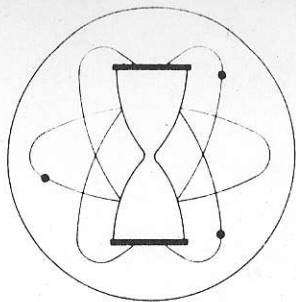


TROUT LAKE  
82K/12 802629



# KRUEGER ENTERPRISES, INC.

## GEOCHRON LABORATORIES DIVISION

24 BLACKSTONE STREET • CAMBRIDGE, MA. 02139 • (617)-876-3691

*Anal  
85/69*

### POTASSIUM-ARGON AGE DETERMINATION

### REPORT OF ANALYTICAL WORK

Our Sample No. B-3616

Date Received: 4 August 1976

Your Reference: Letter of 27 July 1976

Date Reported: 13 September 1976

Submitted by: G. deMille  
Imperial Oil Ltd., Minerals Section  
500 6th Avenue SW  
Calgary, Alberta  
CANADA TSP OS1

Sample Description & Locality: Biotite granodiorite sample.

Material Analyzed: Biotite concentrate, -60/+200 mesh. Estimated composition:  
Biotite, 80%; Pale green chlorite, 20%; Others, less than 1%.

Ar<sup>40</sup>\*/K<sup>40</sup> = .004580

AGE = 76.7 ± 2.9 M.Y.

*anal  
85/69*

#### Argon Analyses:

Ar <sup>40</sup> *, ppm.	Ar <sup>40</sup> */ Total Ar <sup>40</sup>	Ave. Ar <sup>40</sup> *, ppm.
.02913	.580	.02989
.03064	.203	

#### Potassium Analyses:

% K	Ave. %K	K <sup>40</sup> , ppm
5.441	5.348	6.525
5.256		

#### Constants Used:

$\lambda_\beta = 4.72 \times 10^{-10}$  / year  
 $\lambda_e = 0.585 \times 10^{-10}$  / year  
 $K^{40}/K = 1.22 \times 10^{-4}$  g./g.

$$AGE = \frac{1}{\lambda_e + \lambda_\beta} \ln \left[ \frac{\lambda_\beta + \lambda_e}{\lambda_e} \times \frac{Ar^{40*}}{K^{40}} + 1 \right]$$

Note: Ar<sup>40</sup>\* refers to radiogenic Ar<sup>40</sup>.

M.Y. refers to millions of years.

Location of Sample Site: Pit at 9250' N, 0480' E