



00248380

30-8N-54W

DATA SHEET AND DISCUSSION

LOCATION: NW SE (1982 feet north of south line and 1962 feet west of east line),
Section 36, Township 8 North, Range 54 West, Logan County, Colorado.

COMMENCED: April 25, 1964

COMPLETED: April 30, 1964

CONTRACTOR: Exeter Drilling Company, Denver, Colorado

CASING: Set 8 joints, 135 feet, of 8-5/8-inch, 20-pound, 8-round thread casing
146 feet with 110 sacks of cement, 3% HA5 and 2% Gelatin.

MEASUREMENTS: All measurements are taken from the Kelly bushing approximately 9 feet
above the ground elevation. A 4-foot downward correction was made at
5000' (5000 = 5004). Another 2-foot downward correction at T.D. was
necessary to match drilled depths to log.

ELEVATION: 4210.6 ground (Osborne); 4220 Kelly bushing

<u>Formation</u>	<u>Sample Tops</u>	<u>Log Tops</u>	<u>Datums</u>
Niobrara	4070	4075	145
Timpas	4404	4400	-180
Carlile	4463	4448	-228
Greenhorn	4637	4642	-422
Mowry	4803	4807	-587
Brown Lime	4807	4811	-591
"D" Sand	4892	4903	-783
"J" Sand	4992	4999	-779
Total Depth		5132	-912

DISCUSSION: The "D" Sand, 4893 (-783), was 20 feet lower than expected from
subsurface work. There were two well-developed sand benches 4902 to 12,
which calculated 19% porosity and 68% water saturation and 4920 to 28,
which calculated 17% porosity and 74% water saturation. There were no
shows in the samples, so this sand was considered water-bearing.

The "J" Sand, 4999 (-779), was drilled to 5006 and samples circulated
before coring from 5006 to 56. The 20-minute and 40-minute circulated
samples had good shows in tight sand with the show dropping out in the
60-minute sample. Drill-Stem-Test #1, 4998 to 5002, tested this show, and
the sand was too tight to give up fluid. The core was primarily thinly
laminated and reworked sand with a 2-inch show at 5030 and a 6-inch show
at 5037, which was not worth testing. There were no shows below the
core, and the sand calculated at 23% porosity and 76% water saturation;
so further testing was not warranted.

DISCUSSION (Continued):

The well was plugged April 30, 1964, by filling it with heavy mud from the total depth to the bottom of the surface pipe (5132-145). A 10-sack cement plug was set in the bottom 30 feet of the surface pipe, 145-115, then the casing was filled with heavy mud to within 20 feet of the top. A 7-sack cement plug was set in the top 20 feet of the surface pipe (32-12).

All measurements are taken from the Kelly bushing which was approximately nine feet above the ground.

Submitted by



George D. Volk, Petroleum Geologist

SAMPLE DESCRIPTION

4000-10	shale dark gray
20	ditto
30	ditto
40	ditto
50	ditto
60	ditto
70	ditto
NIOBRARA	4070
80	ditto
90	ditto
4100	ditto trace shale gray mottled white calcareous
4100-10	shale gray to dark gray mottled white to brown calc. and shale dark gray
20	ditto and ditto
30	ditto little ditto
40	samp
50	
60	
70	
80	
90	
4200	
4200-10	
20	
30	
40	
50	
60	
70	
80	
90	
4300	
4300-10	
20	
30	
40	
50	
60	
70	
80	
90	
4400	
TIMPAS	4404
4400-10	
20	trace limestone white to buff dense
30	little ditto
40	limestone white to buff dense and shale dark gray; little calc. shale as above
50	ditto and ditto little ditto
60	ditto and ditto little ditto
CARLILE	4463 (?) Note: limestone weak mineral fluor.; no cut or change with ether
70	shale dark gray; little limestone as above
80	ditto little ditto
90	ditto little ditto trace siltstone gray
4500	ditto little ditto trace ditto

