

OIL CONSERVATION COMMISSION

BOX 2045

HOBBS, NEW MEXICO

DATE April 26, 1962

OIL CONSERVATION COMMISSION
BOX 871
SANTA FE, NEW MEXICO

Re: Proposed NSP _____

Proposed NSL _____

Proposed NFC _____

Proposed DC _____

Amended SWD _____ X

Gentlemen:

I have examined the application dated _____
for the Pure Oil Co. State Lea "I" #1-36 36-18-35
Operator Lease and Well No. S-T-R

and my recommendations are as follows:

O.K.----E.F.E.

Geologically O.K.---J.W.R.

Yours very truly,

OIL CONSERVATION COMMISSION

The first part of the paper is devoted to the study of the asymptotic behavior of the sequence of functions $f_n(x)$ defined by the recurrence relation

$$f_{n+1}(x) = \frac{1}{2} \left(f_n(x) + \frac{1}{f_n(x)} \right), \quad f_1(x) = x.$$

It is shown that for any fixed x , the sequence $f_n(x)$ converges to the positive square root of x , i.e., \sqrt{x} . This result is proved by induction and the use of the inequality $f_n(x) \geq \sqrt{x}$.

The second part of the paper is devoted to the study of the asymptotic behavior of the sequence of functions $f_n(x)$ defined by the recurrence relation

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