

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 203

Summary of the Calvert Exploration Company - Fred and Signa Wright No. 1
McHenry County, North Dakota
Well No. 769 - Permit No. 782

By Dan E. Hansen
November, 1958

The Calvert Exploration Company Fred and Signa Wright No. 1 Location:
Center NW NW section 14, T. 154N. R. 78W. Elevation: 1481 feet K.B. Total
Depth: 6050 feet.

The Calvert Exploration Company Fred and Signa Wright was spudded
December 9, 1954 and completed and plugged as a dry hole January 10, 1955.

Logs: Electric and Gamma ray-Neutron

Cores: None

Tests: None

Casing Record:

Set 10 3/4" surface casing at 285 feet with 150 sacks of cement.

Plugging Record:

Plug 1	0'- 45'	5 sacks cement
Plug 2	240'- 281'	15 sacks cement
Plug 3	2355'-2400'	15 sacks cement
Plug 4	2640'-2685'	15 sacks cement
Plug 5	3210'-3255'	15 sacks cement
Plug 6	3500'-3545'	15 sacks cement
Plug 7	4770'-4815'	15 sacks cement
Plug 8	5855'-5990'	15 sacks cement

Formation tops were determined by samples and mechanical logs corrected
to electric log tops. Color names are from the 1948 Rock Color Chart which was
distributed by the National Research Council, Washington, D.C.

FORMATION TOPS

Cretaceous System	
Niobrara formation	1447
Greenhorn formation	1870
Mowry shale	2185
Fall River Sandstone	2403
Jurassic System	
Piper Limestone	3150
Triassic System (?)	
Spearfish formation	3312
Mississippian System	
Charles formation	3530
Mission Canyon formation	
M-3	3877

M-2	3985
M-1	4016
Lodgepole formation	4170
Englewood formation	4804
Devonian System	
Lyleton formation	4832
Nisku formation	4890
Duperow formation	4989
Souris River formation	5258
Dawson Bay formation	5582
Ashern formation	5857
Silurian System	
Interlake group	5897
Total Depth	6050

0-30	Samples missing.
30-60	Sand, coarse quartz grains for the most part with grains that are buff dolomite, igneous, and metamorphic.
60-90	Gravel, composition as above.
90-330	Clay, medium light gray and brownish gray, fragment of micaceous calcareous light gray sandstone.
330-340	Clay, as above. Much brownish gray and reddish brown clay, probably burned clay.
340-450	Shale medium gray massive and lumpy with small amounts medium dark gray shale.
450-1240	Shale, medium gray massive. Traces light gray bentonite.
1240-1330	Shale, as above, with medium dark gray soft shale.
1330-1870	Shale, medium dark gray to dark gray soft lumpy. Traces of light gray and light bluish gray bentonite.
1870-1990	Shale as above. Traces of light brownish gray fragmental limestone and dark gray shale with "white specks".
1990-2440	Shale, medium dark gray to dark gray.
2440-2760	Shale as above, with sandstone fine to medium-grained quartzose pyrite cemented and loose quartz grains, medium to very coarse grained. Small amounts of light brownish gray iron carbonate "Pellets". Traces of reddish brown and light gray clays.
2760-2830	Shale as above, small amounts of fine-grained light gray calcareous cemented quartzose sandstone and traces of light gray shale.
2830-2900	Samples as above, small amount of greenish gray shale.
2900-2920	Shale as above, small amounts of white to very light gray limestone carbonaceous streaks and reddish brown shale. Traces of pyrite.
2920-2960	Shale, greenish gray splintery and platy. Shale dark gray as above.
2960-2990	Shale, greenish gray as above and reddish brown shale slightly calcareous.
2990-3040	Shale, as above traces very light brownish gray, limestone fragmental to sublithographic.
3040-3070	Sandstone fine- to medium-grained quartzose, calcareous cement. Shales as above.
3070-3080	Limestone very light brownish gray, fragmental coarse-grained

and varies to sublithographic dense. Shale greenish gray splintery and gray splintery to platy.

3080-3090 Shales as above, small amount of fine-grained quartzose sandstone calcareous cement.

3090-3110 Shales as above.

3110-3130 Shales as above, traces brownish red shale, white anhydrite, very light gray shale, and very fine-grained quartzose sandstone.

3130-3160 Limestone, white to very light gray dense sublithographic. Shales as above.

