NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR N0. 145

Summary of the Caroline Hunt Trust Estate-John Waltz Jr. #1
Well No. 665 - Permit No. 679

by John L. Rainer

Caroline Hunt Trust Estate - John Waltz Jr. No. 1, Sheridan County, North Dakota. Location: Center NE NE Section 15 - Twp. 148 N. - Rge. 76W. Elevation: 1781 Grd., 1792 K.B. Total depth 6782'.

The Caroline Hunt Trust Estate - John Waltz Jr. No. 1 was spudded August 2, 1954; drilled to a total depth of 6782 ft; found dry and plugged September 3, 1954. No drill stem tests or cores were taken. Electrical, Micro and Gamma Ray logs were run by Schlumberger and Gamma Ray - Neutron logs were run by Lane Wells September 2 and 3, 1954.

Casing Record

Set 10 3/4" surface casing at 344 feet with 300 sacks of cement.

Plugging Record

Plug 1	Ground level	10 sacks cement
Plug 2	304' to 344'	20 sacks cement
Plug 3	2494' to 2550'	20 sacks cement
Plug 4	3844' to 3900'	20 sacks cement
Plug 5	5686' to 5770'	30 sacks cement

No oil shows reported.

Formation tops were determined from samples and electric logs. Doubtful or obscure formation tops were not picked. Color names and identifying numbers are from the 1948 color chart distributed by the National Research Council, Washington, D.C.

FORMATION TOPS

Cretaceous system	
Pierre formation	422
Niobrara formation	1415
Greenhorn formation	2054
Dakota group sandstones	2597
Jurassic system	2883?
Piper limestone	3210
Triassic system	
Spearfish formation	3445
Mississippian system	
Charles formation	3576
Mission Canyon formation	3940
Lodgepole formation	4187
Englewood formation	4789
Devonian system	
Lyleton formation	4811
“Nisku” formation	4840

Duperow formation		4890
Ashern formation		5555
Silurian system		
Interlake group		5575
Ordovician system		
Stony Mountain formation		
Upper member	5772	
Lower member	5862	
Red River formation	5962	
Winnipeg formation		
shale member	6560	
sandstone member	6735	
Total Depth	6782	

344 - 350	Predominantly cement from drilling out of surface casing set at 340'. Quartz sand, clear to stained, angular to subrounded. Little shale, medium light gray, dense, compact. Little lignite.
350 - 420	Shale and quartz sand as above. Little lignite.
420 - 500	Shale, light olive gray 5Y6/1, lumpy, slightly bentonitic. Little lignite. Little sand as above.
500 - 600	Shale, medium light gray, lumpy, slightly bentonitic, little micaceous, sandy and silty.
600 - 750	Shale, silty, sandy and slightly bentonitic as above with much glauconite as pellets dispersed throughout the shale.
750 - 860	Shale as above. Shale, light gray, compact, micaceous.
860 - 900	Shale, medium light gray, lumpy, silty, micaceous. Little glauconite.
900 - 1000	Shale, medium light gray, compact, foliated. Few Inoceramus prisms.
1000-1090	Shale as above. Shale, medium light gray, lumpy, bentonitic.
1090-1190	Shale, medium light gray, compact, foliated.
1190-1250	Shale as above. Bentonite, white.
1250-1330	Shale as above.
1330-1420	Shale, medium light gray, compact, foliated. Shale, medium light gray, lumpy, bentonitic.
1420-1450	Shale, black, fissile.
1450-1540	Shale as above. Shale, medium dark gray, lumpy, bentonitic. Bentonite, bluish white 5B9/1, micaceous.
1540-1560	Shale, medium gray with “white specks”, foliated, calcareous.
1560-1700	Shale medium to medium dark gray, spongy, lumpy, bentonitic. Little pyrite.
1700-1920	Shale as above.
1920-1950	Shale as above. Shale, medium to dark gray, fissile.
1950-1990	Shale as above. Inoceramus prisms.
1990-2000	Shale, grayish black to black with “white specks”, calcareous.
2000-2050	Shale, black, spongy. Shale, medium light gray, foliated. Little shale with “white specks” as above. Inoceramus prisms.
2050-2080	Shale, grayish black to black, foliated, “white specks”, calcareous.
2080-2100	Shale, medium light gray, lumpy, few included quartz grains. Inoceramus prisms. Little pyrite.
2100-2110	Quartz grains, subangular, clear to stained. Subrounded limestone pellets. Shale, medium light to medium dark gray, foliated. Inoceramus prisms, little pyrite.

