

List of Plates

<i>Sl. No.</i>	<i>Plates</i>	<i>Page No</i>
4.1	Field photograph showing inclined Deccan Trap outcrops (Loc: Haripura – Kadod).	74
4.2	Field photograph showing inclined Deccan Trap outcrops (Loc: Gavachhi, Vare Khadi).	75
4.3	Field photograph showing inclined siltstone beds (Loc: Puna).	75
4.4	Field photograph showing inclined Deccan Traps and Quaternary sediment layers (Loc: Umarsadi).	76
4.5	Field photograph depicting open warping in Quaternary sediments (Loc: Haripura).	77
4.6	Field photograph showing the dislocation of calcretic layers and thrusting of Quaternary sediments (Loc: Jhaloda).	77
4.7	Field photograph showing open warping in the sedimentary layers (Loc: Piloda).	78
4.8	Field photograph showing a ravine, presently occupied with monsoonal water (Loc: Mandvi).	82
4.9	Field photograph showing the presence of a knick point within the river channel (Loc: Munjhlav).	83
5.1	Field photograph of an excavated trench giving a view of disposition pattern of coarse and fine sediments (Loc: Chopda, Tapi river).	97
5.2	Field photograph showing an inclined cliff (Loc: Jhaloda, Tapi river).	97
5.3	Field photograph depicting the cliff-section exposed at river Aner (Tributary of Tapi river).	97
5.4	Field photograph depicting laminated silt and clay units (Loc: Thalner, Tapi river).	97
5.5	Field photograph showing presence of calcretic tubes within the mud unit (Loc: Wareth-Petia, Tapi river).	102
5.6	Field photograph showing the cross-stratified sand unit (Loc: Wareth, Tapi river).	102
5.7	Field photograph depicting the cliff-sections (Loc. - Mandvi, Tapi river).	102
5.8	Field photograph showing laminations within silt units (Loc: Mandvi, Tapi river).	102
5.9	Field photograph of a cliff giving a view of the inclined siltstone unit and planation surfaces (Loc: Puna, Tapi river).	112
5.10	Field photograph showing river cliff sections (Loc: Dhatwa, Tapi river).	112
5.11	Field photograph depicting the contact between Quaternary sediments and Kand Formation (Loc: Gaypagla, Tapi river).	112
5.12	Field photograph depicting the cliff-section exposed at Gordha location, Vyare Khadi.	112
5.13	Field photograph depicting the cliff-section exposed at Karchaka Location, Mindhola river.	122

5.14	Field photograph showing river cliff and planation surfaces (Loc: Amalsadi, Mindhola river).	122
5.15	Field photograph showing the cross-stratified sand unit (Loc: Amalsadi, Mindhola river).	122
5.16	Field photograph depicting the presence of calcretic tubes within the intercalating silt and clay units (Loc: Amalsadi, Mindhola river).	122
5.17	Field photograph depicting sequence of calcretisation (Loc: Dhatwa, Tapi river).	127

List of Tables

<i>Sl. No.</i>	<i>Tables</i>	<i>Page No</i>
2.1	Litho – stratigraphic succession of Cambay basin.	22
2.2	Litho – stratigraphic succession of the study area.	20
3.1	A landform interpretation key of the study area.	38
4.1	Historical records of earthquakes in the study area and its environs (After Bansal and Gupta, 1998).	86
6.1	Granulometric analyses of Quaternary sand samples exposed along the Kim, Tapi and Mindhola rivers.	131
6.2	Mineralogical details of the Quaternary samples of the study area.	155
6.3	Semi-quantitative analyses of the Quaternary sediments of the study area.	160
6.4	Table showing the various surface textures exhibited by the quartz grains.	169
6.5	Trace element concentrations in the Quaternary sediments of the study area.	171
7.1	Tectono-eustatic changes in the Lower Tapi River Basin during the Quaternary times. [Global sea level changes on the basis of Fairbridge (1972); Shackleton and Opdyke (1973) and Chappell and Shackleton (1986)]	180
7.2	Composite Quaternary litho-stratigraphy of Lower Tapi River Basin (Numerical values indicate thickness in meters).	192