

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. BOX 2045

HOBBS, NEW MEXICO

Date Oct. 5, 1956

To:

Re: Gas Wells

Skelly Oil Co.

This is:

Box 38

A New Gas Well ( )  
An oil well converted to gas ( )  
An Oil-Gas Dual ( ☒ )  
A Gas-Gas Dual ( )

Hobbs, New Mex.

Gentlemen:

Form C-104 has been received on your Baker "B" HC-K 10-22-37,  
Lease and Well No. Unit S-T-R

But no allowable can be assigned this well until the following forms have been received:

Form C-110 \_\_\_\_\_

Plat \_\_\_\_\_

NSP Order \_\_\_\_\_

Affidavit of communitization \_\_\_\_\_

Notice of Connection \_\_\_\_\_

And a 240 acre allowable will be assigned in the Sumont Pool under MSP Order No. 303.

Filed 8/24/56

Filed 8/6/56

Application filed 7/10/56

Filed Not Needed

Date of connection 1/27/54

OIL CONSERVATION COMMISSION

*C. M. Ludy*  
\_\_\_\_\_  
Engineer, District 1

Original-Operator  
CC-File

Original-CCC, Santa Fe  
CC-File, operator &  
Transporter-- **PB**

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 311

PROBLEM SET 1

Due: 10/10/11

1. (10 points)

A particle of mass  $m$  moves in a potential  $V(x) = \frac{1}{2}kx^2$ .

Find the energy levels  $E_n$  for  $n = 0, 1, 2, \dots$

Express your answer in terms of  $m$ ,  $k$ , and  $\hbar$ .

2. (10 points)

A particle of mass  $m$  moves in a potential  $V(x) = \frac{1}{2}kx^2 + \frac{1}{4}\alpha x^4$ . Find the energy levels  $E_n$  for  $n = 0, 1, 2, \dots$  to first order in  $\alpha$ .

3. (10 points)

Find the wave function  $\psi(x)$  for  $n = 0$ .

4. (10 points)

Find the wave function  $\psi(x)$  for  $n = 1$ .

Express your answer in terms of  $m$ ,  $k$ ,  $\hbar$ , and  $x$ .

5. (10 points)

6. (10 points)

7. (10 points)

8. (10 points)

9. (10 points)

10. (10 points)

11. (10 points)

12. (10 points)

13. (10 points)

14. (10 points)

15. (10 points)