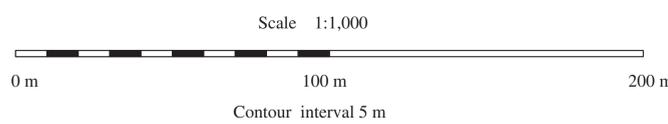
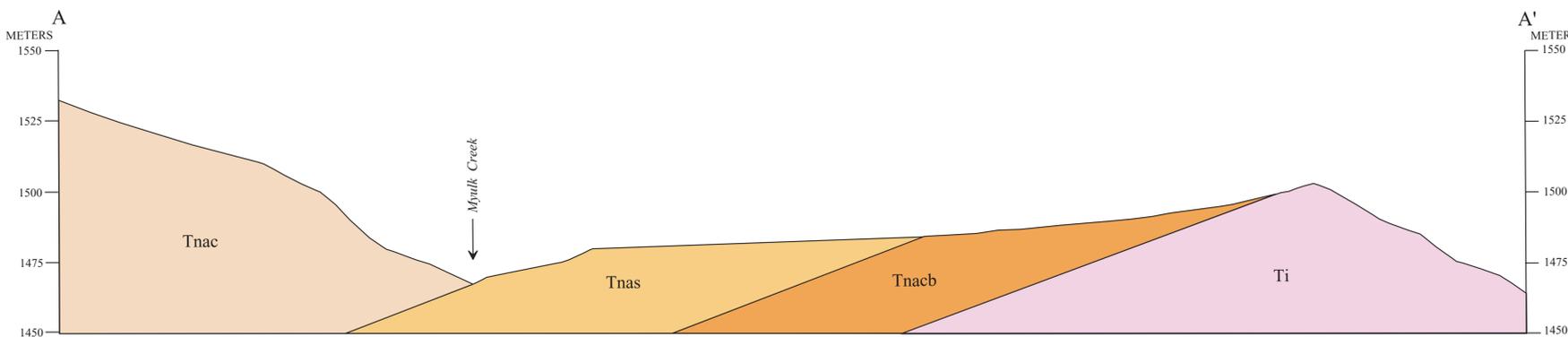


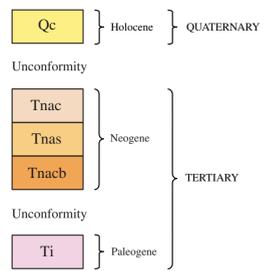
Base from Tarayan (1942).
Original contour interval 5 m.
Based on a Geographic Positioning System (GPS) reading,
lat 39°01'20" N. and long 46°12'15" E. lie within the
Nor Arevik coal site.
Digitized by Gourgen Malkhassian.



Mapped by Edward A. Johnson, Artur Martirosyan,
and Brenda S. Pierce, June 1999. Modified from
Tarayan (1942) and Drobotova and Saponjian (1996).
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CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Qc** **Holocene deposits**—Gravel, sand, silt, and clay. As thick as 30 m
- Nor Arevik Deposit (Neogene)**—A terrestrial deposit divisible into three distinct units: in ascending order, coal bearing, sandstone, and conglomerate. The upper two units are commonly missing. Deposit covers only 2.75 km² at the Nor Arevik coal site. Considered Miocene, or early or middle Pliocene in age by previous workers; generalized in our report as Neogene. As thick as 475 m
- Tnac** **Conglomerate unit**—Clast-supported conglomerate containing subangular to subrounded, pebbles to boulders of various intrusive igneous rocks. Weathers light brown to bluish gray. Includes some lenticular interbeds of medium-grained to very coarse grained sandstone. Erosional contact with underlying unit. As thick as 400 m
- Tnas** **Sandstone unit**—Poorly sorted, very fine to very coarse grained sandstone consisting of subangular to subrounded grains of quartz and lithic fragments. Weathers light brown. Includes some lenticular bodies of matrix-supported conglomerate similar in composition to the overlying conglomerate unit. Conformable contact with underlying unit. Unit ranges from 5 to 48 m thick
- Tnacb** **Coal-bearing unit**—Mostly mudstone, combustible shale, and coal. Mudstone is carbonaceous and weathers dark gray; ironstone concretions are rare. Combustible shale is fissile and weathers dark brown; bed thickness ranges from 5 cm to 3.3 m and fossil plant debris are common. Coal is subbituminous and occurs in two zones in upper one-third of unit; coal bed thickness ranges from 2 cm to 1.6 m. Very thin to thin beds of siltstone are common throughout unit, and very thin beds of very fine grained sandstone are rare in lower part of unit. Light-yellowish-brown-weathering, thin-bedded, argillaceous limestone occurs locally in upper one-third of unit; plant and mollusk fossils are common. A basal conglomerate 19 m thick fills a erosional depression in underlying igneous rock at one location. Ranges from 10 to 25 m thick
- Ti** **Intrusive rocks (Paleogene)**—Various acidic to basic intrusive igneous rocks; granodiorite predominates
- Contact**—Approximately located
- Strike and dip of bedding**
- Strike of bedding**—Showing dip direction
- Mine**—Includes trenches T - 3 and T - 8
- Drill hole**—Drilled by Drobotova and Saponjian, between 1993 and 1996
- Trench**—Cut by Drobotova and Saponjian, between 1993 and 1996
- Shaft**—Dug by Drobotova and Saponjian, between 1993 and 1996
- Building**
- Stream**
- Survey point**—Elevation in meters
- Line of cross section**

GEOLOGIC MAP OF THE NOR AREVIK COAL SITE, SOUTHERN ARMENIA

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