Shallow seismic velocity structure in the Tokachi Plain,Hokkaido,Japan.

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An intensive seismic refraction experiment was conducted in the Tokachi Plain, Hokkaido, in August,1999, in order to reveal the deep crustal structure. As 40-kg-dynamite explosives were fired at intervals of about 1 to 2km, it is difficult for a seismic reflection method to provide the shallow velocity structure. On the contrary, the precise refraction analysis reveals the three layers; the first layer 2km/sec, the second 3.5km/sec and the third 5km/sec. The third layer corresponds to the Pre-Tertiary basement. Both interfaces of 1/2 and 2/3 layers become gradually deeper eastward, and exhibit a W-vergent anticlinal structure beneath the eastern margin of Tokachi Plain. The result is very useful for succeeding reflection analyses of the deep crustal structure.