

DRILL STEM TESTS

#1 TD 4478, pkr 4375; tool open 1 hr. at 5:43 A.M. Very slight blow for 7 minutes, then dying completely. Recovered 60' slightly oil & gas cut mud. FBHP 0; 20-min. SIBHP 125 psi not max. Hydro 2400 psi. Johnston tool with 5¹/₂" pkr., 1/2" bottom chokes and 1" top choke.

#2 TD 4586, pkr. 4476; tool open at 1:30 P.M. for 2¹/₄ hrs. Fair blow on opening, increasing to strong blow in 4 mins. Gas to surface in 6 mins. Flowed oil and gas cut mud in 52 mins. for 15 mins. Turned oil into tank @ 2:45 P.M. On one-hour test, well flowed 28 bbls. of 35.3° gravity oil (corrected), cut 1.8% water & 8.4% BS. FBHP 1000 psi max. in 30 mins. decreased to 650 psi at end of test. 25-min SIBHP 1025 psi max. Hydro 2400 psi.

DEVIATION TESTS

<u>Depth</u>	<u>Deviation in Degrees</u>
500	1/4
1000	3/4
1430	3/4
1700	1/4
2500	1
2700	1 1/4
2930	1 1/2
3110	7/8
3170	7/8
3390	3/4
3590	3/4
3800	1 1/8
3962	1 1/8
4200	1 7/8
4450	1 1/2

Introduction

The purpose of this study is to investigate the effects of various factors on the performance of a system. The study is divided into two main parts: a theoretical analysis and an experimental investigation. The theoretical part focuses on the development of a model that describes the relationship between the input variables and the output performance. The experimental part involves the design and execution of a series of tests to validate the model and to determine the range of conditions over which it is applicable. The results of the study are presented in the following sections, and the conclusions are drawn from the analysis of the data.

Methodology

Experimental Design

- 1. Selection of variables
- 2. Design of experiments
- 3. Data collection
- 4. Statistical analysis
- 5. Model development
- 6. Validation of the model
- 7. Sensitivity analysis
- 8. Conclusions

Results

- 1. Performance vs. Input A
- 2. Performance vs. Input B
- 3. Performance vs. Input C
- 4. Interaction effects
- 5. Model fit
- 6. Sensitivity analysis
- 7. Conclusions