray, calcareous
760 -	770	10	Siltstone, light-gray
770 -	780	10	Shale, yellowish-green, clayey, calcareous
780 -	795	15	Shale, gray
795 -	800	5	Siltstone, greenish
800 -	840	40	Sandstone, white, micaceous
840 -	860	20	Shale, very light grayish green, calcareous
860 -	893	33	Sandstone, white, slightly micaceous
893 -	902	9	Limestone, light-brown, 50%; green and gray shale, 50%

(OVER)

Top.	Bottom.	Thickness.	
902	- 911	9	Siltstone and shale, green
911	- 930	19	Shale, grayish-green, with limy concretions
930	- 958	28	Limestone, very light brown, 60%; light-gray, calcareous shale, 40%
958	- 988	30	Siltstone and shale, green
988	- 1020	32	Limestone, very light brown
1020	- 1030	10	Siltstone, green, sandy
1030	- 1040	10	Limestone, very light brown, 50%; green shale and siltstone, 50%
1040	- 1047	7	Limestone, very light brown
1047	- 1054	7	Shale, dark-gray
1054	- 1058	4	Coal (Mapletown or Sewickley; S.L.M.)
1058	- 1077	19	Shale, light-gray
1077	- 1080	3	No samples
1080	- 1090	10	Limestone, light-brown
1090	- 1135	45	Limestone, very light gray, partly shaly, 65%; gray shale, 35%
1135	- 1140	5	Siltstone, gray, pyritic, 75%; very dark gray shale, 25%
1140	- 1152	12	Coal (Pittsburgh Coal)
CONEMAUGH FORMATION, 530 FEET			
1152	- 1180	24	Shale, gray, soft
1180	- 1200	20	Shale, very light gray, with siderite spherulites
1200	- 1210	10	Limestone, light-brown
1210	- 1220	10	Siltstone, green, sandy
1220	- 1235	15	Sandstone, white
1235	- 1245	10	Shale, red, with small limy concretions
1245	- 1285	40	Shale, green
1285	- 1295	10	Shale, of various colors, very soft
1295	- 1305	10	Limestone, brown
1305	- 1315	10	Siltstone, light-green, sandy
1315	- 1340	25	Shale, red
1340	- 1351	11	Siltstone, green, sandy
1351	- 1385	34	Shale, red, green, yellow, etc., soft and clayey
1385	- 1430	45	Shale, yellow, clayey, with limy concretions
1430	- 1460	30	Shale, red, soft, with limy concretions
1460	- 1497	37	Shale, red, 50%; green shale, 50%
1497	- 1505	8	Shale, gray, red, and yellow, calcareous
1505	- 1520	15	Shale, red, with limy concretions
1520	- 1530	10	Shale, light-gray, soft
1530	- 1547	17	Shale, green and gray; also some red shale, probably cavings
1547	- 1550	3	Sandstone, white, micaceous
1550	- 1570	20	Shale, green
1570	- 1580	10	Siltstone, green, sandy, 75%; white limestone, 25%
1580	- 1600	20	Sandstone, green, very fine
1600	- 1638	38	Shale, gray to green
1638	- 1672	34	Sandstone, white, very fine
1672	- 1682	10	Shale, gray
ALLEGHENY FORMATION, 224 FEET			
1682	- 1692	10	Shale, gray to green, 90%; coal and very dark gray shale, 10%
1692	- 1702	10	Siltstone, white, sandy, 50%; fine white sandstone, 50%
1702	- 1736	34	Shale, gray
1736	- 1765	29	Sandstone, white
1765	- 1771	6	Sandstone, white, very fine, 70%; brown limestone, 20%; dark-gray shale, 20%
1771	- 1791	20	Limestone, brown, 75%; dark-gray shale, 25%
1791	- 1795	4	Limestone, brown, 50%; gray to dark-gray shale, 50%

(CONTINUED ON PAGE 3)

