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GEOLOGICAL REPORT

W. A. Sidwell, Jr. and N. M. Tobison #2 Drum
NE 1/4 SW 1/4 Section 6, T. 2 N., R. 53 W.
Washington County, Colorado

RECEIVED

SEP 30 1970

COLO. OIL & GAS CONNS. COMM.

SCANNED

Miscellaneous Data

Commenced	September 12, 1970
Completed	September 19, 1970
Status	D & A
Surface Casing	8-5/8" @ 129' KB with 70 sx.
Elevation	4511 Gr., 4517 KB
Cores	None
Drill Stem Tests	"D" and "J" sands
Logs	Dresser Atlas: I-ES and Minilog
Contractor	Allison Drilling Co.

Formation Tops - Electric Log

Niobrara	3910	
Ft. Hays	4243	
Carlile	4296	
Bentonite	4635	
"D" Sand	4730	(-213)
"J" Sand	4806	(-289)
Total Depth	4895	(4900 Driller)

Bit Record

No.	Size	Make	Type	From	To
1	7-7/8	Smith	DT	129	3191
2	7-7/8	Security	S3	3191	4755
3	7-7/8	HTC	CIC	4755	4895

Drill Stem Tests

DST #1 - #3	Failed to reach bottom.
DST #4	4741-4759. Open 1 hr., strong steady blow. Recovered 3100' gas in drill pipe, 100' oil-cut mud, 360' water. SP: 70 - 162#; 30-min. SI: 784#; Hyd. 2624-2610#. Resist. of water 10 ohm @ 94° (equivalent to 375 ppm).
DST #5	4809-4822. Packers failed after 3 min. open. Recovered 80' heavily water-cut mud (wt. 9.1, vis. 55). 250' drilling mud.
DST #6	6816-4820. Packers failed.

Formation Description

4700 - 4730	Shale, black, fissile.
4730 - 4744	Sandstone, gray, fine-grained, friable, slightly silty, poor porosity, no shows.
4744 - 4748	Shale, black.
4748 - 4751	Sandstone, gray, tight.
4751 - 4752	Shale, black.
4752 - 4754	Sandstone, gray, fine-grained, silty, tight, no shows.
4754 - 4759	Sandstone, light gray and tan, fine-grained, angular, friable, patchy light stain and fluorescence, permeable.
4759 - 4771	Sandstone, light gray, fine-grained, silty, tight, no show, with tan and brown siltstone.
4771 - 4806	Shale, black, locally silty.
4806 - 4817	Sandstone, gray, fine- and medium-grained, clay-filled, glauconitic, tight, no shows, with siltstone stringers.

4817 - 4824	Sandstone, gray, fine-grained, generally clean with some clay-filling, poor to fair permeability; minor amount of sand has light fluorescence.
4824 - 4829	Siltstone, shaly.
4829 - 4834	Sandstone, gray, silty.
4834 - 4848	Shale, black, silty.
4848 - 4857	Sandstone, gray, fine-grained, indicated permeability, no shows.
4857 - 4868	Siltstone and shale, laminated.
4868 - T.D.	Sandstone, gray, medium-grained, wet, with occasional silty stringers.

Remarks

This well was an east offset to our #1 Drum, which produces from the first porosity in the "D" sand, some 12' in thickness. Although the #2 Drum was 1' high on the top of the "D" to the producer, the indicated pay zone had thinned to 6' and did not have an encouraging response on the electric logs. As well as thinning, the zone appeared to be tighter, and sample shows were poor. Repeated attempts were made to reach bottom with the testing tool, and a test of this zone was finally achieved on the fourth try. Recovery was gas in the drill pipe and 100' of oil-cut mud with 360' of water, much of which is believed to be filtrate. The test indicated the zone to be non-commercial.

Indicated porosity and an encouraging electric log picture caused us to attempt further tests on a 6'-member in the "J-2" zone. The first test was open some 3 minutes before the packers failed. Recovery was 330' of drilling mud with the top portion heavily water cut. One further attempt was made to confirm the presence of water in the formation; however, packers failed immediately. Because of the indicated water found on the first test of this zone and the improbability of having a successful test with further attempts, the decision was made to abandon the hole.

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