

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 54

Summary of the Calvert Exploration Co. J. A. Fylken No. 1
McHenry County, North Dakota
Well #387, Permit #403

By Morton Strassberg
April, 1954

Calvert Exploration Co.-Fylken No. 1, McHenry County, North Dakota, SE NE Section 11, T. 156N., R. 75W. (1980 feet from N. line and 660 feet from E. line). Elevation: 1491 G.L., 1502 K.B.

The Calvert Exploration Co.-Fylken No. 1 was spudded September 6, 1953 and 10 3/4 inch surface casing was set at 206 feet with 123 sacks of cement. The well was abandoned September 14, 1953.

Cement plug were set at the depths:

2935'	-	3021'	with 30 sacks
2365'	-	2408'	with 15 sacks
2030'	-	2073'	with 15 sacks
206'	-	249'	with 15 sacks
0	-	43'	with 15 sacks

The following formation tops were determined from samples, electric and micro logs, not all lithologic formation tops called in the following list. Colors were determined from rock color chart.

Formation tops

Cretaceous System	
Niobrara Formation	980
Greenhorn Formation	1538
Dakota	2030
Jurassic System	
Morrison Formation	2335
Sundance Formation	2401
Piper Formation	2620
Triassic System	
Spearfish Formation	2873
Mississippian System	
Charles Formation	2952
Mission Canyon Formation	2977
Lodgepole Formation	3227
Total Depth	3435

200-440	Shale, medium gray.
440-680	Shale, medium light to medium gray.
680-770	Shale, medium light to medium gray, bentonitic.
770-800	Shale, medium light gray.
800-860	Shale, medium light gray, bentonitic.

860-890 Shale, medium light to medium gray, bentonitic, micaceous.
 890-980 Shale, medium light gray, bentonitic.
 980-1040 Shale, dark gray, white specks.
 1040-1130 Shale, dark gray, white specks, bentonitic.
 1130-1280 Shale, medium dark to dark gray, calcareous, bentonitic.
 1280-1370 Shale, medium gray, calcareous.
 1370-1430 Shale, medium light to medium gray, bentonitic.
 1430-1460 Shale, medium gray, bentonitic.
 1460-1520 Shale, medium to light olive gray, bentonitic.
 1520-1550 Shale, medium dark to dark gray, bentonitic.
 1550-1610 Shale, medium dark gray, white specks very light gray limestone and calcite prisms.
 1610-1670 Shale, medium to medium dark gray, white specks, calcite prisms.
 1670-1790 Shale, medium dark gray, calcareous, bentonitic.
 1790-1820 Shale, medium gray calcareous, white specks.
 1820-2000 Shale, medium to medium dark gray, calcareous.
 2000-2030 Shale, medium to medium dark gray.
 2030-2060 Sandstone, medium to very coarse grained, subangular to subrounded, frosted.
 2060-2090 Shale, medium gray, very fine grained sandstone and coarse free quartz.
 2090-2120 Siltstone, medium gray and silty shale, iron stained concretions and coarse free quartz.
 2120-2180 Sandstone, very fine to very coarse grained, medium light to medium gray silty shale.
 2180-2300 Shale, medium light to medium gray, calcareous, coarse grained free quartz.
 2300-2330 Shale, medium gray, silty, medium to coarse free quartz.
 2330-2350 Sandstone, very fine grained, calcareous, and very coarse grained free quartz, medium light to medium gray shale.
 2350-2370 Shale, medium gray silty very fine grained sandstone and coarse grained free quartz.
 2370-2380 Shale, medium gray, coarse grained free quartz.
 2380-2400 Shale, medium light gray, silty and medium gray, coarse grained free quartz.
 2400-2410 Shale, medium gray and medium light gray, silty, calcareous, medium to coarse grained free quartz.
 2410-2430 Limestone, very light gray, fine grained to fragmental arenaceous, medium gray, silty shale, medium to coarse grained free quartz.
 2430-2450 Shale, medium gray and medium light gray, calcareous, silty, very fine grained sandstone and coarse grained free quartz, very light to light gray fragmental limestone.
 2450-2470 Shales medium light gray calcareous, very fine grained, fragmental limestone, medium to coarse grained free quartz.
 2470-2480 Shale, medium gray, calcareous very light to light gray fragmental limestone.
 2480-2500 Shale, medium light to light gray, silty, calcareous.
 2500-2530 Shale, pale reddish brown, silty calcareous and medium gray calcareous.
 2530-2560 Shale, pale reddish brown, flakey and medium gray.
 2560-2600 Shale, medium gray, calcareous, silty and pale red, calcareous.
 2600-2610 Sandstone, medium light gray, fine grained, calcareous, micaceous.
 2610-2620 Shale, medium light gray, calcareous, silty, medium to coarse grained free quartz.

