Summary of the Pletcher Oil & Gas Co., and Signal Drilling and Exploration Co. Boehm #1
Morton County, North Dakota
Well No. 2185 - Permit No. 2197

by Herbert A. Mendoza
February 1960

The Fletcher-Signal, Boehm #1, located in Central SW, NE, Section 11, T. 139N., R. 82W., Morton County, North Dakota. Elevations of K.B. 1861 ft.; G.L. 1852 ft.

The well was spudded on February 21, 1959 and drilled to a depth of 5350 ft.; plugged and abandoned as a dry hole on March 14, 1959.

Logs Run:
Schlumberger Electric
Schlumberger Laterolog
Schlumberger Microlaterolog

Core Record: None

Tests: None

Casing Record:
Surface pipe 8 5/8" 24# set at 678' with 200 sacks of cement.

Plugging Record:
#1 15 sacks of cement at 5173 (Mission Canyon)
#2 15 sacks of cement at 4770 (Charles)
#3 20 sacks of cement at 4040 (Minnelusa)
#4 15 sacks of cement at 3240 (Dakota)
#5 25 sacks of cement at base of surface casing
#6 5 sacks of cement at top of surface casing

Formation tops were determined by the samples and logs. Color names used are those of the National Research Council Color Chart.

FORMATION TOPS

Cretaceous System
Pierre formation 825
Niobrara formation 2000
Greenhorn formation 2530
Dakota group 2937
Fall River member 3225
Jurassic System
Piper limestone 3783
Triassic System
Spearfish formation 3980
Pennsylvanian System
Minnelusa formation 4000
Amsden formation 4242
Mississippian System

Big Snowy group 4400

Madison group

Poplar interval 4755
Ratcliffe interval 4926
Midale sub-interval 5036
Frobisher-Alida interval 5067
Tilston interval 5295

40-420 Sandstone, dark yellowish brown (10YR4/2), medium grained, glauconitic, limy, common shale, medium gray, carbonaceous, clayey to silty, spongy, rare lignite, dark gray.

420-540 Shale as above, abundant clay aggregates.

540-720 Shale, medium dark gray, silty, abundant siltstone, light gray, fine grained, loosely cemented, rare lignite.

720-960 Siltstone, greenish gray (5GY6/1) to light gray, fine grained, loosely to well cemented, calcareous, common shale, medium gray, platy.

960-1170 Shale, medium dark gray, platy, silty, rare white specks, rare bentonite, light bluish gray (5B7/1), soft.

1170-1710 Shale, medium light gray, blocky, hard, clayey, rare bentonite white, micaceous, rare calcite prisms and white specks.

1710-1920 Shale, dark gray to medium light gray, soft, splintery, common bentonite, light bluish gray (5B7/1), spongy, soft, common pyrite, amorphous.

1920-2040 Shale as above, abundant limestone, brownish gray (5YR4/1), fine crystalline, dense, broken concretions (?), common pyrite nodules.

2040-2070 Shale, dark gray, platy, abundant white specks, common calcite prisms.

2070-2100 Missing.

2100-2520 Shale, medium light gray, hard, blocky, rare white specks, common recrystallized calcite and calcite prisms.

Greenhorn 2530

2520-2610 Shale, dark gray to medium gray, splintery, common calcite prisms and white specks.

2610-2730 White specks, common calcite prisms, common shale as above.

2730-2820 Shale, medium dark gray, platy, rare white specks.

2820-2940 Shale, grayish black, platy to fissile, common calcite prisms, reworked.

Dakota Group 2937

2940-2970 Same as above.

2970-3000 Cavings.

3000-3030 Shale, grayish black, soft, platy, common calcite prisms.

3030-3090 Shale, black to grayish black, fissile.

3090-3230 Shale, dark gray to medium dark gray, soapy, rare white specks and calcite prisms.

3230-3310 Shale, dark gray, platy, rare sandstone, very light gray to white, very fine grained, well cemented, quartzose, rare bentonite, very light gray, spongy.

3310-3480 Shale as above, abundant quartz, granules, sub-rounded, abundant sandstone, light gray, fine grained, well cemented, micaceous.
3480-3540 Shale, dark gray, soft, platy, common calcite prisms, common quartz grains.
3540-3770 Shale, greenish gray to dark gray, soft, platy, common sandstone, light gray, fine grained, slightly glauconitic, rare limestone, grayish pink (5YR7/2), medium crystalline, grainy.

Piper 3783
3770-3790 Same as above.
3790-3830 Shale as above, common limestone, very light gray to grayish orange pink (10R8/2), very fine crystalline, dense.
3830-3860 Limestone as above, dense to pinpoint porosity, common shale as above.
3860-3960 Limestone, pale red purple (5RP6/2) to very light gray, fine crystalline, dense, pinpoint porosity, common shale, greenish gray (5GY6/1) to medium light gray, soft, soapy, slightly platy, common sandstone, light gray, very fine grained, probably cavings (?)