3160-3170 Limestone, very light brownish gray to very light gray sublithographic arenaceous fine quartz grains, shales as above.

3170-3210 Limestone, very light brownish gray to very light gray, dense, sublithographic.

3210-3220 Limestone as above, traces of pinkish orange and yellow-brown shale.

3220-3260 Limestone, very light gray, dense, sublithographic greenish gray medium gray and red brown shales.

3260-3290 Limestone dolomitic, white to very light gray dense very fine-grained grainy to sublithographic traces of pinpoint porosity.

3290-3370 Much gray red brown, and greenish gray shales, small amounts of pinkish and white coarse crystalline anhydrite.

3370-3400 Samples missing.

3400-3410 Cavings, mostly gray shale.

3410-3420 Sample missing.

3420-3470 Sandstone, pale reddish brown fine-grained, quartzose shaly and silty, loose fine-medium angular to rounded, frosted quartz grains.

3470-3520 Sandstone, pale reddish brown fine-medium-grained angular to rounded, frosted iron-stained, quartzose generally the grains are loose silty and shaly, traces anhydrite inclusions.

3520-3540 Limestone, pinkish gray, fine-grained, micro-granular to sublithographic, dense, slightly dolomitic, white anhydrite, inclusions.

3540-3570 Limestone as above, much grayish red calcareous massive shale.

3570-3630 Anhydrite, white to light gray, very small amount samples are generally cave material, chiefly gray shale.

3630-3640 Limestone, yellowish gray fragmental, fine coarse-grained angular to rounded subcrystalline in part, traces of ostracods.

3640-3710 Shale, light gray very calcareous and dense white to light gray anhydrite.

3710-3740 Limestone, yellowish gray to light gray fragmental fine-grained, granular anhydrite and fragments of white dense anhydrite.

3740-3750 Anhydrite, white to light gray dense with gray shale.

3750-3760 Limestone, yellowish gray fragmental fine-grained, granular and subcrystalline.

3760-3810 Anhydrite, light gray to white, dense limey and shaly, poor samples.

3810-3820 Samples missing.

3820-3830 Anhydrite and shale as above.

3830-3840 Samples missing.

3840-3870 Anhydrite and shale, as above, traces of yellowish gray limestone as above.

3870-3890 Limestone, yellowish gray fragmental fine-coars-grained, angular to rounded subcrystalline, traces of oolite. Anhydrite inclusions.

3890-3970 Limestone, yellowish gray, fragmental, oolitic to subcrystalline fine-coarse-grained, dense, vuggy porosity much recrystallization.

3970-3990 Limestone, light gray fragmental fine-grained grainy and granular, argillaceous to silty, good intergranular and pinpoint porosity, circulation samples at 3978 for one-half hour.

3990-4030 Anhydrite, white to light gray dense crystalline and light gray shale.

4030-4080 Limestone, yellowish gray fragmental fine-medium-grained partially oolitic granular to grainy and subcrystalline.

4080-4160 Limestone, yellowish gray fragmental fine-grained, granular, traces vuggy and intergranular porosity, small amounts of oolitic and subcrystalline limestone medium grained.

4160-4210 Limestone, light gray shaly fragmental, medium-grained dense grainy to slabby.

4210-4330 Limestone, light gray slightly shaly fragmental fine-medium-grained dense grainy slabby and sublithographic trace of shell fragments, traces silty limestone at 4210-4220.

4330-4340 Limestone, light gray, fragmental, slightly shaly, fine-medium-grainy, oolitic and granular.

4340-4400 Limestone, light gray, fragmental, slightly shaly, fine-medium-grained, grainy and granular to slabby subcrystalline, dense, traces shell fragments.

4400-4430 Limestone, light gray fragmental fine-medium-grained, grainy and oolitic to slabby subcrystalline, dense.

4430-4440 Samples missing.

4440-4460 Limestone as above.

4460-4520 Limestone, light gray fragmental, slightly shaly, fine-medium-grained, grainy and granular to slabby subcrystalline. Dense shell fragments.

4520-4670 Limestone, light gray, fragmental, very fine to fine-grained grainy and subcrystalline to crystalline, dense. Traces shell fragments, traces very light gray chert.

4670-4810 Limestone, light gray, fragmental very fine to fine-grained, grainy and subcrystalline to crystalline dense. Interbedded with medium to medium dark gray calcareous shale.