2110-2130 Shale, medium dark to dark gray, foliated, some with "white specks" and calcareous. Quartz grains and little limestone as above. Inoceramus prisms.

2130-2150 Shale, medium light to medium gray, lumpy. Little shale as above. Some quartz grains and limestone as above. Inoceramus.

2150-2160 Subangular, quartz and subrounded limestone sand. Shale, medium light, gray foliated to medium dark gray with "white specks". Inoceramus.

2160-2200 Shale, dark gray, foliated, some"white specks", little bentonite. Inoceramus prisms.

2200-2360 Shale, medium gray, lumpy, bentonitic. Inoceramus prisms.

2360-2400 Shale, dark gray, lumpy, slightly bentonitic. Inoceramus prisms. Little shale, dark gray with "white specks".

2400-2580 Shale, medium to dark gray, foliated.

2580-2690 Shale as above. Little quartz sand, subangular, clear to stained. Few Inoceramus prisms. Little pyrite.

2690-2710 Missing.

2710-2730 Sand, unconsolidated, subangular to subrounded quartz sand. Shale as above. Little pyrite.

2730-2750 Shale as above. Little sandstone, white, fine grained, pyritic cement.

2750-2780 Sand, unconsolidated, course, subangular to subrounded, clear quartz sand.

2780-2790 Shale, medium to dark gray, foliated.

2790-2820 Sand, unconsolidated, course, subangular to subrounded, clear quartz sand.

2820-2840 Shale, medium to dark gray foliated. Little sand as above. Little pyrite.

2840-2870 Sand as above.

2870-2880 Shale, medium to dark gray foliated. Little sand as above.

2880-2940 Shale and little sand as above. Little shale, greenish gray 5G6/l, waxy slightly calcareous. Little siltstone, yellowish gray 5Y8/1, calcareous.

2940-2950 Shale, dark gray, foliated. Little siltstone as above.

2950-3000 Shale, medium to dark grays foliated, greenish gray 5G6/1, waxy slightly calcareous. Little siltstone, yellowish gray 5Y8/1, calcareous.

3000-3020 Shale, medium dark gray to black, foliated. Little bentonite.

3020-3030 Shale, medium gray, foliated, greenish gray 5G6/1, waxy slightly calcareous.

3030-3060 Shale, medium dark to dark gray foliated. Little limestone, yellowish gray 5Y8/1, fragmental.

3060-3110 Shale, light to dark gray foliated to fissile, shale, greenish gray, waxy. Little limestone, yellowish gray, some with gray streaks. Fragmental.

3110-3160 Shale as above, shale, moderate brown 5YR4/4, subwaxy, calcareous.

3160-3180 Shale as above. Little gypsum. Little dolomite, pale yellowish brown, microsucrosic.

3180-3190 Missing.

3190-3200 Shale, medium to dark gray, foliated, shale, greenish gray 5GY6/1, subwaxy.

3200-3210 Limestone, white to very pale orange, sublithographic to fragmental. Little chert, white.