SAMPLE DESCRIPTION (Continued)

	shale dark gray;	little limestone white to buff dense;	trace siltstone gray
4500-10	ditto	little ditto	trace ditto
20	ditto	little ditto	trace ditto
30	ditto	little ditto	trace ditto
40	ditto	trace ditto	trace ditto
50	ditto	trace ditto	trace ditto
60	ditto	little siltstone gray	
70	ditto	little ditto	
80	ditto	little ditto	
90	ditto	little ditto	
4600	ditto	little ditto	
4600-10	shale dark gray;	trace siltstone gray	
20	ditto	trace ditto	
30	ditto	trace ditto	
GREENHORN		4637	
40	ditto	trace ditto	
50	ditto	trace ditto	
60	ditto	trace ditto	little limestone buff to brown chrystalline
70	ditto	little ditto	little ditto
80	ditto	trace ditto	little ditto
90	ditto	trace ditto	trace ditto
4700	ditto	trace ditto	trace ditto
4700-10	ditto	trace ditto	
20	ditto	trace ditto	
30	ditto		
40	ditto		
50	ditto	trace siltstone gray;	trace limestone buff to brown chrystalline
60	ditto	trace ditto	trace ditto
70	ditto	trace ditto	trace ditto
80	ditto	trace ditto	
90	ditto		
4800	ditto		
4800-10	ditto		
MOWRY		4803	
BROWN LIME		4807	
20	ditto		
30	ditto	trace limestone buff to brown chrystalline	
40	ditto	trace ditto	
50	ditto		
55	ditto		
60	ditto		
65	ditto		
70	ditto	trace buff chrystalline limestone	
75	ditto		
4875-80	shale dark gray	trace chert gray	
85	ditto		
90	ditto		
"D" SAND		4892	
95	ditto		
4900	ditto	trace sand gray fine partly silty	no show
4900-05	ditto	little sand gray fine porous	trace gas acid test weak cut
10	ditto	little ditto	no show
15	ditto	little ditto	partly silty no show
20	ditto	little ditto	" " " "
25	ditto	little ditto	" " " "

SAMPLE DESCRIPTION (Continued)

	shale dark gray; little sand gray fine porous partly silty; no show
4925-30	ditto little ditto no show
35	ditto little ditto " "
40	ditto trace ditto no show
45	ditto trace ditto trace chert brown
50	ditto trace ditto trace siltstone gray
55	ditto trace siltstone gray; trace chert brown
60	ditto trace chert borwn
65	ditto trace ditto
70	ditto trace ditto
75	ditto trace ditto
80	ditto trace siltstone dark gray
85	ditto trace ditto trace chert brown
90	ditto little ditto
"J" SAND	4992
95	ditto little ditto
5000	ditto little ditto; trace sand gray fine silty tight partly reworked no show
5000 circ.	
20	ditto and sand gray fine partly silty mostly fluor.
5000 cir.	
40	ditto and ditto
5000 circ.	
60	ditto and ditto 5% fluor.
4' correction	5000 = 5004
5004-54	SEE CORE DESCRIPTION
5050-55	shale dark gray little sand gray fine silty tight prtly reworked; few clust. fluor.
60	ditto trace ditto " " "
65	ditto trace ditto one " "
70	ditto trace sand gray fine partly silty porous; no show
75	ditto trace ditto 1 cluster fluor.; trace sand light brown cherty
80	ditto trace ditto; no show trace ditto
85	ditto trace ditto trace brown chert
90	ditto trace ditto
95	ditto little ditto; no show
5100	ditto little ditto; no show
5100-05	ditto little ditto; no show
10	ditto and sand gray fine silty tight; no show
15	ditto and ditto
20	ditto and ditto
25	ditto and ditto
30	ditto and ditto some dark gray reworked
Circ. 5130	
30	ditto and sand dark gray fine silty tight reworked; no show
Circ. 5130	
60	ditto and ditto

CORE DESCRIPTION

Core #1 (5006 - 56 corrected. Full Recovery.)

- 4' 6" sand gray fine silty tight; no show; reworked with shale dark gray.
6' 6" sand gray fine silty tight vertically fractured streaks reworked or
thinly laminated with shale dark gray.
21' reworked and thinly laminated sand gray fine silty tight and shale
dark gray; 2-inch show at 5030 and 6-inch show at 5037.
10' shale dark gray hard.
8' 6- to 12-inch beds of sand gray fine partly silty; no shows; and shale
dark gray hard.

DRILL-STEM-TEST RECORD

Drill-Stem Test #1 (4998 to 5002)

The test was open 15 minutes, shut in 30 minutes; open 30 minutes, shut in 30 minutes. The test opened with a weak blow for 10 minutes then died. After the initial shut-in pressure was taken, the tool was opened for 30 minutes with no blow; so it was shut in for the final shut-in pressure. The test recovered 15 feet 9 inches of mud, slightly gas cut, with a trace of rainbow of oil.

