

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 202

Summary of the Caroline Hunt Trust Estate - W. E. Bauer No. 1
Sheridan County, North Dakota
Well No. 693 - Permit No. 707

By Dan E. Hansen
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The Caroline Hunt Trust Estate - W. E. Bauer No. 1 is located 660 feet from the south line and 666 from the west line of Section 19, T. 146N., R. 76W., Sheridan County. The elevation is 1972 G.L. and 1984 K.B.

The well was spudded August 29, 1954, drilled to a total depth of 7140 feet, bottomed in the Deadwood formation, and was plugged September 26, 1954.

Logging Record:

Electric log	299-7134	9/25/54
Gamma Ray-Neutron	20-7133	9/25/54
Microlog	4000-7131	9/25/54
Laterolog	3500-7130	9/25/54
Microlaterolog	3500-7131	9/25/54

Cores: None

Tests: None

Casing Record: 10 3/4 inch surface pipe at 300 feet.

Plugging Record:

Plug #5	0- 21	10 sacks cement
Plug #4	234- 298	30 " "
Plug #3	2857-2914	20 " "
Plug #2	4263-4320	20 " "
Plug #1	6195-6252	20 " "

Formation tops picked from mechanical logs and samples, adjusted to electric log. Colors determined from the Rock Color Chart.

FORMATION TOPS

Cretaceous System	
Pierre shale	676
Niobrara formation	1703
Greenhorn formation	2301
Mowry shale	2656
Fall River sandstone	2913
Jurassic System	
Piper limestone	3520
Triassic System (?)	
Spearfish formation	3737
Mississippian System	
Charles formation	4035
Mission Canyon formation	4298

MC-2	4424
Lodgepole formation	4578
Englewood formation	5177
Devonian System	
Nisku formation	5209
Duperow formation	5268
Souris River formation	5470
Ashern formation	5783
Silurian System	
Interlake group	5818
Ordovician System	
Stony Mountain formation	6074
Red River formation	6270
Winnipeg formation	
shale	6922
sandstone	7086
Deadwood formation	7129
0-300	No samples.
300-320	Gravel, igneous and dolomite pebbles.
320-380	Clay, silty, brownish gray, with a small amount of coal fragments. Traces of quartz, dolomite, and igneous rock fragments.
380-390	Clay, olive gray to light brownish gray.
390-430	Clay, silty, as above, and gravel, as above.
430-550	Clay, light olive gray to light gray, silty, with reddish gray clay from 500-530.
550-590	Gravel, igneous, dolomite, and quartz pebbles. Clay as above.
590-630	Sand, igneous, dolomite, and quartz grains and light gray shale granules.
630-650	Lignite and sand, as above.
650-690	Gravel, as above.
690-840	Clay, siltstone, light gray, and fine-grained quartzose sand. Gravel as above.
840-910	Shale, light gray to medium gray, soft, silty, traces of glauconite.
910-1100	Shale, medium gray, soft, massive. Traces of light blue-gray, light gray bentonite.
1100-1600	Shale, medium gray, massive.
1600-1720	Shale, medium gray, massive to spongy, traces light gray bentonite.
1720-1900	Shale, medium gray as above, with medium dark gray shale.
1900-1980	Shale, medium dark gray to dark gray, soft, spongy and medium gray shale, very calcareous, "first white specks."
1980-2330	Shale, medium dark gray, soft, flaky and spongy. Traces of light gray bentonite.
2330-2350	Samples missing.
2350-2390	Shale, as above.
2390-2500	Shale, medium dark gray, very calcareous, calcite fragments, small amounts of light gray, fragmental limestone. "Second white specks".
2500-2920	Shale, dark gray, flaky, soft.
2920-2940	Shale, as above. Small amounts of pyrite cemented, fine- to medium-grained quartzose sandstone.

2940-2960 Shale, as above. Calcareous siltstone, light gray, to silty limestone. Traces of iron carbonate "pellets". Traces of coarse-grained, angular quartz.

2960-3220 Shale, as above. Traces of iron-carbonate "Pellets". Traces of fragments of fine-to medium-grained quartzose sandstone.

3220-3300 Shale, as above. With small amounts of fine-grained, light gray, quartzose sandstone, light brownish gray clay, and traces of greenish gray shale.

3300-3350 Shale, medium gray. Shale, light gray, silty, and traces of soft, greenish gray shale. Traces of light gray silt and very-fine-grained sandstone.