3210-3230	Dolomite, pale yellowish brown, microsucrosic, dense. Chert, very light gray.
3230-3250	Dolomite as above. Little gypsum. Shale, very light gray, dense, highly calcareous.
3250-3300	Limestone, white to very pale orange, finely crystalline, dense. Variegated shale, splintery.
3300-3380	Limestone, very pale orange, microcrystalline, dense. Little shale as above.
3380-3410	Limestone and shale as above. Little gypsum.
3410-3460	Shale, greenish gray 5GY6/1, foliated, grayish red 10R4/2, massive, gypsum.
3460-3490	Siltstone, pale reddish brown 10R5/4, gypsiferous, slightly calcareous. Shale as above.
3490-3560	Siltstone, pale reddish brown, gypsiferous, included quartz sand grains, rounded, frosted. Shale as above.
3560-3570	Limestone, very pale orange, microcrystalline, dense. Shale, grayish red, massive, shale, greenish gray, foliated, calcareous. Little gypsum.
3570-3590	Limestone, very pale orange to pale yellowish brown to grayish pink, microcrystalline to oolitic. Shale as above. Little gypsum.
3590-3610	Shale as above. Gypsum.
3510-3630	Shale and gypsum as above. Dolomite, grayish orange 10YR7/4 to light red 5R6/6, microcrystalline, silty.
3630-3710	Limestone, very pale orange 10YR8/2, microcrystalline, dense, pale brown anhydrite filling vugs. Shale as above. Little gypsum.
3710-3740	Shale as above. Dolomite, very light gray, microcrystalline. Gypsum.
3740-3750	Limestone, pale yellowish brown, fragmental, anhydrite.
3750-3770	Shale, moderate reddish brown, massive, greenish gray, foliated calcareous. Dolomite, very light gray, microcrystalline, silty. Gypsum.
3770-3790	Anhydrite, light gray.
3790-3820	Dolomite, yellowish gray 5Y8/1, microcrystalline, dense. Anhydrite as above.
3820-3830	Anhydrite, white, very light gray, grayish pink. Little dolomite as above.
3830-3850	Limestone, very pale orange, microcrystalline, anhydrite.
3850-3920	Shale, moderate reddish brown, massive, greenish gray, foliated, calcareous. Anhydrite.
3920-3930	Dolomite, very pale orange, microcrystalline, dense. Shale and anhydrite as above.
3930-3980	Limestone, very pale orange, dense to slightly vuggy to oolitic.
3980-4040	Limestone, very pale orange, granular with pinpoint porosity to slightly oolitic.
4040-4070	Anhydrite, light gray to grayish pink. Little limestone as above.
4070-4110	Limestone, pale yellowish brown, granular to microsucrosic, some pinpoint porosity, slightly dolomitic.
4110-4150	Limestone, very pale oranges fragmental. Little limestone as above.
4150-4170	Limestone as above, some oolites.
4170-4230	Limestone, pale yellowish brown to medium gray, fragmental, argillaceous, fossiliferous.
4230-4390	Limestone, pale yellowish brown to medium gray, fragmental to oolitic, argillaceous, fossiliferous.

4390-4480	Limestone, light to medium light gray, fragmental to granular, argillaceous, fossiliferous.
4480-4490	Limestone, medium light gray, fine grained, dense, argillaceous.
4490-4540	Limestone, pale yellowish brown, fragmental, fossiliferous.
4540-4580	Limestone as above. Little chert.
4580-4600	Limestone, medium light gray, fragmental, argillaceous, fossiliferous.
4600-4720	Limestone, pale yellowish brown, medium light gray, fragmental. Chert, medium dark gray.
4720-4750	Limestone, medium light gray, argillaceous, fossiliferous.
4750-4780	Limestone yellowish gray, fragmental.
4780-4800	Shale, dark gray, carbonaceous, slightly calcareous, lumpy.
4800-4810	Dolomite, yellowish gray, microsucrosic, silty, shale, dark gray, foliated.
4810-4820	Calcareous shale, moderate reddish brown 10R4/6, light gray, lumpy. Dolomite, grayish pink 5R8/2, greenish gray 5GY6/1, very pale orange, and light gray, microcrystalline, argillaceous.
4820-4030	Dolomite, as above.
4830-4860	Dolomite, pale brown 5YR5/2, granular, little vuggy porosity.
4860-4890	Dolomite, pale yellowish brown, granular, vuggy.
4890-4920	Dolomite, pale yellowish brown, microsucrosic, anhydrite. Dolomite, medium grain, microcrystalline, argillaceous. Little shale, greenish gray, fissile.
4920-4940	Dolomite, pale yellowish brown, granular to microsucrosic, anhydritic. Anhydrite. Little shale as above.
4940-5080	Dolomite, pale brown, granular, pinpoint porosity, anhydritic.
5080-5090	Limestone, very pale orange 10YR8/2, pale yellowish brown 10YR6/2 and little pale red 10R6/2, dense, finely crystalline.
5090-5130	Limestone, very pale orange to pale yellowish brown, finely crystalline to microsucrosic, dense. Little argillaceous limestone, medium light gray, dense.
5130-5150	Dolomite, pale yellowish brown, microsucrosic, dense.
5150-5270	Dolomite, medium light gray to pale yellowish brown, microsucrosic, dense. Little anhydrite.
5270-5290	Dolomite as above. Limestone, medium gray, argillaceous, dense.
5290-5320	Limestone, very pale orange to pale yellowish brown, finely crystalline, dense. Little argillaceous limestone as above.
5320-5350	Dolomite, pale brown 5YR5/2, sucrosic, pinpoint porosity. Anhydrite cleavage fragments.
5350-5370	Limestone, very pale orange to pale yellowish brown, finely crystalline, dense.
5370-5390	Limestone as above. Shale, dark greenish gray 5GY4/1, foliated.
5390-5400	Limestone and shale as above. Dolomite, pale reddish brown, 10R5/4, argillaceous, fine grained, dense.
5400-5440	Dolomite, very pale orange, finely crystalline, dense. Dolomite, pale reddish brown, argillaceous, fine grained, dense.
5440-5470	Dolomite, very pale orange, finely crystalline, dense.
5470-5490	Limestone, pale yellowish brown to brownish gray, fragmental, dense, fossiliferous.
5490-5510	Limestone as above. Little limestone, mottled white and pale red 10R6/2 sublithographic.
5510-5540	Dolomite, pale red 10R6/2, finely crystalline to microsucrosic, dense.
5540-5560	Limestone, white, sublithographic. Dolomite, yellowish gray 5Y8/1, dense, very finely crystalline, anhydritic.

