

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 65

Summary of Wilson Germany and Cardinal Drilling Co.- W. H. Dickenson #1

Wells County, North Dakota
Permit #441, Well #425

by Laverne B. Nelosn

April 1954

Wilson Germany and Cardinal Drilling Company-W. H. Dickenson #1, Wells County, North Dakota. C SE SE Section 32, T. 145N., R. 72W. (660 feet from east line and 660 feet from south line). Elevation G.D. 2051 K.B. 2060.

The Wilson Germany and Cardinal Drilling Company-Dickenson #1 was spudded November 11, 1953. 10 3/4" casing was set at 401 feet and cemented with 275 sacks of cement. The well was drilled to a total depth of 3865 feet, plugged and abandoned November 20, 1953. No cores or DST's were taken.

Cement plugs were set at the following depths: at surface w/5 sacks, at 501 feet w/15 sacks, at 2594 feet w/10 sacks, at 2719 feet w/10 sacks, at 3309 feet of/10 sacks.

Formation tops were determined from samples and electric log, not all lithologic formations were called in following list. Colors were determined from rock color chart.

FORMATION TOPS

Cretaceous System	
Niobrara	1511
Greenhorn	2046
Dakota	2592
Jurassic System	
Morrison	2835
Sundance	2912
Piper	3112
Triassic System	
Spearfish	3182
Mississippian System	
Amsden	3310
Big Snowy	3338
Charles	3415
Mission Canyon	3473
Lodgopole	3679

<u>From</u>	<u>To</u>	<u>Formation</u>
300	360	Medium light gray, lumpy, disaggregated, some medium to coarser subangular quartz grains. Shale.

<u>From</u>	<u>To</u>	<u>Formation</u>
360	520	Shale, medium light gray, lumpy.
520	640	Shale, light gray, micaceous.
640	790	Shale, greenish gray, compact, massive.
790	940	Shale, medium gray, lumpy, disaggregated, calcareous.
940	1320	Shale, medium light gray, platy, slightly brittle.
1320	1480	Shale, medium gray, lumpy, disaggregated, bentonitic, pyrite.
1480	1510	Shale, medium dark gray, lumpy, disaggregated.
1510	1570	Shale, dark gray, flaky, disaggregated.
1570	1600	Shale, medium gray, flaky, disaggregated, calcareous.
1600	1750	Shale, medium gray, flaky, disaggregated, calcareous, first white specks, little pyrite.
1750	1870	Shale, light gray, lumpy, disaggregated, calcareous.
1870	1990	Shale, medium gray, flaky, calcareous.
1990	2050	Shale, medium light gray, lumpy, disaggregated, calcareous.
2050	2140	Shale, medium light gray, massive, firm, calcareous, first numerous appearance of Inoceramus fragments, second white specks.
2140	2200	Shale, dark gray and medium gray, flaky, Inoceramus fragments.
2200	2230	Shale, medium gray, flaky, Inoceramus fragments, some bluish white bentonite.
2230	2470	Shale, dark gray and medium dark gray, flaky, pyrite, few Inoceramus fragments, bluish white bentonite.
2470	2520	Shale, medium gray, splintery, brittle, calcareous, bluish white bentonite.
2520	2650	Shale, medium dark gray, flaky, pyritic.
2650	2740	Shale, medium dark gray, flaky, much siliceous, bulbous concretions, few medium, subangular, clear, quartz grains.
2740	2760	Shale, medium dark gray, platy, brittle, slightly calcareous.
2760		Shale, as above, some siliceous concretions. 3/4 Circulation.
2760	2780	Shale, medium gray to medium dark gray, flaky slightly calcareous.
2780	2800	Shale, medium gray, flaky, calcareous, few siliceous concretions and fine, subrounded, quartz grains.
2800	2900	Sandstone, fine to medium, subangular and rounded, clear quartz, few siliceous concretions and red ironstone concretions, much medium gray shale, 2820-60 some coarse, subangular frosted quartz.
2900	3020	Shale, greenish gray, platy, brittle and medium gray flaky shale.
3020	3060	Shale, pale reddish to moderate reddish brown, some greenish gray shale, a few quartz grains.
3060	3080	Missing, samples.
3080	3100	Shale, greenish gray and medium gray, a little moderate reddish brown shale.
3100	3120	Shale, pale reddish to moderate reddish brown, some greenish gray and medium gray shale, some with sublithographic limestone.

<u>From</u>	<u>To</u>	<u>Formation</u>
3120	3140	Limestone, yellowish gray, sublithographic, dense, dolomitic, a little greenish gray and medium gray shale, little sucrosic gypsum.
3140	3170	Shale, medium dark gray, splintery, brittle, some limestone as above, some pale reddish brown, very fine grained sandstone 3150-60 much yellowish gray and pale red limestone.
3170	3200	Limestone, yellowish gray, sublithographic, dense, a little shale as above.
3200	3220	Shale, medium gray, platy, brittle, a little limestone as above.
3220	3240	Limestone, yellowish gray, very fine grained to sublithographic, some shale as above.
3240	3280	Limestone, same as above, some pale reddish brown shale and gypsum.
3280	3290	Shale, medium gray, greenish gray, pale reddish brown, some yellowish gray, sublithographic limestone and gypsum.
3290	3310	Shale, moderate reddish brown, medium gray, some limestone and gypsum.
3310	3320	Shale, pale reddish brown and greenish gray, some dense, sublithographic yellowish gray limestone gypsum.
3320	3350	Shale, same as above, some fine to medium rounded, frosted quartz, gypsum.
3350	3390	Shale, same as above, no quartz, gypsum.
3390	3430	Shale, same as above, some pale red dolomite and limestone, gypsum.
3430	3460	Shale, as above, some dolomite and limestone a little lithographic anhydrite, little gypsum.
3460	3470	Anhydrite, bluish gray, dense, lithographic, shale and dolomite as above.
3470	3550	Limestone, yellowish gray, dense, sublithographic, some bluish gray anhydrite and shale, some pale reddish brown shale.
3550	3570	Limestone, yellowish gray and pale red, dense, sublithographic gypsum and anhydrite.
3570	3650	Limestone, yellowish gray, medium grained, sucrosic. Some good interstitial porosity, some white oolitic limestone.
3650	3660	Shale, light gray to gray, platy, some limestone as above.
3660	3690	Limestone, variegated white and light red, coarse grained, some pinpoint porosity.
3690	3760	Limestone, white and yellowish gray, dense, some oolitic limestone, shaly, some grainy limestone.
3760	3810	Limestone, grayish orange pink, medium grained, some oolitic limestone.
3810	3820	Shale, greenish gray and medium gray, some pale reddish brown shale and limestone.
3820	3865	Shale, medium light gray, massive, flaky, a little grainy limestone.
3865		Total depth.