4810-4830 Limestone, very light gray, very fine-grained fragmental, subcrystalline to dense crystalline, cherty.

4830-4840 Shale, dark gray to black, soft, flaky.

4840-4900 Shale, gray cave? traces of pale reddish brown, pale red and greenish gray, splintery, calcareous shale, poor samples.

4900-4920 Shale, pale red, soft and greenish gray, splintery, traces anhydrite, poor samples.

4920-4940 Limestone, moderate reddish orange, fine-grained, crystalline, anhydritic.

4944- Circulation, 1 1/4 hours six samples dolomite, limey, light brownish gray, fine medium-grained, granular limestone as above.

4940-5000 Dolomite, limey, light brownish gray, fine grained, granular intergranular porosity, light brownish gray crystalline, very limey dolomite, dense inclusions of anhydrite.

5000-5010 Sample missing.

5010-5020 Shale, pale red, greenish gray and light gray with a grayish pink fine grained, grainy and slabby limestone, anhydrite inclusions.

5020-5030 Limestone as above.

5032- Circulation 1 hour three samples. Dolomite, very limey anhydritic, fine-grained, granular.

5030-5040 Dolomite as above.

5040-5080 Limestone, yellowish gray, anhydritic and with anhydrite inclusions, fine-grained, dense, sublithographic dolomite as above.

5080-5120 Dolomite, very limey anhydritic, yellowish gray to very light brownish gray, granular, fine-grained and limestone, dense, anhydritic very fine-grained to sublithographic, trace of light gray fine-grained sandstone at 5080-5090.

5090- Circulation, 1 hour four samples. Samples as above.

5120-5160 Dolomite, very limey, anhydritic, light gray to light brownish gray, fine-medium-grained, granular.

5160-5180 Limestone, dolomitic, yellowish gray very-fine-grained to sublithographic, trace of anhydrite.

5180-5230 Dolomite, light brownish gray, limey, anhydritic, fine-medium-grained, granular.

5230-5260 Dolomite, light gray to light brownish gray, dense, very-fine-grained, crystalline, granular, dolomite as above.

5260-5310 Dolomite, yellowish gray, sublithographic, very poor samples, mainly lost circulation material.

5310-5460 Limestone, dolomitic, light gray to yellowish gray, fine-grained, grainy to sublithographic, anhydrite inclusions, traces anhydrite and green gray shale.

5460-5490 Limestone, as above with dolomite, very light brownish gray, fine-grained, granular.

5494 Circulation 1 hour three samples. Dolomite very light gray to light brownish gray, fine grained grainy and granular. Limestone as above.

5490-5530 Limestone as above. Dolomite as above.

5530-5600 Dolomite, very light gray to yellowish gray, very fine-grained, crystalline, vuggy porosity, traces of green gray and pale red shale.

5600-5680 Limestone, light gray to yellowish gray, fine grained fragmental, slabby to sublithographic.

5680-5710 Shale, pale red, non-calcareous, massive with small amounts of greenish gray, and pale red purple splintery shales. Dolomite, very pale red to yellowish gray, argillaceous, very to fine grained, grainy.

5710-5730 Dolomite, light brownish gray, limey, fine grained, granular.

5730-5760 Limestone, dolomitic, light gray, argillaceous, dense, very fine grained, grainy to sublithographic.

5760-5790 Dolomite, light brownish gray, fine-grained, granular.

5790-5860 Limestone, dolomitic, very light brownish gray to light gray, dense, very fine-grained, crystalline, slabby, and grainy to sublithographic.

5860-5890 Limestone as above, but samples are chiefly cave, much gray shale.

5890-5900 Shale, pale red to pale reddish purple, dolomitic, small amounts soft, white to pink limestone.

5900-5950 Dolomite, limey, dense, moderate orange pink to white very fine-grained, grainy to sublithographic, traces of red shale.

5950-5980 Dolomite, white to grayish pink, dense, very fine-grained, crystalline to lithologic with a few medium grained subcrystalline to rhombic fragments.

5980- Circulation 1 1/2 hours, six samples. Dolomite, white to pinkish gray, very fine-grained, crystalline to lithographic, some vuggy, rhombic, and crystalline, medium grained fragments, traces of white fine-grained, granular dolomite.

5980-6030 Dolomite as above.

6030- Circulation 1 hour four samples. End of samples.

6050 Total Depth