



## DATA SHEET AND DISCUSSION

LOCATION: NW SW (1980 feet North of South line and 650 feet East of West line), Section 13, Township 2 North, Range 55 West, Morgan County, Colorado.

COMMENCED: April 18, 1961

COMPLETED: April 22, 1961

CONTRACTOR: Exeter Drilling Company, Denver, Colorado

CASING: Set 4 joints, 118 feet of 8 5/8 inch, 24 pound- 8 round thread new casing at 130 feet with 85 sacks of cement, 2% Calcium Chloride, 1% Cel.

MEASUREMENTS: All measurements are taken from the kelly bushing approximately 9 feet above the ground elevation.

ELEVATION: 4542 Ground (Osborne) 4551 Kelly Bushing

<u>Formation</u>	<u>Sample Tops</u>	<u>Log Tops</u>	<u>Bottoms</u>
Wibbrera	4175	4163	✓ 388
Timpas	4198	4180	✓ 31
Carlile	4514	4573	- 23
Greenhorn	4656	4662	- 111
Hoary	4895	4897	- 346
Brown Line	4903	4903	- 353
"D" Sand	4982	4982	- 431
"J" Sand	5056	5056	- 505
Total Depth	5160	5160	- 609

DISCUSSION: The "D" Sand, 4982 (-431), was 30 feet lower than expected from subsurface work, so the sand was drilled and the samples checked for shows. A minor show was noted in the 4990 sample but it was too weak with no indication on the log to warrant testing. The sands for the most part were silty and tight.

The "J" Sand, 5056 (-505), was drilled and the first bench circulated to the surface at 5065 and checked for shows. There were no shows noted in this bench or in the lower benches. The normal producing sand benches in the top 40 feet of the "J" Sand were shaled out in this well and the massive sand had good sand in the top becoming siltier with depth with no shows.

The well was plugged April 22, 1961 by filling it with heavy mud from the total depth to the bottom of the surface pipe (5160 - 130). A 10 sack cement plug was set in the bottom 30 feet of the surface pipe 130-100, then the casing was filled with heavy mud to within 20

Discussion (Continued)

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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 9 feet above the ground.

Submitted by,

*George D. Volk*

GEORGE D. VOLK  
Petroleum Geologist

GDV:sh

# SAMPLE DESCRIPTION

4000-10	Shale dark gray
20	Ditto
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto
4100	Ditto
4100-10	Ditto
20	Ditto
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
4175	<u>Niobrara</u>
80	Ditto
90	Ditto
4200	Ditto
4200-10	Ditto; trace shale dark gray mottled buff calcareous
20	Ditto; trace ditto
30	Ditto; little ditto
40	Ditto; little ditto
50	Ditto; little ditto
60	Shale gray to dark gray mottled white brown calcareous and shale dark gray
70	Ditto and ditto
80	Ditto; little ditto
90	Same
4300	Ditto
4300-10	Same
20	Same
30	Same
40	Same
50	Same
60	Same
70	Same
80	Same
90	Same
4400	Same
4400-10	Same
20	Same
30	Same
40	Same
50	Same
60	Same
70	Same
80	Same
90	Same; more shale
4500	Same; more shale
4495	<u>Timpan</u>
4500-10	Same; more shale
20	Same; more shale; trace limestone gray shaley dense
30	Same; more shale