2520-2630 Dolomite, yellowish gray, fine grained, pinpoint porosity.
 2630-2640 Dolomite, yellowish gray fine grained and very light gray, chalky medium gray and pale reddish brown shale.
 2640-2650 Limestone, yellowish gray, sublithographic, pale red and medium gray shale.
 2650-2690 Limestone, yellowish gray, sublithographic to fine grained, arenaceous, medium gray and pale red shale.
 2690-2720 Shale, medium gray and pale reddish brown, silty, calcareous.
 2720-2740 Limestone, very light gray, sublithographic, medium gray shale.
 2740-2760 Shale, medium gray and pale reddish brown.
 2760-2790 Shale, medium gray, pale reddish brown and olive gray, very light gray, sublithographic limestone.
 2790-2798 Shale, light greenish gray, medium gray and pale red.
 2798-2810 Anhydrite, white sucrosic.
 2810-2820 Dolomite, medium gray to pale yellowish brown sublithographic.
 2820-2830 Shale, medium to medium dark gray, calcareous.
 2830-2840 Shale, medium to medium dark gray, white sucrosic anhydrite.
 2840-2890 Shale, medium to pale reddish brown, calcareous, white to pale reddish brown sucrosic anhydrite.
 2890-2900 Shale, pale reddish brown and medium light gray, white sucrosic anhydrite.
 2900-2905 Sandstone, pale red to pale reddish brown, very fine to medium grained, argillaceous, pale reddish brown shale.
 2905-2915 Siltstone, pale red and very fine to medium grained free iron stained quartz.
 2915-2920 Sandstone, fine to coarse grained, iron stained, subrounded to rounded.
 2920-2925 Shale, pale reddish brown, silty.
 2925-2950 Sandstone, pale red, very fine to medium grained, rounded.
 2950-2965 Shale, medium gray and pale red.
 2965-2970 Dolomite, pinkish gray, fine grained, medium gray and pale red shale, white anhydrite.
 2970-2975 Anhydrite, white sucrosic.
 2975-2985 Dolomite, yellowish gray, fine to medium grained, calcareous.
 2985-2986 ½ hour circulation. Limestone, yellowish gray, oolitic to fragmental.
 2986-2995 Limestone, yellowish gray, oolitic to fragmental, medium light to medium dark gray, shale.
 2996 ½ hour circulation. Limestone, white to very light gray, oolitic.
 2996-3000 Shale, medium dark gray, white to very light gray oolitic limestone.
 3000-3010 Limestone, white to yellowish gray, fragmental to oolitic.
 3010-3020 Limestone, grayish orange pink, sublithographic.
 3020-3030 Limestone, yellowish gray, oolitic to fragmental.
 3030-3040 Limestone, yellowish gray, sublithographic and oolitic.
 3040-3050 Limestone, yellowish gray, oolitic some intergranular porosity.
 3050-3080 Limestone, yellowish gray, oolitic to fragmental.
 3080-3085 Dolomite, pale red, sublithographic.
 3085-3090 Shale, pale reddish brown and medium light gray, white to pale red sucrosic anhydrite.
 3090-3095 Dolomite, pale yellowish brown sublithographic.
 3095-3100 Shale, medium gray.
 3100-3105 Dolomite, white to very light gray, sublithographic.
 3105-3115 Anhydrite, white massive to sucrosic.

3115-3120 Dolomite, white to very light gray, microsucrosic, white anhydrite.
 3120-3125 Dolomite, white to very light gray, microsucrosic.
 3125-3140 Limestone, yellowish gray oolitic to fragmental pinpoint porosity, chert.
 3140-3145 Limestone, yellowish gray, fine grained to fragmental, yellowish gray, microsucrosic dolomite with intergranular porosity.
 3145-3150 Limestone, white oolitic.
 3150-3160 Dolomite, yellowish gray, microsucrosic, pinpoint porosity.
 3160-3175 Limestone, very light gray oolitic.
 3175-3185 Limestone, yellowish gray, microsucrosic, dolomite.
 3185-3190 Limestone, yellowish gray, fine grained to fragmental.
 3190-3195 Dolomite, yellowish gray, sublithographic.
 3195-3210 Limestone, yellowish gray, oolitic to fragmental.
 3210-3220 Limestone, yellowish gray microsucrosic, dolomitic and very light gray oolitic limestone.
 3220-3225 Dolomite, white to very light gray, fine grained.
 3225-3230 Limestone, yellowish to pinkish gray, fragmental, medium gray shale.
 3230-3235 Limestone, yellowish gray to pinkish gray, fragmental limestone, medium gray and pale reddish brown shale.
 3235-3240 Limestone, medium light gray, fine grained, medium gray and pale red brown shale.
 3240-3260 Limestone, light to yellowish gray, fragmental to oolitic, medium light gray and pale reddish brown shale.
 3260-3280 Shale, medium light to medium gray and pale reddish brown, medium light gray, fine grained limestone.
 3280-3290 Limestone, yellowish gray, oolitic.
 3290-3300 Shale, medium light to medium gray, yellowish gray fine grained limestone.
 3300-3340 Limestone, light gray, fragmental.
 3340-3380 Limestone, light gray, fragmental to oolitic.
 3380-3390 Shale, medium and greenish gray and pale reddish brown.
 3390-3395 Limestone, light gray, fragmental to oolitic, medium light and pale reddish brown shale.
 3395-3400 Limestone, light gray, fragmental to oolitic.
 3400-3420 Limestone, light gray, fragmental to oolitic, medium light and pale reddish brown shale.
 3420-3435 Limestone, light gray, fragmental to oolitic.