Top.	Bottom.	Thickness.	
1799	- 1856	61	Sandstone, white
1856	- 1886	30	Shale, light-gray to gray
1886	- 1906	20	Siltstone and shale, gray
POTTSVILLE FORMATION, 314 FEET			
1906	- 1933	27	Sandstone, white, medium-grained
1933	- 1965	32	Shale, gray
1965	- 1992	27	Sandstone, white
1992	- 2000	8	Siltstone, black, micaceous
2000	- 2039	39	Shale, gray and black, with a little coal
2039	- 2100	61	Sandstone, white, medium- to coarse-grained, nearly all quartz (salt water, 2044-2048')
2100	- 2116	16	Shale, very dark gray
2116	- 2140	24	Sandstone, white
2140	- 2150	10	Siltstone and shale, gray
2150	- 2190	40	Sandstone, white, medium- to coarse-grained, with a little coal
2190	- 2200	10	Shale and siltstone, gray, with siderite spherulites
2200	- 2220	20	Sandstone, very light green, very fine
HAUGH CHUNK GROUP, 125 FEET			
2220	- 2310	90	Shale, red
2310	- 2318	8	Shale, red, 50%; green shale, 50%
2318	- 2326	8	Limestone, brown ("Little lime")
2326	- 2345	19	Shale, gray, disintegrating in water
GREENHIER LIMESTONE, 145 FEET			
2345	- 2375	30	Limestone, light-brown to nearly white; also shale cavings
2375	- 2428	53	Limestone, light-brown
2428	- 2470	42	Sandstone, white, fine, calcareous; larger grains are rounded and frosted (81,630 cu. ft. gas, 2435-2444')
2470	- 2490	20	Sandstone, nearly white, fine, highly dolomitic; larger grains are rounded and frosted; a little green shale, 2480-2490'
LOWER MISSISSIPPIAN AND UPPER DEVONIAN, 959+ FEET			
2490	- 2626	136	Sandstone, white, fine- to medium-grained (Big Injun Sand)
2626	- 2636	10	Siltstone, gray, 70%; darker gray shale, 30%
2636	- 2670	34	Shale, dark-gray, with a little siltstone
2670	- 2740	70	Siltstone, light-gray, sandy, 70 to 80%; gray to dark-gray shale, 30 to 20%
2740	- 2760	20	Sandstone, nearly white, very fine, 50%; gray shale and siltstone, 50%
2760	- 2770	10	Siltstone, gray, shaly, 60%; darker gray shale, 40%
2770	- 2790	20	Siltstone, gray to light-gray
2790	- 2800	10	Shale, dark-gray
2800	- 2870	70	Siltstone, gray, with darker gray shale which varies in amount from about 10 to 30%
2870	- 2910	40	Shale, dark-gray, silty
2910	- 2920	10	Shale, dark-gray, silty, 60%; gray siltstone, 40%
2920	- 2940	20	Siltstone and silty shale, gray to dark-gray
2940	- 2950	10	Siltstone and shale, gray to dark-gray, 80%; very fine white sandstone, 20% (possibly Berea Sandstone)
2950	- 2960	10	Siltstone, gray, 60%; light-gray, very fine sandstone, 40%
2960	- 2970	10	Shale, gray, 60%; light-gray siltstone and very fine sandstone, 40%
2970	- 2990	20	Sandstone, white to light-gray, very fine, silty
2990	- 3000	10	Shale and siltstone, gray
3000	- 3045	45	Shale, gray, with some silty and sandy streaks
3045	- 3059	14	Shale, red, silty, micaceous
3059	- 3090	31	Siltstone and shale, gray to greenish; also some red shale and siltstone

(OVER--Page 4)

Top.	Bottom.	Thickness.	
3090	- 3100	10	No samples
3100	- 3120	20	Shale, gray
3120	- 3131	11	Shale, gray, 70%; nearly white, very fine sandstone, 30%
3131	- 3150	19	Shale, gray; small amounts of siltstone and very fine sandstone
3150	- 3160	10	Sandstone, white, very fine, 50%; gray shale, 50%
3160	- 3180	20	Siltstone, gray, shaly
3180	- 3200	20	Sandstone, white to light-green, fine to very fine, 70%; gray shale and siltstone, 30%
3200	- 3210	10	Shale, gray, 80%; white, coarse sandstone, 20%
3210	- 3230	20	Shale, gray, silty
3230	- 3250	20	Shale, gray, partly sandy, 80%; nearly white fine to very fine sandstone, 20%
3250	- 3280	30	Sandstone, white to light-gray, fine to very fine, 50%; gray shale, 50%
3280	- 3305	25	Shale, gray
3305	- 3325	20	Sandstone, white, fine- to medium-grained, 70%; gray shale, 30%
3325	- 3395	70	Shale and siltstone, gray (driller's record gives Gordon Sand at 3387 to 3394', but samples in this interval do not show more than slight traces of sand; 112,000 cu. ft. gas, 3288-3290')
3395	- 3405	10	Shale, gray, very silty; a little nearly white sandstone
3405	- 3425	20	Shale, gray, very silty
3425	- 3435	10	Sandstone, white to light-green, very fine, 50%; gray shale, 50%
3435	- 3449	14	Shale and siltstone, gray
	3449		Total depth, SIM