

Figure 11.—Thickness of total sediment above bedrock. Based on inferred seismic velocities of 1.5 km/sec for sediments of Holocene age, 1.8 km/sec for sediments of Pleistocene age, and 2.5 km/sec for sediments of Tertiary or Cretaceous age. Contour interval 10 m.

Base from U.S. Coast and Geodetic Survey bathymetric map  
CGCS 8808N-50, 1979  
Not to be used for navigational purposes

**CORRELATION OF MAP UNITS**

Qm	Qb	QUATERNARY
Qob		
Unconformity (ru)	Holocene	QUATERNARY
Qf		
Unconformity (tu)		QUATERNARY
Qd	Pleistocene	
Unconformity		PRE-QUATERNARY
Tcp	Tertiary and Upper Cretaceous	
Unconformity		PRE-QUATERNARY
Pz	Triassic to Precambrian	

- DESCRIPTION OF MAP UNITS**
- Qb** Beach deposits (Holocene)—Mostly sand, some gravely sand, and minor amounts of gravel. Scattered shells and shell fragments. Bedding mostly flat, locally foreset bedded. Grades offshore into silt and clay (deep water marine deposits). Generally less than 2 m thick. Overlies the transgressive unconformity (tu).
  - Qm** Deep water marine deposits (Holocene)—Mostly silt and clay, some sand. Scattered shells and shell fragments. Bedding flat and continuous. Grades onshore into sand (beach deposits). Generally less than 12 m thick. Conformably overlies deposits of Pleistocene age in deepest part of the bay. Elsewhere overlies the transgressive unconformity (tu).
  - Qob** Older beach or bar deposits (Holocene)—Mostly sand, some gravely sand, and minor amounts of gravel. Scattered shells and shell fragments. Bedding mostly flat, locally foreset bedded. Generally less than 4 m thick. Overlies the transgressive unconformity (tu).
  - Qf** Fluvial and estuarine deposits (Holocene)—Composed of fluvial sand and gravel, estuarine sand and mud, and freshwater and saltwater peat. Flat and foreset bedded. Generally less than 10 m thick. Underlies the transgressive unconformity (tu) and overlies the regressive unconformity (ru).
  - Qd** Glaciolacustrine, glaciomarine, and marine deposits, undifferentiated (Pleistocene)—Glaciolacustrine deposits mostly gravely sand. Includes scattered boulders, gravel, sand, and mud. May include till. Acoustically characterized by short irregular internal reflectors and locally by rhythmic acoustically laminations and parabolic reflectors. Probably planar and cross bedded. Glaciomarine deposits mostly mud, includes some sand and gravel. Rhythmically laminated to thin bedded. Marine deposits mostly sand, but probably includes some sand and gravel. Locally characterized by reflectors that resemble delta foreset beds. Up to about 100 m thick. They underlie the transgressive (tu) and regressive (ru) unconformities and overlie bedrock and locally coastal plain deposits.
  - Tcp** Coastal plain deposits (Tertiary and Upper Cretaceous)—Inferred to be unconsolidated to consolidated gravel to clay similar to deposits that crop out to the west of the bay and on Martha's Vineyard. Up to about 100 m thick. Occur as isolated erosional remnants beneath the deposits of Quaternary age. Overlies bedrock.
  - Pz** Bedrock (Triassic to Precambrian [Proterozoic])—igneous, metamorphic, and consolidated sedimentary rock.
- Contact—Dashed where approximately located