Initial Flow Pressure	7	lbs. per sq. inch
Final Flow Pressure	7	do
Initial Flow Pressure	7	do
Final Flow Pressure	15	do
Initial Shut-in Pressure	false	do
Final Shut-in Pressure	820 building	do
Initial Hydrostatic Pressure	2704	do
Final Hydrostatic Pressure	2661	do
Bleed off	1672	do
Bottom-hole temperature	146°	



DRILLING-TIME RECORD

<u>From - To</u>	<u>Minutes per 5-foot interval:</u>
4000-50	2-2-2-2-2-2-2-2-2-2
4050-4100	2-3-3-2-2-3-3-3-4-3
4100-50	3-3-3-3-3-5-3-2-2-2
4150-4200	2-2-2-2-2-2-2-2-2-2
4200-50	2-2-2-2-2-2-2-2-2-2
4250-4300	2-2-2-2-2-2-2-2-2-2
4300-50	3-3-3-3-3-3-3-3-3-3
4350-4400	3-3-3-4-3-3-3-3-3-3
4400-50	3-5-5-6-6-5-5-5-5-5
4450-4500	5-5-6-5-7-7-7-8-7-7*
4550-4600	4-4-4-4-4-4-4-4-5-5
4600-50	4-4-4-4-5-7-7-9-8-5
4650-4700	6-7-6-6-6-5-6-7-7-6
4700-50	6-5-6-7-6-6-6-6-6-8
4750-4800	7-7-6-5-5-8-7-7-6-5
4800-50	5-9-8-8-7-5-8-8-8-8

Minutes per 1-foot interval:

4850-60	1-1-1-1-1-1-1-1-1-1	
4860-70	1-2-2-2-1-2-1-2-1-2	
4870-80	1-1-2-1-1-1-2-1-2-1	
4880-90	1-1-1-1-1-1-1-1-1-1	
4890-4900	1-1-2-2-2-2-5-5-3-4	
4900-10	7-6-8-8-7-7-4-2-2-2	
4910-20	3-7-2-4-5-4-5-7-5-3	
4920-30	4-4-4-5-5-5-3-4-4-4	
4930-40	4-3-4-3-6-4-5-5-5-4	
4940-50	5-5-3-6-2-3-3-1-1-1	
4950-60	2-2-1-1-1-1-2-1-1-2-1	
4960-70	2-1-2-2-1-2-3-3-2-2	
4970-80	2-4-4-3-4-5-5-4-5-4	
4980-90	4-4-4-4-4-8-6-7-7-5	
4990-5000	4-4-3-2-2-2-6-5-3-3*	
5000-10	34-21-16-16-10-16-18-10-10	Core 1
5010-20	12-10-11-13-11-10-14-18-13-12	Core 1
5020-30	13-15-12-13-14-11-11-11-12-13	Core 1
5030-40	13-16-17-13-16-27-20-18-17-23	Core 1
5040-50	20-8-20-14-3-3-14-16-24-45*	Core 1
	4' correction 5050 - 5054	

5054-60	4-7-5-5-3-3
5060-70	4-7-6-4-4-4-4-6-13-11
5070-80	10-6-7-7-6-5-7-7-8-5
5080-90	5-6-6-6-6-7-5-5-4-1
5090-5100	1-1-1-1-2-2-3-2-1-1
5100-10	3-3-2-1-1-1-1-2-1-1
5100-20	1-1-1-2-3-2-3-2-3-3
5120-30	3-2-2-2-2-2-2-2-2-2

* Trip



BIT RECORD

No.	Make	Size	Type	From - To	Footage Drilled	Hours Run	Condition
1	Hughes	7-7/8	OSC-3AJ	150 3446	3296	19	Locked
2	"	"	OSC-3	3446 4496	1050	12	Locked
3	Security	"	S-3	4496 5000	504	17	WO Pulled to core
*	Diamond	6-5/8	Core	5000 5050	50	14	Not hurt
4	CP	7-7/8	EMIV	5000 5130	130	8	Dull

MUD RECORD

Date	Depth	Wt.	Vis	Vis cps	Pl Vis.	Yield pt	Gel. Ini.	Str. Final	pH	Water loss cc	wall cake 32ds	Cl	Co.
4/26/64	1900												
4/27/64	4497	9.8	46	22.5	17	9	2	6	8.6	7.8	2	Tr	nil
4/28/64	5035	10	65	37	25	25	9	16	8.8	4.3	2	nil	nil
4/30/64	5081	10	55	35	28	17	0	8	8.5	4.8	2	240.	nil

Tester: Magcohar