in a matrix of black argillite, and on Boyer lake the same argillite carrying scattered pebbles of granite forms a bed a few feet in thickness overlying the conglomerate. Its appearance is identical with the slate conglomerate of the Cobalt series. Overlying the argillite band is found the monotonous unbedded greywacke described on page 22. Its thickness was not determinable owing to its flat-lying structure and its lack of bedding. On the south side of Boyer lake, however, it rises into a hill about 150 feet high, so that its thickness must be at least 150 feet. If a uniform dip of 10 degrees be assumed for it between Boyer lake and Sinclair lake, the thickness is at least 1,300 feet. The true thickness probably lies between these extremes. Like the arkose of the Midlothian area, the greywacke is composed almost entirely of rhyolite debris.

On the eastern side of the Bannockburn area D. J. Fisher observed considerable thicknesses of flat-lying black slates apparently overlying the greywacke. These slates contained no grains of red feldspar or bands of reddish material such as are almost invariably found in the slates of the Cobalt series in this district. They were, therefore, mapped as part of the Kiask series.

The relation between the formations of the Midlothian and Bannockburn areas may be rendered clearer by the following diagram:

	Arkose with carbonated beds?	Slate	
Midlothian area	Arkose and conglomerate ± 6,000 feet	Greywacke ± 1,300 feet	Bannockburn area
	Slate 80 feet	Slate 6 feet	
	Conglomerate 300–3,000 feet	Conglomerate 30–50 feet	

Folding. The Midlothian area has been tightly folded, so that the rocks now are all on edge, with almost vertical dips. The strikes follow closely the boundaries against the rhyolite. At the nose of the fold, near the district line, the general strike of the beds on the southern limb of the fold is south 75 degrees east, that of the northern limb is about north 20 degrees east. The axis of the fold, lying midway between the two, strikes north 65 to 70 degrees east, and, since the syncline narrows to the west, is plunging steeply to the east. As the dips are about the same on both limbs of the fold, the axial plane is vertical.

The south side of the area of Kiask series, which has been carefully mapped, shows two pronounced bends to the south, one to the west of Midlothian lake, the other at the northeast corner of Lloyd lake. The strikes of the rocks here follow closely the curves of the contact, so that these are concluded to be drag folds on the flanks of the main syncline. The axes of these secondary folds strike north 35 degrees east and north 70 degrees east, indicating that the folding has been of the normal type.