Table 11.2 - Quaternary stratigraphy of Hong Kong - Offshore Areas

Formation		Seismic Character	Environment of Deposition and Typical Sediments	Age
Hang Hau Formation	Tseung Kwan O Member	Strong basal reflection Horizontal or sub-horizontal parallel layering, low amplitude, some low angle truncation and channel erosion features	Open marine conditions Very soft to soft, grey, structureless clayey silt, with common shells and lenses of fine sand	Oldest radiocarbon date of 7 990 ± 70 years BP
	Kwo Chau Member	Chaotic intraformational reflections	Transgressive marine conditions Muddy, shelly sand overlain by interbedded sand and clayey silt	Oldest OSL date of 11 342 ± 2 468 years BP
		Ravinement Surface R2		
	Pok Liu Member	Strong basal reflection Channel-fill structures, sub-horizontal bedding, asymmetrical channel fill and conformable bedding	Shallow, brackish waters Grey, sandy, shelly, clayey silt with organic debris and bands of fine sand	Radiocarbon dates 8 080 ± 130 to 9310 ± 80 years BP
	Tung Lung Member	Channel cut and fill structures, cross-cutting features and pro-grading channel-fill reflections Large scale asymmetric and clinoform reflections	Laterally accreting filling of meandering, fluvio-estuarine channels Sand with interbedded clayey silt, coarser sand with gravel at the base	Estimated 13 000 to 12 000 years BP
		Fluvial Entrenchment Surface FE2		
Waglan Formation		High amplitude planar basal reflection Chaotic package of lower reflections, overlain by sequence of parallel reflections	Shallow marine deposits Basal Shoreface Sand Unit of interbedded shelly sand and clayey silt (barrier beach?) Upper Marine Shelf Unit of firm, grey, shelly, clayey silt	Radiocarbon dates range from 29 100 ± 1 300 to 40 400 years BP. OSL dates from 23 175 ± 4 738 to 92 000 ± 8 000 years BP
		Ravinement Surface R1		
Sham Wat Formation		Strong undulating basal reflection Low to moderate amplitude reflections, continuous, sub-parallel, draped into channels	Fluctuating brackish and open marine conditions Soft to firm silty clays, grey with bands of yellowish mottling, patches of intense mottling with nodules, some thin sand bands, rare shells commonly corroded	Undetermined: Radiocarbon dates range from 19 580 ± 320 to > 43 860 years BP. OSL dates from 11 283 ± 1 567 to 94 000 ± 16 000 years BP
		Fluvial Entrenchment Surface FE1		
Chek Lap Kok Formation		Complex seismic character, generally chaotic, but containing strong parallel reflections, channel forms and cross-bedded channel fills	Fluctuating sedimentary environments, predominantly alluvial but including lacustrine, mass wasting, intertidal and possibly marine sequences Sediments range widely from clays and silts, to sands, gravels, and also cobbles and boulders	Undetermined: Radio-carbon dates range from 16 420 to >40 000 years BP. TL date of 78 000 ± 8 500, OSL date of 80 000 years BP ± 9 000 years BP Uranium series date of 248 000 ± 12 /16
		?	?	?
Tung Chung Formation		Strong, subhorizontal reflections within steep-sided basins	Poorly sorted sandy silt with cobbles and boulders, infilling sinkholes or channels in a karstic environment	Undetermined: Possible Middle Pleistocene pollen
		Unconformity U1		
Bedrock		Parabolic reflections over granitic corestone-bearing weathering profiles, undulating surface over volcanic rocks, minor scarps developed on inclined bedding in sedimentary rocks	Granitic, volcanic and sedimentary rocks A weathered mantle is developed over the bedrock Generally the mantle is thickest over the granites, less over volcanic rocks, thinnest over sedimentary rocks	Mesozoic to Tertiary Weathering : Tertiary and Quaternary