GEOLOGIC COLUMN AND UNIT DESCRIPTION

AGE	ROCK UNIT	LITHOLOGY; THICKNESS WHERE KNOWN	UNIT DESCRPTION
QUATERNARY	Alluvium	Sand, clay and gravel; less than 15 meters thick	Alluvium, consisting of sand, clay and gravel, is distributed in the drainage basin of the Argun River which locally forms narrow gorges. The thickness is less than 15 m.
TERTIARY	Neogene(?) basalt	-UNCONFORMITY	The Neogene(?) basalt, locally associated with Pleistocene basalt, is exposed chiefly in the U.S.S.R. Soviet geologists (NALIVKIN, 1955) assigned a Quaternary age to the basalt.
	VVVVVVV EFFUSIVE CONTACTVVVVVVV		
MESOZOIC	Lower Cretaceous formation	Conglomerate, sandstone, shale and tuff; thick-ness unknown	The Lower Cretaceous formation, consisting of conglomerate, sandstone, shale and tuff, is known only in the U.S.S.R.
	~~~~~UNCONFORMITY~~~~~		
	Middle-Lower Jurassic formation	Sandstone, shale, conglomerate and coal; thickness unknown	The Jurassic formation, ranging from Middle to Lower Jurassic in age, consists of sandstone, shale, conglomerate and coal. It is exposed in the hills west of Chashchino-ll'dikan. Few data are available.
	~~~~~UNCONFORMITY~~~~~		
	Pre-Jurassic granite	Biotite granite, two-mica granite and aplite	The pre-Jurassic granite in the Manchurian side consists chiefly of coarse-grained biotite granite containing light pinkish orthoclase phenocrysts. Locally the rock is two-mica granite associated with fine-grained aplite. Gold-bearing quartz veins occur in the granite on a hill 14 km south-southeast of Chi-la-lin [吉拉林]. The granite in the U.S.S.R. was defined by the Soviet geologists as Paleozoic acid intrusives including granite, granodiorite and quartz diorite. Several economically valuable gold-bearing quartz veins occur in the granite of the Soviet side, although few data are available.
	//////NTRUSIVE CONTACT//////		
PAIEOZOIC	Middle Paleozoic formation	Limestone and phyllitic slate; thickness unknown	The Middle Paleozoic formation exposed on a hill 7 to 8 km southwest of Chi-la-lin consists of light brown limestone in the upper part and phyllitic slate with limestone in the lower part. The limestone was calcined for lime. The formation strikes N, dips 25° - 30° E, resting unconformably on the Precambrian(?) gneiss. It is probably correlated with the Ordovician and Silurian formation on the opposite bank of the Argun River, on the basis of distribution and lithology, although no fossils have been reported.
	~~~~~UNCONFORMITY~~~~~		
PRECAMERIAN(?)	Precambrian(?) granite gneiss	Biotite orthogneiss, biotite schist and augengneiss	The Precambrian(?) granite gneiss along the Argun River consists chiefly of biotite orthogneiss locally associated with biotite schist or two-mica schist. It is unconformably overlain by the Middle Paleozoic formation and by the Neogene basalt. The schistosity strikes N 35° - 40° E and dips 66° - 70° NW. Augengneiss containing light pinkish large phenocrysts of feldspar is found 5 km of southwest Chi-la-lin. The granite gneiss stretches in a north-northeast direction, parallel to tectonic lines passing through Ivanovka and Berezovka, and to the Precambrian formation in the U.S.S.R., which probably consists of gneissose rocks, as it is accompanied by several promising gold-bearing quartz veins.
	( Cc	olumn not drawn ) to scale	

## REFERENCES

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