

ATTACHMENT
OIL CONSERVATION COMMISSION FORM C-104

DEVIATION SURVEYS

Operator: **Stelts & Company - Clark**

Lease & Well No. **Julie No. 1**

Location: **Unit 0, Sec. 29, T11S, R33E**

<u>Depth</u>	<u>Degrees</u>	<u>Depth</u>	<u>Degrees</u>
350	1/4	6710	1
900	1/4	7080	1
1410	3/4	7698	1
2020	1/4	7908	1 1/4
2554	1	8215	1
3050	1 1/2	8420	1
3393	1 1/4	8535	1 1/4
3738	1	8698	1
4296	1/2	9109	3/4
4920	3/4	9496	1
5335	1	9670	1/4
5720	3/4	9850	3/4
6090	1/2	9964	1 1/4
6402	3/4	10261	1

I do hereby certify that the above information was

furnished by Jack Brown with Stelts & Company

and is true and complete to the best of my knowledge.

A. L. Smith

Subscribed and sworn to before me this 30th day

of April, 1968.

Betty Kautz
Notary Public in and for
Lea County, New Mexico

My commission expires 11/18/69.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYS 435

STATISTICAL MECHANICS

PROBLEM SET 1

Due: Monday, September 15, 2008

1. Consider a system of N particles in a volume V at temperature T .

(a) Write down the partition function Z for the system.

(b) Calculate the average energy $\langle E \rangle$ and the heat capacity C_V .

(c) Show that $C_V \rightarrow 3Nk_B$ in the high temperature limit.

(d) Show that $C_V \rightarrow 0$ in the low temperature limit.

(e) Calculate the entropy S of the system.

(f) Calculate the Helmholtz free energy A .

(g) Calculate the pressure P of the system.

(h) Calculate the compressibility κ_T of the system.

(i) Calculate the thermal expansion coefficient α_P .

(j) Calculate the Grüneisen parameter γ .