5560-5580	Dolomite, pale red 10R6/2 to grayish red 10R4/2, argillaceous, dense. Shale, medium light gray to dark gray, greenish gray 5GY6/1 to dark greenish gray 5GY4/1, foliated, little calcareous.
5580-5590	Limestone, white, sublithographic. Shale and dolomite as above.
5590-5700	Dolomite, very pale orange 10YR8/2, pale red 10R6/2, and yellowish gray 5Y8/1, slightly siliceous, fine grained, dense.
5700-5740	Dolomite, very pale orange, slightly siliceous, fine grained, dense.
5740-5750	Shale, medium gray, massive. Dolomite as above.
5750-5770	Dolomite, very pale orange, little pale red 10R6/2, fine grained, dense, slightly siliceous.
5770-5810	Dolomite as above with few included quartz sand grains.
5810-5850	Dolomite, yellowish gray 5Y7/2, finely granular, silty, few included quartz sand grains.
5850-5870	Dolomite, pale yellowish brown with dark gray banding, finely granular, silty, little pinpoint porosity.
5870-5890	Limestone, light gray, fossiliferous, argillaceous. Dolomite as above.
5890-5930	Limestone, light gray with dark gray to black shale streaks, fossiliferous, predominantly bryozoa, fragmental. Few quartz sand grains.
5930-5960	Limestone as above. Considerable quartz sand grains, clear, rounded to subangular. Shale, light to dark gray.
5960-5990	Limestone, pale yellowish brown, some dolomitic, finely crystalline, dense.
5990-6020	Dolomite, pale yellowish brown, microsucrosic, dense.
6020-6070	Dolomite, pale yellowish brown, microcrystalline, dense, slightly anhydritic.
6070-6170	Dolomite, pale yellowish brown, microsucrosic to finely granular, dense.
6170-6200	Dolomite as above. Limestone, very pale orange, sublithographic.
6200-6350	Limestone, very pale oranges sublithographic to fragmental. Dolomite as above.
6350-6400	Limestone, very pale orange to yellowish gray 5Y7/2, finely crystalline, fossiliferous. Dolomite, pale yellowish brown, microsucrosic, dense.
6400-6430	Limestone, yellowish gray 5Y7/2, very finely granular, slightly dolomitic, dense.
6430-6480	Limestone as above. Dolomite, pale yellowish brown, microsucrosic. Quartz sand and dark gray shale caving.
6480-6600	Limestone, yellowish gray 5Y8/1 to pale yellowish brown, fragmental, fossiliferous, dense. Quartz sand caving as above.
6600-6630	Limestone, yellowish gray 5Y7/2 to light greenish gray 5GY8/1, finely crystalline, argillaceous. Shale, dark greenish gray 5G4/1, foliated.
6630-6740	Shale as above. Limestone and quartz sand caving as above.
6740-6780	Sandstone, clear, subangular to rounded, course, friable quartz grains. Shale and limestone caving as above.
6780	Total Depth.