3350-3450 Shale, greenish gray, fissile, partly silty. Traces light olive gray and light brownish gray shale. Medium gray shale, as above. Traces of white and very light gray, very-fine-grained calcareous sandstone. Traces very light brownish gray limestone, fragmental. Traces coarse-grained, rounded, clear, quartz grains. Traces of shell fragments and crinoid stem fragments.

3450-3500 Shale, greenish gray, as above, and moderate brown, massive shale. Traces fine-grained, very-light-gray quartzose sandstone, calcareous. Traces shell fragments and crinoid stem fragments. Small amount pink anhydrite. One stellate crinoid columnal *Isocrinus* (?) sp.

3500-3530 Shale, as above.

3530-3540 Sandstone, light gray, quartzose, fine-grained, calcite cemented, with inclusions of gypsum. Shale, as above.

3540-3560 Shales, as above.

3560-3670 Limestone, very light yellowish gray to light gray, dense, sub-lithographic, dolomitic. Shales, as above.

3670-3690 Limestone, very light gray to white, dense, sublithographic to lithographic with small amounts white and light gray chert. Shales, as above.

3690-3750 Shale, pale reddish brown, massive with anhydrite, white.

3750-3800 Shale, moderate brown, massive. Traces anhydrite, as above.

3800-3810 Siltstone, pale reddish brown, slightly calcareous.

3810-3820 Sandstone, pale reddish brown, very-fine- to medium-grained, angular to rounded, quartzose, siltstone as above.

3820-3850 Siltstone, as above.

3850-3870 Siltstone, as above. Shale, moderate brown. Sandstone, pale reddish brown, very fine-grained, calcite and anhydrite cemented with coarse, rounded, quartz grains.

3870-3910 Shale, grayish red, soft. Limestone, dolomitic, fine-grained, crystalline, dense, pale red. Traces white anhydrite, yellowish brown shale, and siltstone as above.

3910-3950 Shale, pale red, splintery and shale, moderate red.

3950-3970 Limestone, dolomitic, grayish orange pink, fine-grained, dense. Shale, as above.

3970-4010 Poor samples. Shale, as above.

4010-4050 Poor samples. Much gray shale and small amounts of shale and limestone as above.

4050-4070 Limestone, light yellowish gray, very-fine-grained, chalky, to medium-grained, grainy to subcrystalline. Traces of medium-grained oolites, and white anhydrite. With medium gray shale.

4070-4080 Shale, medium gray, slightly calcareous. Limestone, as above.

4080-4110 Limestone, as above.

4110-4120 Anhydrite, white to light gray. Limestone and gray shale as above.

4120-4140 Limestone, light yellow gray to very light brown gray, fine-grained, grainy. Small amounts pale red shale. Much gray shale. Poor samples.

4140-4250 Shale, pale brown to pale red, fissile. Small amounts of limestone as above. Traces of dense, light gray anhydrite shale and anhydrite.

4250-4270 Anhydrite, white and shale, light gray, anhydritic, slightly calcareous. Brown and red shale as above.

4270-4300 Anhydrite, light gray to white, shaly, and light gray shale. Traces yellowish gray fine-grained, subcrystalline and grainy limestone.

4300-4330 Limestone, very light brownish gray, fine-to coarse-grained, grainy, microgranular, slabby, and oolitic to pisolitic. Small amounts of well cemented, medium-grained, irregular oolites. Anhydrite, as above.

4330-4340 Shale, pale brown and pale red. Small amounts of limestone as above.

4340-4350 Limestone, very light brownish gray, fine-to coarse-grained, oolitic to pisolitic, also grainy and slabby.

4350-4430 Shale, as above. Small amounts of limestone as above.

4430-4450 Anhydrite, very light gray to white and light gray shale. Red shale as above.

4450-4460 Shale, pale brown and pale red.

4460-4510 Limestone, very light brownish gray to yellow gray, fine-medium-grained, grainy, oolitic, and slabby. Red shale, as above.

4510-4550 Limestone, very light brownish gray to yellowish gray, fine-medium-grained, microgranular, slabby, and oolitic. Oolites are irregular and flattened.

4550-4570 Limestone, light gray, fine-grained, grainy, and microgranular, shell fragments, argillaceous.

4570-4630 Limestone, light gray, argillaceous, grainy, microgranular and slabby. Light, gray shale. Traces of fossil fragments.

