

THE TEXAS COMPANY

STATE OF NEW MEXICO "AR" NO. 2

Drill Stem Test:

DST#1: 11360-11500 Tool open 3 hours. Oil to surface in one hours. Flowed 41 barrels of oil in 2 hours.

DST#2: 11498-11698 Tool open 2 hours and 45 minutes. Oil to surface in 45 minutes. Flowed 82 barrels of oil the first hour and 70 barrels of oil the second hour.

1. The first part of the paper is devoted to the study of the

the following problem:

Let  $f$  be a function defined on the interval  $[0, 1]$  and let  $F$  be its antiderivative. Then

the following theorem holds: If  $f$  is continuous on  $[0, 1]$  and if  $F$  is differentiable on  $[0, 1]$ , then  $F'(x) = f(x)$  for all  $x$  in  $[0, 1]$ .