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K-Ar AGE OF LAMPROPHYRE DIKE FROM THE KERR-McGEE POTASH MINE, SOUTHEASTERN NEW MEXICO

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This paper lists four K-Ar radiometric age determinations for a lamprophyre dike intrusive into evaporite in the Kerr-McGee Potash Mine, Lea County, New Mex. (32°31'47"N, 108°13'28"W; S31,T20S,R32E). The samples were taken from 466 meters below the surface at several times. The area of the mine is now closed for subsequent sampling as it has been mined out and being allowed to cave. Samples 1 and 2 have been reported by Calzia and Hiss (1978); samples 3 and 4 are from lamprophyre in contact with evaporite. Calzia and Hiss (1978) have described the lamprophyre and its setting in detail.

1. *022 WR (Calzia and Hiss, 1978)* K-Ar
Biotite basalt, Kerr-McGee Potash Mine. *Analytical data:* K_2O = 5.97%, $^{*40}Ar$ = 2.79 x 10^{-10} moles/g, $^{*40}Ar/\Sigma^{40}Ar$ = 67%. *Collected by:* J. P. Calzia and W. P. Hiss. *Analyzed by:* J. H. Tilling, J. Morton, M. L. Silberman (U.S.G.S., Menlo Park).
(whole rock) 32.2 ± 1.0 m.y.

2. *3-1-71 WR (Calzia and Hiss, 1978)* K-Ar
Lamprophyre, Kerr-McGee Potash Mine. *Analytical data:* K_2O = 5.46%, $^{*40}Ar$ = 2.76 x 10^{-10} moles/g, $^{*40}Ar/\Sigma^{40}Ar$ = 65%. *Collected by:* C. Jones. *Analyzed by:* R. R. Marvin, H. H. Mehnert, V. Merritt (U.S.G.S., Denver).
(whole rock) 33.9 ± 0.8 m.y.*

3. *MB76-23* K-Ar
Contact zone lamprophyre, Kerr-McGee Potash Mine. *Analytical data:* K = 5.935%, $^{*40}Ar$ = 0.01485 ppm, $^{40}Ar/\Sigma^{40}Ar$ = 43.2%. *Collected by:* Marc Bodin, Jr. *Analyzed by:* Geochron Laboratories, Inc.
(whole rock) 34.7 ± 1.4 m.y.

4. *MB76-34* K-Ar
Contact zone lamprophyre, Kerr-McGee Potash Mine. *Analytical data:* K = 5.951%, $^{*40}Ar$ = 0.01474 ppm, $^{*40}Ar/\Sigma^{40}Ar$ = 63.3%. *Collected by:* Marc Bodin, Jr. *Analyzed by:* Geochron Laboratories, Inc.
(whole rock) 34.4 ± 1.3 m.y.

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*This date has been recalculated to be 34.8 ± 0.8 m.y. (Isochron/West, no. 26, 1979; p. 26).

REFERENCE

Calzia, J. P., and Hiss, W. L. (1978) Igneous rocks in northern Delaware Basin, New Mexico and Texas: N. M. Bur. Mines & Min. Resources Circ. 159, p. 39.