

PREFACE

This guidebook follows in the tradition of several earlier guidebooks on the Wichita Mountains area, published by the Oklahoma Geological Survey. Particularly useful are those by Stone (1967), Johnson and Denison (1973), and Powell and Fischer (1976). These guidebooks not only provide discussions and data on areas and units not covered in the present effort, but also supplement areas covered here. This new book is warranted because much work has been initiated since 1976. Presentation of some of this newer work in a guidebook format allows early discussion and pinpoints outcrops critical to interpretation of the region.

All the stops are new in the sense that none has been listed in a published guidebook before. Stops are concentrated in the eastern Wichitas, where the largest outcrops occur and where the most complete section of the Wichita Uplift block is exposed. We are pleased to have a series of stops covering not only all major aspects of the igneous stratigraphy and key lower Paleozoic sedimentary units, but some of the important structural features as well. An important part of the guidebook is the series of 1:12,000-scale geologic maps on topographic bases accompanying the stop descriptions. Some of these have been supplemented with structure sections to amplify the field relations. An additional useful feature is the series of topical discussions in the first part of the book. These discussions provide background for the stops, describe the regional setting of the Wichita Mountains crustal block, and give contexts for the field relations.

The guidebook contributes to a larger effort by the Oklahoma Geological Survey to make available a new, detailed geologic map of the Wichita Mountains, with Gilbert responsible for the igneous units and Donovan for the lower Paleozoic sedimentary outcrops. This guidebook and the forthcoming map should help the geologic community gain a better understanding of the evolution of the Southern Oklahoma Aulacogen. The nature of the basement and the specific features of the Wichita Uplift are obviously important in following development of the Anadarko and Hollis-Hardeman Basins.

A number of individuals and organizations must be acknowledged for their contributions. Some are recognized in the articles that follow. Specifically for their willingness to permit and aid access to the field stops, we thank T. O. Materials Co., and the Nelson Davis family [now operated as Blue Rock Pit by Robert Spillers] (Stop 1); Jerry Treadwell (Willis Ranch), James Raasch, and James and Nick Callen (Stop 2); Jim Snell, and Robert and John Phelon (Stop 3); the Wichita Mountains Wildlife Refuge, Robert Karges, manager, and Tom Westmoreland, chief public use specialist (Stops 3-6); the Commanding General, Fort Sill, through Anne Powell, Public Affairs Office (Stops 7 and 8); Jim Wright and Woody Wolverton (Stop 9); and Mr. and Mrs. Oliver, of Kimball Ranch (Stop 10).

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