defined by data from the gabbro is distinct from that of the pegmatite, and has concordia intercepts of 507 ± 1 m.y. and 2,000 ± 100 m.y. The lower intercept is well defined because all points plot close to the concordia curve, whereas the upper intercept is more uncertain.

The chord defined by the gabbro data is interpreted by us to be the result of a mixture of two components of zircon: an older component, and a younger component that is presumably the same age as the pegmatite zircon. The lower intercept of 507 m.y., clearly younger than the age of the pegmatite zircon, must be largely due to discordance of the young component.

Microscopic examination of the gabbro zircon in oils of high refractive index has not revealed any obvious cores in the zircons that might be interpreted as the older component. However, the clustering of the gabbro data near the lower intercept indicates that the younger component greatly dominates the mixture, and the older component may be present as small, unidentifiable inclusions within the crystals.

The upper intercept of 2,000 ± 100 m.y. for the gabbro chord must be interpreted as a maximum average age of the contaminating zircon. This age is interesting because it is much older than any reported on igneous rocks from the Wichita Mountains or in the adjacent subsurface of the Midcontinent region (Bickford and Lewis, 1979; Bickford and others, 1981b). The most likely source of the contaminant zircon is believed to be the Meers Quartzite, because large, partly digested xenoliths of it are found in the Mount Sheridan Gabbro near Rowe Quarry (Powell and Fischer, 1976). Ham and others (1964) reported as much as 1 percent detrital zircon in the Meers Quartzite, and thus it represents an

TABLE 16.—ISOTOPIC DATA FOR ZIRCON FROM MOUNT SHERIDAN GABBRO (WM–1) AND ASSOCIATED PEGMATITE (WM–2)

Sample	zircon fraction⊕	Concentrations+ (ppm)		Measured Ratios*			Calculated Ratios##			Age (m.y.)#
		U	Pb	$^{206}Pb/^{208}Pb$	$^{206}Pb/^{207}Pb$	$^{206}Pb/^{204}Pb$	$^{206}Pb^{**}/^{238}U$	$^{207}Pb^{**}/^{235}U$	$^{207}Pb^{**}/^{206}Pb^{**}$	$^{207}Pb^{**}/^{206}Pb^{**}$
WM-1	A	587.1	58.42	3.66	15.77	7,751	0.08625	0.73166	0.06153	658
	B	678.5	67.41	3.35	16.22	12,048	0.08469	0.70596	0.06046	620
	C	1137.7	115.41	2.92	16.62	15,625	0.08385	0.68494	0.05925	576
	E	1872.8	194.27	2.60	16.78	17,543	0.08331	0.67519	0.05878	559
	F	2045.3	215.81	2.51	15.59	2,632	0.08316	0.67221	0.05863	553
WM-2	A	116.7	10.61	4.80	15.38	2,141	0.08216	0.65975	0.05824	539
	B	186.6	16.31	5.33	15.46	2,242	0.08042	0.64531	0.05820	537
	C	579.7	54.49	3.72	11.04	447	0.07694	0.61561	0.05803	531
	D	1404.0	125.57	4.03	15.76	2,674	0.07866	0.62920	0.05801	530

⊕ Zircons were separated for analysis according to differing magnetic suseptibility: A = least magnetic, F = most magnetic.

\+ Zircons were analysed by methods similar to those described by Krogh (1973). Total analytical Pb blank during this study was 1.5 ng. Concentrations for U and Pb ± 1%.

* Isotopic ratios corrected for analytical blank. Precision for measured ratios is ± 0.1% or better except for $^{204}Pb/^{206}Pb$ ratios for which absolute precision is ± 0.00001.

** Indicates radiogenic Pb.

\# Constants used for age calculations: $^{238}U = 1.5513 \times 10^{-10}$/yr; $^{235}U = 9.8485 \times 10^{-10}$/yr. (Steiger and Jäger, 1977).

\## Common Pb corrections were made according to Stacey and Kramer (1975).