NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR N0. 234

Summary of the Calvert Exploration Company - F.L. Robertson #1-A
Stutsman County, North Dakota
Well No. 673 - Permit No. 687

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The Calvert Exploration Company - Robertson #1-A is located in the NE 1/4 NE 1/4 section 26, T. 138N., R. 67W., 660' from the north line, 660' from the east line; Stutsman County, North Dakota. Robertson #1-A is located 40' west. Elevation 1908' G.L., 1919' K.B.

The Calvert Exploration Company - Robertson #1-A was spudded October 27, 1954, and 10 3/4" casing was set at 585 feet with 375 sacks of cement. The well was drilled to a total depth of 3682 feet, plugged and abandoned November 8, 1954.

Logs:
- Electric
- Gamma Ray-Neutron

Cores: None

Plugging Record:
- 2895-2940 with 15 sacks of cement
- 2747-2792 with 15 sacks of cement
- 2404-2449 with 15 sacks of cement
- 2239-2284 with 15 sacks of cement
- 2047-2092 with 15 sacks of cement
- 540- 585 with 15 sacks of cement
- 0- 45 with 5 sacks of cement

Formation tops were determined from samples and electric logs. Not all of the formation tops were picked. Color names used are those of the Rock Color Chart distributed by the Geological Society of America.

FORMATION TOPS

Cretaceous System	
Niobrara fm.	1042
Greenhorn fm.	1515
Dakota group	
Mowry fm.	1808
Newcastle fm.	1872
Fall River fm.	2046
Mississippian System	
Bottineau interval	2405
Bakken fm.	2726
Ordovician System	
Stony Mountain fm.	2745
Red River fm.	2897

Winnipeg fm. 3463
Precambrian System
Granite 3680

At various intervals to check for lost circulation 10,000 pounds of cottonseed hulls and 1,960 pounds of Controlwool were used.

0-30 Till, sandy, light olive gray, calcareous.
30-270 Till, sandy, light olive gray, calcareous, few shale fragments.
270-480 Till, sandy, light olive gray, calcareous, percentage of shale fragments increasing.

Pierre fm. 480
480-570 Shale, medium gray, calcareous, few quartz grains and limestone pebbles (cavings ?).
570-640 Shale, medium light gray, lesser percentage of quartz grains.
640-910 Shale, medium light gray, slightly calcareous, Inoceramus prisms scattered throughout.

Niobrara fm. 1093
910-1140 Shale, medium light gray to dark gray, slightly calcareous.
1140-1170 Shale, medium light gray to dark gray, few particles of pyrite, quartz and limestone scattered throughout.
1170-1230 Shale, medium light gray to medium gray, quartz feldspar, and limestone grains, white specked.
1230-1380 Shale, medium light gray to medium gray, minor amounts of quartz, red ocher, pyrite, and one fossil tooth.
1380-1500 Shale, medium to dark gray, slightly calcareous.

Greenhorn fm. 1515
1500-1620 Sandstone, medium gray, fine-grained, few Inoceramus prisms and shale fragments, some pyrite fragments.
1620-1680 Shale, medium light gray to medium gray, slightly calcareous, fossiliferous.
1680-1800 Shale, medium gray to dark gray, calcareous, whitish specks, fossiliferous, pyrite.

Mowry fm. 1808
1800-1820 Shale, medium gray to dark gray, calcareous, fossiliferous.

Newcastle fm. 1872
1820-1880 Shale, medium light gray to dark gray, few quartz grains, fossiliferous.
1880-1960 Sandstone, variegated, fine-grained, few lignite and shale fragments, Inoceramus prisms and pyrite also present.
1960-2000 Shale, medium gray, minor amount of quartz grains.

Fall River fm. 2046
2000-2060 Shale, medium gray, very slightly calcareous.
2060-2140 Shale, light gray to medium gray, few quartz particles.
2140-2180 Shale, light gray to medium gray, abundant quartz grains (cavings ?).
2180-2240 Sandstone, quartzose, fine-to-medium-grained, white to pink, few shale fragments.
2240-2260 Shale, medium gray, few quartz grains.

2260-2340 Sandstone, quartzose, fine-to-medium-grained, white to light pink, few shale fragments.
2340-2380 Sandstone, quartzose, white to light pink, small black globules (probably used to check for lost circulation).

Bottineau interval 2405
2380-2410 Sandstone, quartzose, fine-to-medium-grained, white to light pink, small black globules, few shale fragments.
2410-2510 Limestone, white to pink, medium gray, sucrosic, fossiliferous.
2510-2672 Limestone, variegated, sublithographic to sucrosic, few chert fragments, fossiliferous.
2672 Circulation for one hour.

Bakken fm. 2726
2672-2730 Limestone, buff to light pink, fine-grained to sucrosic, few chert fragments.

Stony Mountain fm. 2745
2730-2759 Limestone, dolomitic, variegated, sucrosic.
2759 Circulation for one hour.
2759-2800 Dolomite, limy, white to buff, fossiliferous.
2800-2820 Dolomite, buff to pink, very fine-grained.
2820-2850 Dolomite, buff to pink, very fine-grained, with a few shale fragments.
2850-2900 Dolomite, variegated, sucrosic.

Red River fm. 2897
2900-2930 Dolomite, limy, buff to pink, very fine-grained to sucrosic.
2930-2950 Dolomite, variegated, few quartz grains (cavings?).
2950-3020 Dolomite, limy, pinkish, sucrosic.
3020-3270 Dolomite, white to buff with a few pink chips, finely crystalline to sucrosic.
3270-3320 Dolomite, white to buff with a few pink chips, finely crystalline to sucrosic, few shale fragments.
3320 Circulation for one hour.
3320-3350 Dolomite, limy, white to pink, sucrosic.
3350-3390 Dolomite, limy, white to pink, sucrosic, few shale fragments.

Winnipeg fm. 3467
3390-3490 Limestone, white to buff, sublithographic to sucrosic, few pyrite fragments.
3490 Circulation for one hour.
3490-3530 Limestone, white to buff, sublithographic to sucrosic, few quartz grains.
3530-3550 Shale, medium dark gray, waxy, few limestone fragments.
3550-3580 Shale, medium dark gray, waxy, few pyrite fragments.
3580-3600 Shale, gray to green, fissile.
3600-3660 Shale, medium to dark green, waxy.
3660-3670 Shale, medium to dark green, waxy, fossiliferous (conodont and crinoid stem).
3670-3680 Shale, medium to dark green, waxy, with a few chips of granite (?).
3680-3682 Same as above.
3682 Circulation for one hour.
3680 Precambrian granite (?)