4530-40	Shale dark gray; limestone white to buff dense; little calcareous shale as above
4544	<u>Carlile</u>
50	Same
60	Same
70	Same; trace siltstone gray
80	Same
90	Same
4500	Same
4600-10	Same
20	Same
30	Same
40	Same
50	Same
4656	<u>Greenhorn</u>
60	Same trace siltstone gray
70	Same
80	Shale dark gray, partly calcareous; trace limestone white to buff dense; trace siltstone gray
90	Ditto, partly calcareous; trace ditto; trace ditto
4700	Ditto, partly calcareous; trace ditto; little ditto
4700-10	Ditto, partly calcareous; trace ditto; trace ditto
20	Ditto, partly calcareous; trace ditto; little ditto
30	Ditto, partly calcareous; trace ditto; little ditto; trace limestone gray to buff crystalline
40	Ditto, partly calcareous; trace ditto; little ditto
50	Ditto, partly calcareous; trace ditto; trace ditto
60	Ditto; trace siltstone gray
70	Ditto; trace ditto
80	Ditto; trace ditto
90	Ditto; trace ditto; trace limestone buff crystalline
4800	Ditto; trace ditto; trace ditto
4800-10	Ditto; trace ditto; trace ditto
20	Ditto
30	Ditto
40	Ditto; trace ditto
50	Ditto; trace ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto
4895	<u>Mowry</u>
4900	Ditto
4903	<u>Brown Line</u>
4900-10	Shale dark gray
20	Ditto
30	Ditto
40	Ditto; trace limestone brown crystalline
50	Ditto
55	Ditto
60	Ditto
65	Ditto; trace siltstone gray
70	Ditto; trace ditto
75	Ditto
80	Ditto
4982	<u>"P" Sand</u>
85	Ditto

## Sample Description (Continued)

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4985-90	Shale dark gray
95	Ditto; little sand gray fine partly silty, 3 clusters weak pin point fluorescence; trace siltstone gray
5000	Ditto; little ditto, no show no ether cut; trace siltstone gray
5000-02½	Ditto; little sand gray fine hard tight, no show; trace ditto
02½-05	Ditto; little ditto; trace ditto
05-7½	Ditto; trace ditto; trace ditto
7½-10	Ditto; trace ditto; trace ditto
10-15	Ditto; little sand gray fine silty tight, no show; trace ditto; trace chert brown
15-17½	Ditto; little ditto; trace ditto; trace ditto
17½-20	Ditto; little ditto; little ditto; trace ditto
20-22½	Ditto; trace ditto; little ditto; trace ditto
22½-25	Ditto; trace ditto; little ditto; trace ditto
25-30	Ditto; trace ditto; trace ditto
30-35	Ditto; trace siltstone gray
40	Ditto; trace ditto
45	Ditto; trace ditto
50	Ditto; trace ditto
55	Ditto
5055 (-505)	"J" Sand
60	Ditto; trace ditto
65	Ditto; trace ditto; little sand gray fine silty tight, partly reworked, no show
5065 Circ. 30 Min.	Ditto; trace ditto; little ditto
5065-70	Ditto; little sand gray fine partly silty tight, no show; trace siltstone gray
75	Ditto; little ditto; trace ditto
80	Ditto; little ditto; trace ditto
85	Ditto; little ditto; trace ditto
90	Ditto; trace ditto; trace ditto
95	Ditto; trace ditto; trace ditto
5100	Ditto; trace ditto; trace ditto
5100-05	Ditto; trace ditto; trace ditto
10	Ditto; trace ditto; trace ditto
15	Ditto; trace ditto; trace ditto
20	Ditto; trace ditto; trace ditto
25	Ditto; trace ditto, some unconsolidated; trace ditto
30	Ditto; trace ditto, some unconsolidated; trace ditto
35	Ditto; trace ditto, some unconsolidated; trace ditto
40	Ditto; little ditto, some unconsolidated; trace ditto
45	Ditto and sand gray fine silty tight, probably reworked, no show
50	Ditto and ditto
55	Ditto and ditto
60	Ditto and ditto
5160 Circ. 30 Min.	Ditto; little ditto
5160 Circ. 60 Min.	Ditto; little ditto



**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	Hughes	7 7/8	OSC3AJ	130 - 3246	3116	14	WO
2	Hughes	"	OSC3AJ	3246 - 4432	1186	12	Locked
3	"	"	OSC3A	4432 - 4895	463	11	Dull
4	"	"	OSC10	4895 - 5079	184	11	WO
5	"	"	ONV	5079 - 5160	61	4	Dull

**MUD RECORD**

<u>Date</u>	<u>Depth</u>	<u>Wt</u>	<u>Vis</u>	<u>St Vis</u>	<u>FI Vis</u>	<u>Gel. Strength</u>		<u>pH</u>	<u>Water Loss in cc</u>	<u>Wall Cake in 32nds</u>
4/21/61	4292	9.9	41	15	10	2	11	9.5	4.6	2
4/21/61	5002	10	80	38	—	2	10	8	5.2	2

Tester was Hagesbar