4630-4660 Limestone, light gray, argillaceous, grainy and slabby, dense with traces of flattened, irregular oolites.

4660-4970 Limestone, light gray, fragmental, fine-medium-grained, grainy and slabby, angular shell fragments with dense and chalky, argillaceous, matrix. Traces of brachiopod shell fragments.

4970-5010 Limestone, light gray, very fine-grained, dense, cherty, sublithographic to lithographic.

5010-5040 Limestone, light gray, fine-grained, dense, grainy to sublithographic.

5040-5090 Surface samples, mostly coarse quartz grains and igneous rock fragments with traces of limestone as above.

5090-5100 Limestone, as above.

5100-5180 Limestone, light gray, fine-grained, grainy to sublithographic.

5180-5210 Limestone, as above. With brownish-black to black, carbonaceous shale.

5210-5270 Dolomite, light brownish gray to brownish gray fine-medium-grained, sucrosic, pinpoint to vugular porosity.

5270-5490 Dolomite, limey, light brownish gray to brownish gray, micro-sucrosic, fine- to medium-grained to dense, sublithographic in part. Traces of greenish gray shale at 5270-5290.

5490-5550 Dolomite, light brownish to light gray, limey, microsucrosic to grainy, fine-grained, dense.

5550-5640 Limestone, light gray, grainy, fine-grained to dense, slabby, sublithographic. Traces red shale at 5630-5640.

5640-5720 Limestone, dolomitic, light brownish gray to light gray, dense, fine-grained, subcrystalline to grainy with traces of fossil fragments.

5720-5750 Limestone, as above. With red-brown and pale red dolomitic shale and argillaceous dolomite; traces of arenaceous limestone; light brownish gray dolomite; and traces of greenish gray shale.

5750-5800 Dolomite, limey, very light brownish gray to light gray, fine-grained, grainy. With much dark gray shale.

5800-5830 Limestone, light gray, fine-grained, grainy to sublithographic. Much gray shale.

5830-5850 Dolomite, limey, white to pinkish gray, anhydritic, fine-grained, dense, to lithographic.

5850-5930 Dolomite, very light pinkish orange, subcrystalline to micro-sucrosic, very fine-grained to lithographic.

5930-6000 Dolomite, very light pinkish gray, subcrystalline to micro-sucrosic, very fine-grained to lithographic.

6000-6050 Dolomite, white to very light yellowish gray, very fine-grained, microsucrosic to sublithographic.

6050-6060 Dolomite, as above, with reddish gray dense, sublithographic dolomite, argillaceous.

6060-6070 Dolomite, white to pinkish gray, dense, from sublithographic to lithographic. Reddish gray dolomite as above.

6070-6080 Dolomite, as above, with traces of red shale.

6080-6090 Dolomite, silty, pinkish gray, to yellowish gray, red shale, orange-red dolomite shale, and traces of reddish-gray very fine-grained dolomitic quartzose sandstone.

6090-6100 Dolomite, limey, brownish gray, very fine-grained, subcrystalline. Dolomite, as above.

6100-6140 Dolomite, arenaceous and sandstone, very fine-grained dolomitic, light gray. Also, light gray, dense, sublithographic, limey dolomite. Traces of well rounded, frosted, medium quartz grains.

6140-6180 Dolomite, light brownish gray, microsucrosic.

6180-6270 Limestone, light gray, fragmental, fine- to coarse-grained, shell fragments, argillaceous. Many fragments of bryozoan remains and brachiopod shells.

6270-6370 Limestone, very light brownish gray, dense, very fine-grained, grainy to sublithographic. Traces of anhydrite crystals. Traces of microsucrosic limestone.

6370-6410 Limestone, dolomitic, yellowish gray, fine-grained, microsucrosic, traces pinpoint and vugular porosity. Traces of fragments with psuedo-oolites.

6410-6800 Limestone, dolomitic, fine-grained, microsucrosic to sublithographic, very light brownish gray to yellowish gray. Traces of shell fragments.

6800-6940 Limestone, light gray to light yellowish gray, sublithographic.

6940-6970 Shale, light greenish gray, calcareous, limestone as above.

6970-7090 Shale, greenish gray, splintery.

7090-7110 Sandstone, fine-grained, quartzose, calcareous cement with loose grains of well rounded medium quartz grains. Shale, as above, with dark gray shale. T.D. of samples, 7110.

7140 Total Depth. Driller's measurement.