

NUMBER OF COPIES RECEIVED		5
DISTRIBUTION		
SANTA FE		
FILE	1	
U.S.G.S.		
LAND OFFICE		
TRANSPORTER	OIL	
	GAS	1
PRODUCTION OFFICE		
OPERATOR		

NEW MEXICO OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO  
**CERTIFICATE OF COMPLIANCE AND AUTHORIZATION  
TO TRANSPORT OIL AND NATURAL GAS**

**FORM C-110**  
(Rev. 7-60)

FILE THE ORIGINAL AND 4 COPIES WITH THE APPROPRIATE OFFICE

Company or Operator <b>Southern Union Production Company</b>				Lease <b>Quinn</b>		Well No. <b>5</b>	
Unit Letter <b>M</b>	Section <b>18</b>	Township <b>31N</b>	Range <b>8W</b>	County <b>San Juan</b>			
Pool <b>Blanco Masaverde</b>				Kind of Lease (State, Fed, Fee) <b>Federal</b>			
If well produces oil or condensate give location of tanks			Unit Letter <b>M</b>	Section <b>18</b>	Township <b>31N</b>	Range <b>8W</b>	
Authorized transporter of oil <input type="checkbox"/> or condensate <input checked="" type="checkbox"/> <b>M &amp; H Trucking Company or Luna-Eaves Trucking Company</b>				Address (give address to which approved copy of this form is to be sent) <b>Farmington, New Mexico</b>			
Is Gas Actually Connected? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
Authorized transporter of casing head gas <input type="checkbox"/> or dry gas <input checked="" type="checkbox"/> <b>Southern Union Gathering Company</b>			Date Con- nected <b>12/29/54</b>	Address (give address to which approved copy of this form is to be sent) <b>Attn: Mr. J. R. Byrum, Fidelity Union Tower Bldg., Dallas, Texas</b>			

If gas is not being sold, give reasons and also explain its present disposition:

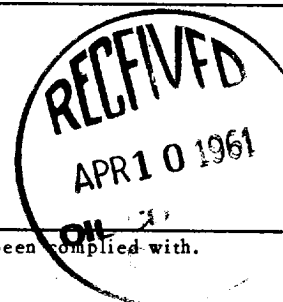
**REASON(S) FOR FILING** (please check proper box)

New Well ..... ☐  
Change in Transporter (check one)  
Oil ..... ☐ Dry Gas .... ☐  
Casing head gas . ☐ Condensate.. ☐

Change in Ownership ..... ☒  
Other (explain below)

**CHANGE OF OPERATOR FROM SOUTHERN UNION GAS COMPANY**

Remarks



The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 24th day of March, 19 61.

OIL CONSERVATION COMMISSION

Approved by  
**Original Signed By  
A. R. KENDRICK**

Title  
**PETROLEUM ENGINEER DIST. NO. 3**

Date  
**APR 10 1961**

By  
**ORIGINAL SIGNED BY  
ROBERT J. GRAF**  
Title  
**Robert J. Graf  
Jr. Exploration Engineer**

Company  
**Southern Union Production Company**

Address  
**Fidelity Union Tower Bldg., Dallas, Texas**

The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \int_0^x f(t) dt$ . It is shown that  $f(x)$  is a constant function, and its value is determined by the initial condition  $f(0) = 1$ .

In the second part, we consider the problem of finding the maximum value of the function  $f(x)$  on the interval  $[0, 1]$ . It is shown that the maximum value is attained at  $x = 0$  and is equal to 1.

Finally, we discuss the question of the uniqueness of the solution of the differential equation  $f'(x) = f(x)$  with the initial condition  $f(0) = 1$ . It is shown that the solution is unique and is given by the function  $f(x) = e^x$ .

The results of the paper are summarized in the following table:

Property	Value
$f(0)$	1
$f'(x)$	$f(x)$
$f(x)$	$e^x$

The author wishes to express his gratitude to the referee for his valuable comments and suggestions.

The work was supported by the National Science Foundation under Grant No. 1234567.

Received by the Editor: January 1, 1964.