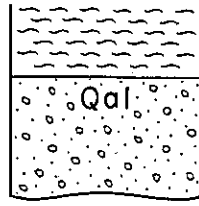
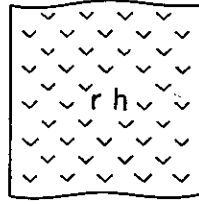
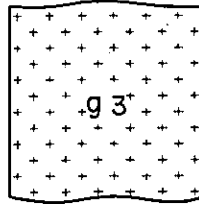
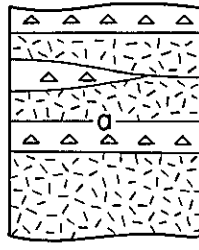
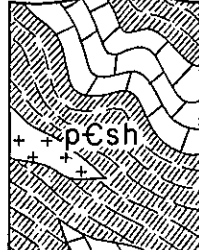
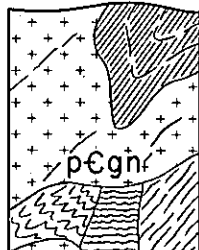


GEOLOGIC COLUMN AND UNIT DESCRIPTION

AGE	ROCK UNIT	LITHOLOGY; THICKNESS WHERE KNOWN	UNIT DESCRIPTION	ECONOMIC VALUE
QUATERNARY	Alluvium	 Secondary loess, sand and gravel; thickness less than 20 meters	Alluvium, consisting chiefly of secondary loess intercalated with sand and gravel, is distributed along rivers and in deltas and piedmont fans. The shoreline of eastern Shantung is characterized by a great array of sand bars, bay deltas and tombolos; this topography indicates a youthful to submature stage of submergence. The peneplained hilly land composed of the Taishan complex (pCgn) is covered with residual soils, occasionally with piedmont talus deposits.	<p>Gold</p> <p>Old gold mines are known near Kuei-Shan (桂山) and around Chin-niu Shan (金牛山) south of Shui-tao-chi (水道集) in Mou-p'ing Hsien.</p> <p>The district of Kuei Shan consists of granite gneiss. Placer gold deposits were intermittently worked by native Chinese since the Ming dynasty (1368-1644). A gold rush was reported around 1892 when more than 10 thousand gold diggers poured into the district. When the gold rush waned, they began to exploit gold-quartz veins but the business ended in failure.</p> <p>In the Chin-niu-shan district, gold-quartz veins occur in the Cretaceous granite region. A Chinese had invested to open a gold mine, and in 1902 a Sino-German Company made test drillings and one or two shafts were opened at Shui-tao-chi, but the operation was suspended after a short-time.</p> <p>Hot spring</p> <p>The Chi-li-t'ang (七里湯) spring is situated about 4 km south-southwest of Wen-teng (文登). Several spouts are known there.</p> <p>The Lung-ch'uan-t'ang (龍泉湯) spring lies about 17 km east of Mou-p'ing. The temperature of the spring water is reported to be 40°C.</p>
	UNCONFORMITY		 Cretaceous rhyolite	
MESOZOIC	INTRUSIVE CONTACT		 Cretaceous granite	Cretaceous granite consists chiefly of biotite granite which looks quite fresh occasionally showing a porphyroidal structure. It intrudes the Taishan complex and the Jurassic andesite. Where it is accompanied by aplitic and porphyritic dikes, the granite forms high serrate ridges.
	INTRUSIVE CONTACT		 Jurassic andesite	Jurassic andesite is flows of porphyroid trachyandesite accompanied by breccia, and is cut by important dikes of very siliceous rhyolite and alkaline syenite (the Maanshan syenite, Kieh YANG and K. T. CHEN, 1936).
	EFFUSIVE CONTACT		 Wutai system	The Wutai system consists of biotite-muscovite schist, hornblende schist, crystalline limestone and dolomite, with some graphite schist and talc-hornblende schist. In places it is intruded by granite gneiss.
PRECAMBRIAN	RELATION UNKNOWN		 Taishan complex	The Taishan complex consists of granite gneiss and mica gneiss, associated with other gneisses of unknown origin and character. It is usually intruded by granite, pegmatite and dioritic rocks. The complex also contains various kinds of schist.
	(Column not drawn to scale)			

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