

FIROZPUR CORE







E1: Thick silt/sand sheets

Two sedimentary cycles are recorded in this core. A basal unit comprises floodplain facies (F1) in the lower part and red– brown mottling and sparse kankars in the upper part. Cycle I commences with ~3 m of channel sand facies (C1) that grade up into very fine sand to silt (C2), overlain by ~9 m of red– brown floodplain muds (F2) with kankar accumulations that yield high LOI values (~10%). Cycle II begins with ~8 m of channel sand (C1) with sparse concretions, and shows red and brown mottling, more reddish in the top part. This is overlain by intercalated finer sands (C2) and yellow–brown mud (F1), capped by a modern soil.

The lower, incomplete fluvial cycle I starts with a thin sandy facies that yielded a minimum age of 31.6±2.7 ka, below thick floodplain muds with a low to moderate degree of pedogenesis. This date may represent a splay deposit during the pre-LGM period. The upper channel sand body yielded two dates, 10.5±1.7 ka and 8.5±1.2 ka from the middle and lower parts, respectively, and therefore represents a Holocene channel.

Ref: Sinha, R., Bhattacharjee, P., Sangode, S.J., Gibling, M.R. and Tandon, S.K., Jain, M. Godfrey, D. (2007). Valley and interfluve sediments in the southern Ganga plains, India: exploring facies and magnetic signatures. Sedimentary Geology, 201, 386-411.