

## DATA SHEET AND DISCUSSION

**LOCATION:** NW SW (1973 feet North of South line and 659 feet East of West line), Section 13, Township 2 North, Range 57 West, Morgan County, Colorado.

**COMMENCED:** March 22, 1960.

**COMPLETED:** March 27, 1960

**CONTRACTOR:** Exeter Drilling Company, Denver, Colorado

**CASING:** Set 6 joints, 374 feet of 8 5/8 inch, 24 pound, 8 round thread new casing at 185 feet with 150 sacks of cement, 2% Calcium Chloride, 4% Gel.

**MEASUREMENTS:** All measurements are taken from the kelly bushing approximately 8 feet above the ground.

**ELEVATION:** 4491 Ground (Osborne) 4499 Kelly Bushing

<u>Formation</u>	<u>Sample Tops</u>	<u>Log Tops</u>	<u>Datums</u>
Niobrara	4627	4622	- 123
Timpas	4953	4954	- 455
Carlile	5004	5000	- 501
Greenhorn	5065	5067	- 568
Mowry	5333	5319	- 820
Brown Lime	5335	5322	- 823
"D" Sand	5411	5411	- 912
"J" Siltstone	5458	5461	- 962
"J" Sand	5479	5478	- 979
Total depth	5534	5535	-1036

**DISCUSSION:** The "D" Sand, 5411 (-912), was drilled. The top bench was hard tight sand, siltstone and shale. There was a show noted in the 45 minute circulated sample and the 5430 sample which came from 5422 to 25 with no shows noted below. The zone 5428 to 30 was water with no show in the samples. The log and samples were carefully studied and it was decided the oil zone was too thin and water too close to warrant a drill stem test, especially with a maximum of 3 feet between the oil show and water to set a packer. Also the log indicated a transition from oil to water, and water with a small percentage of oil is all that could be expected; an opinion verified by the lack of a gas indication in the sample check.

The "J" Sand, 5478 (-979), was drilled. The samples indicated a soft porous unconsolidated sand becoming silty and some reworking with depth, with no shows noted in the samples or indicated on the log.



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# SAMPLE LOG

4500-10	Shale dark gray
20	Ditto
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto
4600	Ditto
4600-10	Ditto
20	Ditto
4627	<u>Niobrara</u>
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto
4700	Shale gray to dark gray mottled white to brown calcareous and shale dark gray
4700-10	Ditto and ditto
20	Ditto; little ditto
30	Same
40	Same
50	Same
60	Same
70	Same
80	Same
90	Same
4800	Same
4800-10	Same
20	Same
30	Same
40	Same
50	Same
60	Same
70	Same
80	Same
90	Same
4900	Same
4900-10	Same
20	Same; little limestone gray shaley dense
30	Same; trace ditto
40	Same; trace ditto
50	Same
4953	<u>Timpas</u>
60	Same
70	Same



4970-80 Limestone white to buff dense and shale dark gray; little calcareous  
 shale as before  
 90 Ditto; ditto; little ditto  
 5000 Ditto; ditto; little ditto  
 5000-10 Ditto and ditto; trace ditto  
 5004 Carlile  
 20 Ditto and ditto; trace ditto  
 30 Ditto and ditto  
 40 Shale dark gray and limestone white dense  
 50 Ditto; little ditto  
 60 Ditto; little ditto  
 5065 Greenhorn  
 70 Ditto; trace ditto  
 80 Ditto; trace ditto  
 90 Ditto; trace ditto; trace siltstone gray  
 5100 Ditto; trace ditto; trace ditto  
 5100-10 Shale dark gray; trace siltstone gray  
 20 Ditto; trace ditto  
 30 Ditto; trace ditto  
 40 Ditto; little ditto  
 50 Ditto; little ditto  
 60 Ditto; little ditto  
 70 Ditto; trace ditto  
 80 Ditto; slight trace ditto  
 90 Ditto; trace ditto  
 5200 Ditto  
 5200-10 Ditto  
 20 Ditto  
 30 Ditto  
 40 Ditto  
 50 Ditto  
 60 Ditto  
 70 Ditto; trace siltstone gray  
 80 Ditto; trace ditto; trace limestone buff crystalline  
 90 Ditto; trace ditto; trace ditto  
 5300 Ditto; trace ditto; trace ditto  
 5300-10 Ditto  
 20 Ditto  
 30 Ditto  
 5333 Mary  
 5335 Brown limestone  
 40 Ditto  
 50 Ditto  
 60 Ditto  
 70 Ditto; trace siltstone gray  
 80 Ditto; trace ditto  
 90 Ditto; trace ditto  
 5400 Ditto  
 5400-05 Shale dark gray  
 10 Ditto  
 5411(-912) "D" Sand





