

FIELD EXCURSION TO EXAMINE THE JURASSIC SEDIMENTOLOGY AND STRUCTURE OF THE NORTH SOMERSET COAST, 5TH JANUARY, 2014



M.W.ANDERSON¹, G.D.PRICE¹, D.C.P.PEACOCK² AND K.N.PAGE¹

Anderson, M.W., Price, G.D., Peacock, D.C.P. and Page, K.N. 2014. Field excursion to examine the Jurassic sedimentology and structure of the North Somerset coast, 5th January, 2014. *Geoscience in South-West England*, **13**, 362-364.

Members of the Society assembled at the car park at Kilve beach [ST 1445 4425], on a wet and windy January morning. The purpose of the field trip was to determine the timing and nature of structures along the southern margin of the Bristol Channel Basin, examine evidence for the role of elevated fluid pressure in the structural development of the basin (including looking at the early Jurassic mud volcanoes) and further examine stratigraphic and structural evidence for basin inversion. The trip included visits to three principal locations where a range of sedimentary strata and structures are exposed.

¹ School of Geography, Earth and Environmental Sciences, Plymouth University, Drake Circus, Plymouth, PL4 8AA, U.K.

² Statoil, Sandsliveien 90, NO-5020, Bergen, Norway

Keywords: Triassic, Jurassic, Somerset, structure, basin inversion.

INTRODUCTION

The group followed the path to the coast (past the red brick oil retort, built in 1924 as part of the anticipated, but unsuccessful, Somerset oil boom). At this point there are Lower Lias (Sinemurian, Palmer, 1972) limestones and shales exposed spectacularly for more than 3 kilometres in both cliff sections and on the wave-cut platform, generally younging eastwards

towards Hinckley Point Power Station (Figures 1, 2a). Here, and elsewhere along this part of the Somerset coast, the exposures of the gently-dipping Jurassic strata provide an insight into the character of the sedimentology, palaeontology and faulting in the region. The faulting includes a series of east-west striking normal faults and veins, many showing reverse

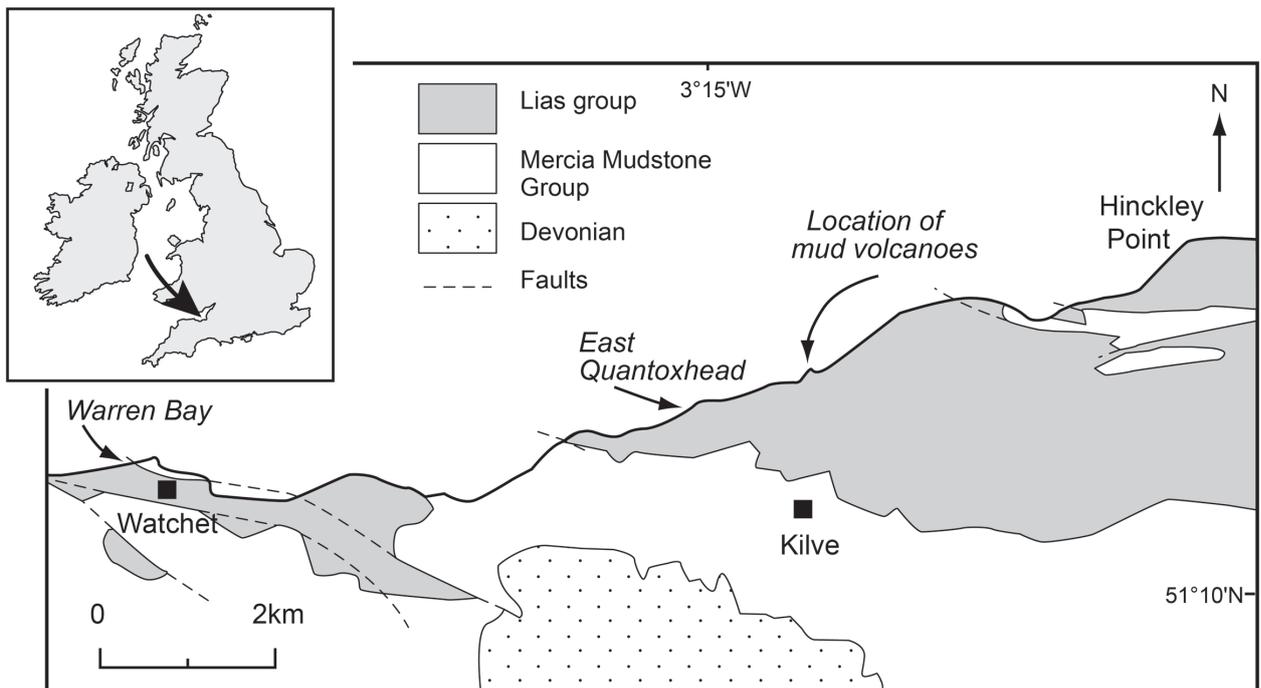


Figure 1. Locations visited and outline geology of the west Somerset coast around St Audrie's Bay (based on British Geological Survey 1:50 000 sheet 279 - Weston-Super-Mare).