

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 44

Summary of the Northern Natural Gas Co. Raymond and Blanche Lee No. 1
Ramsey County, North Dakota

Well #246, Permit #262

By Sidney B. Anderson

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Northern Natural Gas Company-Raymond and Blanche Lee #1, Ramsey County, North Dakota. NE/4 NE/4, Section 36, T. 154N., R. 63W., (660 feet from N. line, 660 feet from E. line, Section 36.) Elevation 1511 G.L., 1517 D.F.

The Northern Natural Gas Lee #1 was spudded January 8, 1953. 10 3/4" surface casing was set at 245 feet and cemented with 150 sacks of cement. The well was drilled to a total depth of 3267 feet plugged and abandoned January 17, 1953 with no shows of oil or gas detected.

Cement plugs were set at the following depths, @ 2460 w/10 sacks; @ 1920 w/10 sacks; @ 1385 w/30 sacks, @ 245 w/20 sacks and at surface w/5 sacks.

Formation top determined from sample, electric and gamma ray logs, not all lithologic formation tops called in following list.

The Red Beds lying immediately below the Piper Lime are listed as being questionable Spearfish however they may be lower Jurassic, or may possibly be Mississippian in age.

Formation Tops

Cretaceous System	
Niobrara Formation	550
Greenhorn Formation	976
Dakota	1272
Fuson	1317
Lakota	1390
Jurassic System	
Morrison Formation	1448
Sundance Formation	1520
Piper Formation	1755
Red Beds (Spearfish?)	1860
Devonian Undiff	1915
Ashern Formation	2145
Silurian System	
Interlake group	2170
Ordovician System	
Upper Stony Mtn.	2308
Lower Stony Mtn.	2377
Red River Formation	2458
Winnipeg Formation	3087
Winnipeg S. S.	3188
Pre-Cambrian	3220

300-430 Shale, green gray, (5 GY 6/1).
 560 Shale, as above sad some brown.
 630 Shale, as above and some dark gray, with white specks.
 650 Shale, green, gray.
 810 Shale, green gray to medium gray.
 1020 Shale, medium to dark gray.
 1030 Shale, medium to dark gray with white specks.
 1110 Shale, medium to dark gray with white specks.
 1140 Shale, dark gray.
 1150 Shale, medium dark gray.
 1160 Shale, dark gray.
 1170 Shale, medium dark gray.
 1210 Shale, dark gray.
 1220 Shale, medium dark gray.
 1240 Shale, dark gray.
 1245 Shale, medium dark gray.
 1250 Shale, light gray to slightly reddish.
 1280 Shale, medium dark gray.
 1300 Shale, medium dark gray, silty.
 1310 Shale, as above and few medium green quartz grains.
 1390 Shale, medium dark gray.
 1400 Shale, medium dark gray and coarse angular to subangular quartz.
 1420 Sandstone, coarse angular to subangular, colorless quartz.
 1450 Sandstone, shale, sandstone as above and some gray.
 1460 Sandstone, shale, fine to coarse sandstone some brownish
 concretionary pellets.
 1510 Sandstone, reddish orange, very fine grain silty, calcareous.
 1530 Shale, medium gray.
 1540 Sandstone, light gray, fine grain.
 1550 Sandstone, shale, light gray, fine grain.
 1560 Shale, sandstone, light gray to slight reddish gray shale and
 little light gray, fine grain.
 1580 Shale, light gray to slight reddish gray.
 1620 Shale, light gray to slight reddish gray. Few pieces of red,
 brown to light gray fine grains.
 1640 Shale, light gray and fine grain red and colorless speckled.
 1650 Shale, light reddish gray, and little oolitic limestone.
 1660 Sandstone, light gray, sandy.
 1670 Shale, medium gray to reddish gray to reddish brown.
 1680 Shale, reddish brown, little medium light gray and few pieces of
 oolitic limestone.
 1700 Shale, reddish brown.
 1710 Shale, light gray, limy.
 1720 Shale, as above and reddish brown.
 1730 Shale, reddish brown
 1740 Shale, light gray to reddish brown, limy shale and few pieces of
 fine grains, light gray.
 1750 Shale, light gray to reddish brown.
 1760 Limestone, soft whitish limestone and reddish brown shale.
 1770 Limestone, soft whitish.
 1780 Limestone, soft yellow gray, dense.
 1790 Limestone, yellow gray, dense fine grain, few pinpoint vugs.
 1800 Limestone as above, some sandy.
 1860 Limestone, yellow gray, fine grain, dense.

