

March 7, 1937

New Mexico Oil Conservation Commission
P. O. Box 871
Santa Fe, New Mexico

Re: Application for Dual Completion of Northwest
Production Corporation Well "N" 4-6, Located
in Section 6, T26N, R4W, Rio Arriba County,
New Mexico.

Attention: Mr. A. L. Porter

Gentlemen:

In accordance with Rule 112-C of the Commission Rules and Regulations, Northwest Production Corporation requests final approval for the dual completion of Well "N" 4-6 in the Mesaverde and Graneros-Dakota formations. Tentative approval of the plan for drilling and equipping the well was received from Mr. Emory C. Arnold on January 22, 1937. Approval from the United States Geological Survey was received January 17, 1937 on the Notice of Intention to Drill a dual Mesaverde - Graneros-Dakota well.

Following is a resume of the work performed on Well "N" 4-6 which is located 1880 feet from the North line and 1180 feet from the East line of Section 6, Township 26 North, Range 4 West, Rio Arriba County, New Mexico:

1. 7-5/8 inch intermediate casing was set at 4121.24 feet.
2. A 6-3/4 inch hole was drilled to 8375 feet and a 5 1/2 inch liner was cemented at total depth. Top of the liner was hung at 4021.86 feet with a Burns liner hanger.
3. A 4-3/4 inch hole was drilled below the 5 1/2 inch liner to 8392 feet; however, the open hole from 8375 to 8392 feet produced water and the well was plugged back to 8365 feet.
4. The 5 1/2 inch liner was perforated from 8200-8264 feet and the Dakota formation was fractured with water and sand.
5. A bridge plug was set at 8100 feet with one sack cement on top, the 5 1/2 inch liner was perforated from 8090-8122 feet and the Graneros formation was fractured with water and sand.
6. A bridge plug was set at 8000 feet with two sacks cement on top and the 5 1/2 inch liner was perforated from 7942-8120 feet. The lower

1. Introduction

The purpose of this study is to investigate the effects of the proposed system on the performance of the system.

The study is organized as follows. Section 2 describes the system architecture. Section 3 describes the experimental setup. Section 4 presents the results of the experiments. Section 5 discusses the conclusions.

The paper is organized as follows.

Section 2

The system architecture is shown in Figure 1. The system consists of a client and a server. The client is a personal computer. The server is a mainframe computer. The client sends requests to the server. The server processes the requests and returns the results to the client.

The system is designed to be flexible and scalable. It can handle a large number of requests and can be easily modified to meet changing requirements.

The system is implemented in C and runs on a Unix operating system.

The system is evaluated using a set of test cases. The test cases are designed to test the system's ability to handle different types of requests and to return the correct results.

The results of the experiments show that the system is able to handle a large number of requests and to return the correct results. The system is also flexible and scalable.

The system is a good example of a flexible and scalable system. It can be used in a variety of applications.

The system is a good example of a system that can be easily modified to meet changing requirements.

The system is a good example of a system that can be used in a variety of applications.

Mesaverde formation was fractured using water only.

7. The $5\frac{1}{2}$ inch liner was perforated from 5573-5606 feet, a bridge plug was set at 5626 feet and the upper Mesaverde was fractured using water only.
8. The bridge plugs at 5926 feet, 6000 feet and 6100 feet were drilled out and the well cleaned out to 6205 feet.
9. Two-inch NHE tubing was hung at 8302.73 feet, a production packer was set at 7306 feet and a tubing side-door choke at 6190 feet. The well was completed February 7, 1957.

The three-hour absolute open flow for the Mesaverde tubing-casing annulus completion was 2,305 Mcf per day taken on March 6, 1957, and for the Graneros-Dakota tubing completion was 4,446 Mcf per day taken on February 23, 1957.

Attached for your information is a diagrammatic sketch of the dual with pertinent data of the completion. Test data, including the Packer Leakage Test and a Packer Setting Affidavit are also attached.

El Paso Natural Gas Company, owner of mineral rights on offsetting acreage, was furnished a copy of the application for permission to dually complete "N" 4-6, and the signed registered receipt is attached for your information.

Should you desire additional information before a final order is issued approving the dual completion, please advise.

Very truly yours,

ORIGINAL SIGNED BY
W. R. JOHNSTON

W. R. Johnston, Manager
Production Operations

WRJ/RF/rt

In duplicate
Attachments

cc: New Mexico Oil Conservation Commission
Altec, New Mexico

United States Geological Survey
Farmington, New Mexico

1944-1945

1. The first part of the report is devoted to a general survey of the situation in the country.

2. The second part of the report is devoted to a detailed analysis of the economic situation in the country.

3. The third part of the report is devoted to a detailed analysis of the social situation in the country.

4. The fourth part of the report is devoted to a detailed analysis of the political situation in the country.

5. The fifth part of the report is devoted to a detailed analysis of the cultural situation in the country.

6. The sixth part of the report is devoted to a detailed analysis of the international situation in the country.

7. The seventh part of the report is devoted to a detailed analysis of the future prospects of the country.

8. The eighth part of the report is devoted to a detailed analysis of the conclusions of the report.

9. The ninth part of the report is devoted to a detailed analysis of the conclusions of the report.

10. The tenth part of the report is devoted to a detailed analysis of the conclusions of the report.

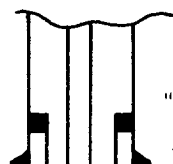
11. The eleventh part of the report is devoted to a detailed analysis of the conclusions of the report.

12. The twelfth part of the report is devoted to a detailed analysis of the conclusions of the report.

13. The thirteenth part of the report is devoted to a detailed analysis of the conclusions of the report.

14. The fourteenth part of the report is devoted to a detailed analysis of the conclusions of the report.

15. The fifteenth part of the report is devoted to a detailed analysis of the conclusions of the report.



"Burns Liner Hanger" at 4021.86 feet

7 5/8" OD casing set at 4121.34 feet

MESAVERDE DATA

TOP OF MESAVERDE — 5110'

BOTTOM OF MESAVERDE — 6183'

PERFORATIONS : 5572' — 6180'

GRANEROS — DAKOTA DATA

TOP OF GRANEROS — 8068'

BOTTOM OF GRANEROS — 8225'

PERFORATIONS : 8090' — 8214'

TOP OF DAKOTA — 8225'

DAKOTA TO TOTAL DEPTH OF 8392'

PERFORATIONS : 8228' — 8364'

"Otis" side door choke
with straight thru Mandril
at 6190 feet

"Baker" EGJ Packer with
hydraulic holddown at 7306'

2 3/8" OD tubing at 8302.73'

PBTD 8365'

Open Hole — 5 1/2 OD casing at 8375'

TD 8392'

DIAGRAMATIC SKETCH OF DUAL GAS
COMPLETION FOR "N" WELL 4-6

NORTHWEST PRODUCTION CORPORATION
ALBUQUERQUE, NEW MEXICO

APPLICATION FOR DUAL GAS COMPLETION
OF "N" WELL 4-6 IN MESAVERDE AND
GRANEROS-DAKOTA FORMATION

RIO ARriba COUNTY
NEW MEXICO

CONTRACT # 119

DRAWN: W.H. McGahey
APPROVED: RAY PHILLIPS

SCALE: 1" = 600'
DATE: MAR. 7, 1957