



### EXPLANATION

Order may not reflect age

	Mayo Formation	PRECAMBRIAN		Possible thrust fault <i>Queried where inferred. Sawteeth on upper plate</i>
	Crow Formation			Fault from photographs
	Bugtown Formation			Concealed fault <i>Showing probable direction of movement. Located by airborne magnetometer survey and by gravity survey</i>
	Garnetiferous quartz-mica schist			Lineament
	Quartzite and sillimanite schist			Anticline <i>Showing crestline and direction of plunge</i>
	Quartz-mica schist <i>Containing some beds of grunerite schist</i>			Syncline <i>Showing troughline</i>
	Garnetiferous and graphitic schist			Overturned anticline <i>Showing direction of dip of limbs</i>
	Pegmatite and granite			Monocline <i>Showing trace and direction of plunge. Dashed where indefinite</i>
	Northeast-trending dike of layered pegmatite			Strike and direction of dip of beds
	Contact <i>Dashed where approximately located or based on reconnaissance mapping; short dashed where indefinite. Dotted line shows limit of mapped area</i>			Magnetic contours <i>Showing total intensity magnetic field of the earth in gammas relative to arbitrary datum. Hachured to indicate closed areas of lower magnetic intensity. Interval 100 gammas</i>
	Normal fault <i>Located in structural zone, or northeast of mapped area shown on plate 1</i>		Measured maximum or minimum intensity within closed high or closed low <i>In gammas</i>	

4	3	2
5		
6	7	1
	8	9
	10	11
	12	
	13	14
	15	16

- SOURCES OF DATA  
References are listed in text
1. Meuschke, Johnson, and Kirby (1963) [aeromagnetic data]
  2. Redden (1963, pl. 21 and fig. 75)
  3. Darton and Paige (1925)
  4. Brobst and Epstein (1963, pl. 25)
  5. Cuppels (1963, pl. 23)
  6. Brobst (1961, pl. 5)
  7. Braddock (1963, pl. 20)
  8. Schnabel (1963, pl. 17)
  9. Gott and Schnabel (1963, pl. 12)
  10. V. R. Wilmarth, U.S. Geol. Survey (unpub. data)
  11. Wolcott, Bowles, Brobst, and Post (1962)
  12. Wolcott (1967, pl. 28)
  13. Ryan (1964, pl. 27)
  14. Bell and Post (1971, pl. 32)
  15. Post (1967, pl. 29)
  16. Connor (1963, pl. 11)
- Gravity data by R. A. Black, U.S. Geol. Survey (unpub. data)

MAP OF PART OF THE SOUTHERN BLACK HILLS, SOUTH DAKOTA AND WYOMING, SHOWING MESOZOIC AND CENOZOIC DEFORMATION ALONG PRECAMBRIAN STRUCTURES