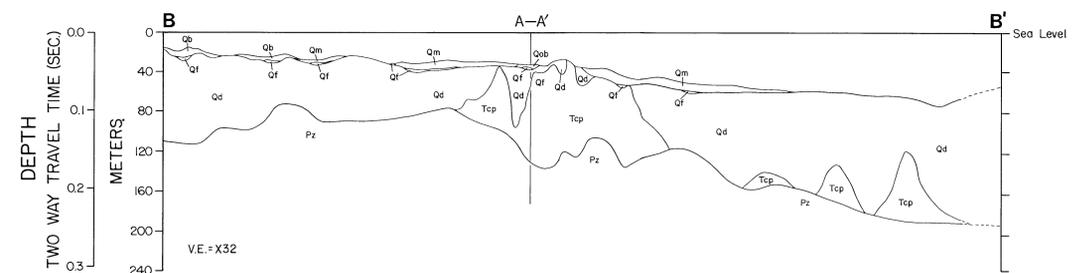
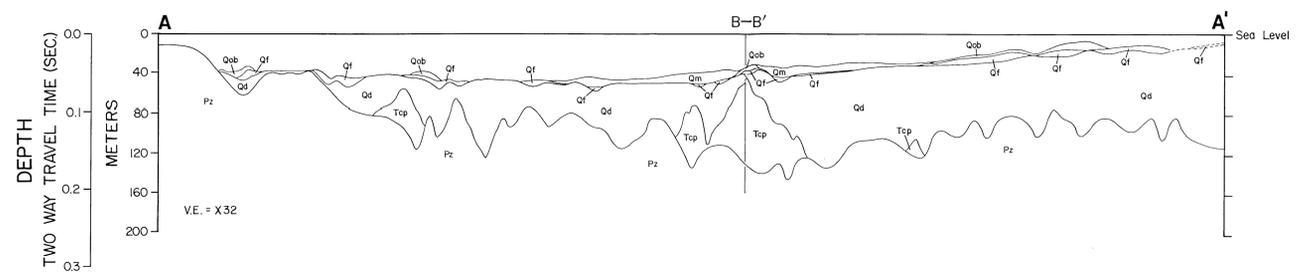
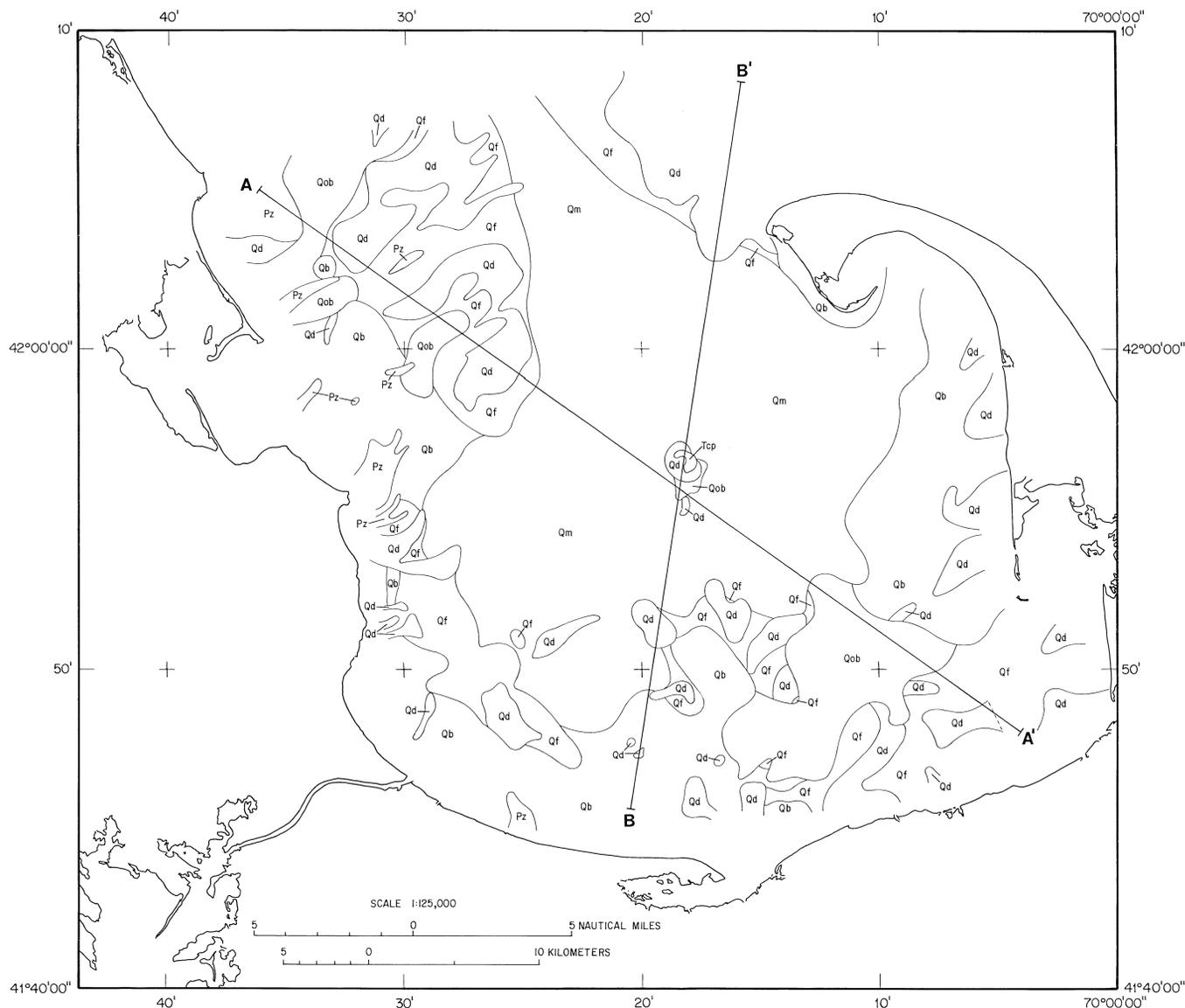


Figure 12.—Geologic map of Cape Cod Bay. Deposits of Holocene age too thin to be resolved in the seismic data may overlie pre-Holocene deposits in places.

MAPS SHOWING THE GEOLOGY OF THE INNER CONTINENTAL SHELF, CAPE COD BAY, MASSACHUSETTS

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