

**RECORDS OF THE GEOLOGICAL SURVEY OF INDIA, (Western Region).**  
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This volume contains extended abstracts of progress reports of 1989–90 of the Officers of the Western Region (Rajasthan and Gujarat) of the Geological Survey of India. The Overview draws attention to the major tasks undertaken and promising results, if any, obtained. Quaternary geological mapping in Rajasthan has been done to demarcate fluvial and aeolian morphostratigraphic units. It is hoped that this detailed mapping will aid in the understanding of desertification. In order to appreciate better the intricate relationship between the granite and greenstone sequence in Rajasthan, the Mangalwar Complex is being mapped and studied in detail. Mineral investigations so far undertaken, though helpful in explaining the origin and evolution of certain deposits, have not yet thrown up economically important occurrences. However, silver mineralisation in the Bhagera Block of Bharak area, Zn-Pb-Ag-Cd-Hg-Sb mineralisation in the North Sindesar Ridge (South) Block, are promising. A few phosphorite bands in Dhol-ki-Patti area in Udaipur district and thin lignite seams in Umarsar Block, Kachch district, Gujarat are some of the other new finds. Among the laboratory investigations a rich palynological assemblage of 53 species belonging to 33 genera have been identified from Matanomadh Formation overlying Deccan Traps in Viri area. A number of geotechnical investigations were taken up which are bound to be of considerable importance in executing construction works in those areas. It is heartening to note that the aid of geophysics is being taken in many of these investigations with commendable results. The volume also contains towards the end, a brief report on the work done in each division, by the respective Directors of the divisions.

Unlike Abstracts Volumes, which usually do not contain any figures, the Geological Survey has rightly thought fit to include as many maps and sections as possible to add to the value of the text material. This is all the more necessary since it is very rarely that geological maps and sections as prepared by the Officers of the GSI get published, on the scales mapped by them. While a majority of maps have been reproduced well, some lack scale (Fig. 54; A single latitude and longitude is not of much help in locating the area). Some maps are too much crowded with details (Fig. 64). Structural symbols cannot be deciphered with ease in the final printed maps (Figs. 5, 6 and 40). "References" on page 48 is obviously misplaced or incomplete. The colour photograph of Type Section of Chhasra Member of Vinjhan Shale on the cover is also out of place. It would have been more appropriate to have used it on the cover of Vol. 115, Parts 7 and 8! On the whole the volume contains useful information, well presented in a readable form, and will be found useful by earth scientists working in other professional organisations as well as in the universities.

R. V.

**GROUNDWATER MANAGEMENT—AN APPLICATION.** By M. K. Maitra and N. C. Ghose (1992). Asish Publishing House, 8/81, Punjabi Bagh, New Delhi 110026  
 301 pages, Rs. 600/-

Though it is common knowledge that enterprising scholars manage to publish all sorts of Ph.D. theses as books, some of them are good. This volume has apparently germinated out of the Ph.D. thesis of the senior author, with useful