Spearfish (?) 3980
3960-3980 Shale, dark gray to greenish gray (5G6/1) to moderate red (5R4/6), soft, platy, partly anhydritic, little limestone as above, anhydrite, moderate reddish orange (10R6/6), dense.

Minnelusa 4000
3980-4020 Shale and anhydrite as above, chert, grayish pink (5R8/2) smooth.
4020-4060 Shale and chert as above, common sandstone, moderate pink (5R7/4), very fine grained, loosely cemented, calcareous, common anhydrite white, grainy, slightly calcareous.
4060-4110 Shale, greenish gray (5G6/1) to pale reddish brown (10R5/4) to medium dark gray, platy, common to abundant sandstone, pale red (10R6/2), very fine grained, loosely cemented, calcareous, common anhydrite, white to moderate orange pink (10R7/4), grainy to dense, rare limestone, pale yellowish brown (10YR6/2), fine crystalline, dense.
4110-4150 Sandstone, shale, and limestone as above.

Amsden 4242
4150-4200 Cavings.
4200-4330 Limestone, pale red (5P6/2) to yellowish gray (5Y7/2), fine crystalline, dense to grainy.
4330-4400 Limestone, yellowish gray (5Y7/2) to grayish red purple (5RP4/2), fine crystalline, dense, abundant cavings (?)

Big Snowy 4400
4400-4410 Same as above.
4410-4500 Shale, dark gray to medium gray, platy to splintery, common limestone as above.
4500-4550 Limestone, yellowish gray (5Y7/2), fine crystalline, dense, oolitic, little shale as above.
4550-4710 Shale, variegated, very little limestone as above, abundant quartz grains, rounded, clear.
4710-4755 Shale, variegated, common sandstone, very light gray, fine to medium grained, loosely cemented, common quartz grains, rounded.
Madison 4755
4755-4760  Same as above.
4760-4775  Shale, dark gray to variegated, little limestone, pale yellowish brown (10YR6/2), medium crystalline, angular fragments.
4775-4785  Limestone, light gray to medium gray, fine crystalline, dense to oolitic, common shale variegated as above, cavings (?) 4785-4795  Limestone as above, slightly oil-stained, no cut, little shale dark gray, splintery.
4795-4815  Limestone as above, slight cut, common ostracods.
4815-4840  Cavings.
4840-4865  Limestone, medium light gray, fine crystalline, dense to pseudo-oolitic, common shale, variegated, probably cavings (?)
4865-4880  Limestone, medium light gray to yellowish gray (5Y7/2), fine to medium crystalline, dense to oolitic, vuggy.
4880-4900  Limestone, yellowish gray (5Y7/2), fine crystalline, pinpoint porosity, calcitic, slightly oil-stained, no cut, common ostracods.
4900-4920  Cavings.
4920-4950  Limestone as above, common anhydrite, white to light bluish gray (5B7/1), grainy, little shale, greenish gray (5GY6/1), soft, platy.
4950-4995  Same as above, abundant cavings.
4995-5015  Limestone, pale yellowish brown (10YR6/2), fine grained, pinpoint porosity, slightly oil-stained, shows banding, no cut, common anhydrite, white.
5015-5050  Limestone as above, abundant anhydrite, white to light bluish gray (5B7/1), dense to grainy, common cavings.
5050-5055  Circulation.
5055-5080  Limestone, yellowish gray (5Y7/2) to pale yellowish brown (10YR6/2), medium crystalline, pinpoint porosity to dense, calcitic, common anhydrite light bluish gray (5B7/1), dense.
5080-5090  Cavings.
5090-5100  Anhydrite as above, common limestone as above.
5100  Circulation.
5100-5120  Limestone, yellowish gray (5Y7/2) to pale yellowish brown (10YR6/2), fine to medium, crystalline, slightly oil-stained, banded, no cut, common anhydrite, greenish gray (5G6/1), dense slightly calcareous.
5120  Cavings.
5150-5165  Limestone, pale yellowish brown (10YR6/2), fine crystalline, calcitic, common anhydrite, common cavings.
5165  Circulation.
5165-5190  Limestone, pale yellowish brown (10YR6/2), fine crystalline, common anhydrite.
5190  Circulation.
5190-5220  Limestone, light brownish gray (5YR6/1) to pale yellowish brown (10YR6/2), fine crystalline, calcitic to dense, pseudo-oolitic, common anhydrite.
5220  Circulation.
5220-5300  Limestone, pale yellowish brown (10YR6/2), fine to medium crystalline, vuggy to dense, slightly oil-stained, no cut.
5300-5350  Limestone as above, common anhydrite, greenish gray (5G6/1), dense, common cavings.
5350  Circulation.
5350  Total depth.