## Sample Log (Continued)

3

5413 Circ. 15  
     Min. Shale dark gray; trace sand gray fine hard tight, no show  
 5413 Circ. 25  
     Min. Ditto; little ditto, no show  
 5413-15 Ditto; little ditto; 1 cluster questionable fluorescence; trace siltstone gray  
 5415-20 Ditto; trace ditto; no show; trace ditto  
 5420-25 Ditto; trace ditto; no show; trace ditto  
 5425 Circ. 15  
     Min. Ditto; trace ditto; no show; trace ditto  
 5425 Circ. 30  
     Min. Ditto; trace ditto; 2 clusters weak fluorescence; trace chert brown  
 5425 Circ. 35  
     Min. Ditto; little ditto; 60% fluorescence; trace chert brown  
 5425-30 Ditto; little ditto; 40% fluorescence  
     35 Ditto; little ditto; 1 cluster fluorescence; trace chert brown  
     40 Ditto; trace ditto, no show  
     45 Ditto; trace ditto, no show  
     50 Ditto; trace ditto, no show; trace chert brown  
     55 Ditto; trace ditto, no show  
 5458 "J" Siltstone  
     60 Ditto  
     65 Ditto  
     70 Ditto; trace siltstone gray  
     75 Ditto; trace ditto  
 5479 "J" Sand  
     80 Ditto  
     85 Ditto; trace sand gray fine partly silty, no show; trace unconsolidated  
     90 Ditto; trace ditto; trace siltstone gray  
     95 Ditto; little ditto, no show  
 5500 Ditto; trace ditto; no show; some unconsolidated  
 5500-05 Ditto; trace ditto, no show; some unconsolidated, some reworked  
     10 Ditto; trace ditto, no show; some unconsolidated, some reworked  
     15 No sample  
     20 No sample  
     25 No sample  
     30 No sample  
 5534 Circ. 15  
     Min. Shale dark gray; little sand gray fine silty tight, no show  
 5534 Circ. 30  
     Min. Ditto; little ditto  
 5534 Circ. 45  
     Min. Ditto; trace ditto

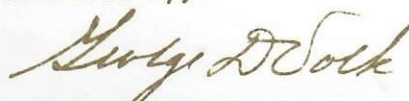


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The well was plugged March 27, 1960 by filling it with heavy mud from the total depth to the bottom of the surface pipe (5535 - 185). A 10 sack cement plug was set in the bottom 30 feet of the surface pipe 185 -155, then the casing was filled with 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 (31 to 11).

All measurements are taken from the Kelly Bushing which was approximately 8 feet above the ground.

Submitted by,



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Petroleum Geologist

GDV:sh



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# DRILLING TIME RECORD

<u>From - To:</u>	<u>Minutes per 5 foot intervals</u>	<u>Remarks</u>
4500-50	2-2-2-2-2-2-2-2-2-2	
4550-4600	2-2-2-2-2-2-2-2-2-2	
4600-50	2-2-2-2-3-4-4-4-3-3	
4650-4700	3-3-3-3-4-4-4-4-3	
4700-50	3-4-3-4-4-4-4-4-5-5	
4750-4800	4-4-4-4-4-4-4-4-4-4	
4800-50	3-3-4-4-4-4-4-4-5-5	
4850-4900	4-5-5-4-5-4-5-5-5-4	
4900-50	5-4-5-5-5-5-5-5-6-7	
4950-5000	7-9-8-8-8-8-8-8-8-9	
5000-50	7-8-8-7-8-7-7-8-8-9	
5050-5100	8-9-7-10*-9-10-9-8-9-9	
5100-50	8-8-7-8-7-9-8-10-7-8	
5150-5200	8-7-7-8-8-6-6-6-10-9	
5200-50	6-8-7-8-7-7-7-7-10	
5250-5300	8-7-8-9-9-9-8-8-8-8	
5300-50	7-8-7-8-9-8-5-10-9-7	
5350-5400	7-7-7-7-7-8-8-8-7-7	

## Minutes per 1 foot intervals

5400-40	2-1-2-1-2-1-1-2-1-2
5410-20	2-4-5-5-4-3-4-5-2
5420-30	2-3-2-2-2-4-4-5-2-2
5430-40	5-5-8-7-4-5-4-7-9-7
5440-50	5-5-4-4-3-3-2-2-2-3
5450-60	2-4-2-3-3-3-3-4-6-8
5460-70	6-6-8-11-11-12-13-9-11-11
5470-80	7-9-8-9-9-11-7-9-5-3
5480-90	4-3-16-16-17-19-5-5-4-5
5490-5500	4-4-3-3-4-4-4-5-5-4
5500-10	5-3-3-4-5-5-5-7-5-6
5510-20	3-9-7-11-12-12-17-14-12-12
5520-30	19-12-17-15-10-13-8-9-4-2
5530-34	4-9-8-16*

( \* Trip)  
( \*\* Circulated Samples)



000510



# BIT RECORD

<u>No.</u>	<u>Make</u>	<u>Size</u>	<u>Type</u>	<u>From - To</u>	<u>Footage Drilled</u>	<u>Hours Run</u>	<u>Condition</u>
1	CP	7 7/8	ES1CJ	184 - 2810	2626	11	Dull
2	Security	"	S-3J	2810 - 4219	1409	12	Dull
3	Hughes	"	OSC-3	4219 - 5066	847	11	Dull
4	CP	"	ES1C	5066 - 5413	347	10	WO
5	Security	"	M4	5413 - 5486	73	8	WO
6	Hughes	"	OWV	5486 @ 5534	48	6	WO

# MUD RECORD

<u>Date</u>	<u>Depth</u>	<u>Wt</u>	<u>Vis</u>	<u>St. Vis</u>	<u>Gen. Strength Initial</u>	<u>Strength Final</u>	<u>pH</u>	<u>Water Loss in cc</u>	<u>Wall Cake in 32nds</u>	<u>Tester</u>
3-24-60	4040									Magcobar
3-25-60	5075	10	48	19	4	15	8.5	5.8	2	"
3-26-60	5486	10	87	25	6	28	8	6.4	2	"