1870 Shale, reddish brown and little soft white anhydrite.
 1880 Shale, reddish brown and medium grayish.
 1890 Shale, reddish brown shale and little white anhydrite.
 1900 Shale, reddish brown and medium grayish.
 1910 Shale, reddish brown and little white anhydrite.
 1920 Shale, reddish brown.
 1930 Dolomite, whitish fine grain, dense.
 1940 Limestone, whitish fine grain, to finer granular limestone.
 1950 Limestone, pale pinkish, orange granular.
 1960 Dolomite, whitish fine grain, dense and some reddish granular.
 1990 Limestone, pinkish, very fine granular, slightly dolomitic.
 2010 Limestone, whitish, very fine granular with dark red inclusions and red shale coating.
 2020 Limestone, whitish to pinkish, very fine granular with red shale coating.
 2050 Limestone, whitish to pinkish, very fine granular to granular, fair intergranular porosity.
 2060 Limestone, pinkish very fine granular, some pinpoint porosity.
 2070 Limestone, pinkish granular slightly dolomite, fair intergranular porosity.
 2080 Limestone, whitish to pinkish, fine granular to granular.
 2100 Limestone, yellowish to pinkish, fine granular to fine grain dense.
 2110 Limestone, whitish to pinkish fine grain to fine granular.
 2130 Dolomite, whitish to yellow gray, vuggy dolomite, good porosity.
 2150 Dolomite, as above and few pieces of reddish dolomite.
 2160 Dolomite, whitish to pinkish, fine grain.
 2170 Dolomite, shale, as above and some reddish.
 2180 Limestone, whitish to reddish fine grain, slightly dolomite.
 2190 Dolomite, yellow gray fine grain dense.
 2210 Dolomite, yellow gray to reddish fine grain dense.
 2230 Limestone, yellow gray to pinkish oolitic and fine grain, dense.
 2250 Limestone, whitish to yellow gray, fine grain to fine granular.
 2260 Limestone, as above some slightly dolomitic.
 2270 Limestone, dolomite, whitish to yellow gray fine granular and pinkish, fine granular, dense.
 2280 Limestone, pinkish fine granular dense.
 2290 Limestone, white to pinkish fine granular, dense.
 2310 Limestone, white dolomitic, fine grain, dense.
 2340 Limestone, white to pinkish sandy-rounded quartz grains, medium grained.
 2350 Limestone, whitish dolomite with reddish inclusions, fine granular to fine grain, dense.
 2370 Limestone, whitish to pinkish fine grain, dolomitic.
 2390 Limestone, reddish fine grain, dense with reddish coating.
 2400 Shale, much dark gray, some coarse quartz, angular to subangular (cave?), little limestone yellow gray to pinkish.
 2440 Limestone, shale, pinkish fine granular and reddish and gray.
 2460 Shale, limestone, as above mostly reddish.
 2470 Dolomite, reddish fine granular dense.
 2490 Dolomite, limestone, as above and white fine grain, dense.
 2500 Dolomite, reddish fine grain, dense dolomite, few pieces of white limestone.
 2520 Limestone, yellow gray, granular slightly dolomitic, some pinpoint porosity.

2550 Limestone, whitish to pinkish, gray, fine grain to fine granular.
2590 Limestone, whitish fine grain, dense.
2600 Dolomite, yellow gray, fine granular.
2610 Dolomite, yellow gray to pinkish, fine grain to fine granular.
2630 Dolomite, pinkish to pale yellow brown, fine grain, dense.
2660 Dolomite, pinkish to pale yellow brown, fine grain, to fine granular, some pinpoint porosity.
2670 Limestone, very pale yellow brown to pinkish granular, dolomitics.
2710 Dolomite, pale yellow brown to yellow gray, granular, fair intergranular porosity, some vugs.
2730 Dolomite, pale yellow brown to pinkish granular.
2750 Limestone, pale yellow brown to pinkish granular.
2830 Limestone, as above and some yellow gray, fragment.
2350 Limestone, whitish fine grain to fine granular.
2900 Limestone, whitish to pinkish fine grain, soft.
2910 Limestone, very pale yellow brown fine grain, dense with reddish inclusions.
2930 Limestone, as above, slightly fragment.
2940 Limestone, very pale yellow brown fine grain, dense.
3010 Limestone, as above, reddish, slightly fragment, fossiliferous.
3020 Limestone, shale as above, reddish, dark gray and little green.
3030 Limestone, shale as above and few pieces of coarse angular quartz.
3080 Shale, limestone, dark gray shale and limestone as above.
3090 Shale, limestone, greenish, some dark gray and little limestone as above.
3100 Shale, greenish waxey.
3190 Shale, greenish waxey shale and few pieces of dark gray.
3220 Sandstone, much medium to coarse round quartz, some shale as above.
3240 Sandstone, granite as above and some red granite.
3250 Granite, much red granite.