

**PETROGRAPHIC STUDIES CARRIED OUT ON SAMPLES COLLECTED FROM BEDROCK IN  
DHAVALAPUR BLOCK, NAGPUR DISTRICT, MAHARASHTRA**

Sl. No.	Sample Number	Texture	Mineral Composition			Description
			Major >5%	Minor <5%->1%	Accessory <1%	
1	DP/PT/01	It is a medium to coarse grained rock showing granular texture.	Quartz	Biotite Sericite Muscovite	Ferruginous matter  Zircon	Quartz occurs as medium to coarse anhedral grains showing compact contacts. Biotite is present as fine to very fine disseminated flakes. Sericite is present as very fine flaky aggregates, mostly intruding as fillings. Muscovite occurs as fine to very fine flakes in association with biotite. Ferruginous matter is seen present as reddish fillings and also seen oozing out from biotite, at places. Zircon is noted as very fine grains in accessories.  The specimen is a <b><u>Quartzite.</u></b>
2	DP/PT/02	It is a grey coloured medium grained rock showing granular texture. It reacts slowly with cold and dilute HCl.	Dolomite	Tremolite Opaques Talc	Antigorite	The specimen is composed of medium to fine subhedral to anhedral dolomitic aggregates showing compact contacts, sugary texture and diachroism, at places. Tremolite is present as fine flaky/ platy grains associating antigorite patches. Opaques are noted as very fine disseminated grains. Talc is seen present as very fine to fine flakes and flaky aggregates in pockets.  The specimen is a <b><u>Dolomitic marble.</u></b>

3	DP/PT/03	It is a medium grained rock showing gneissosity.	Quartz Biotite Orthoclase Garnet	Sillimanite Kaolinite	Opakes	<p>Quartz and orthoclase are present as medium anhedral and lensoidal grains showing crude alignment. Biotite occurs as fine disseminated flakes showing parallel alignment. Garnet occurs as subrounded porphyroblasts showing inclusions of very fine quartz. Sillimanite occurs as fine fibrous aggregates altering to kaolinite and showing parallel alignment. Opakes are noted as fine to very fine grains in accessories.</p> <p>The specimen is a <b><u>Khondalite.</u></b></p>
4	DP/PT/04	It is a fine to medium grained rock showing granular texture. It reacts instantly with cold and dilute HCl.	Calcite Antigorite	Garnet Epidote/ Zoisite Opakes	Talc Tremolite	<p>Calcite occurs as fine to medium subhedral to anhedral grains. Antigorite is present as fine to medium disseminated patches, often segregated in pockets. Garnet occurs as fine subrounded grains in association with antigorite. Epidote/ zoisite are present as fine anhedral to subhedral grains. Opakes occur as very fine to fine disseminated grains. Talc is seen present as very fine to fine flakes and flaky aggregates in pockets. Tremolite is noted as fine prismatic grains in association with antigorite.</p> <p>The specimen is a <b><u>calcite-antigorite rich rock/ altered meta-calc silicate.</u></b></p>

5	DP/PT/05	It is a medium to coarse grained rock showing gneissosity.	Microcline/ Orthoclase  Quartz  Plagioclase  Muscovite  Biotite	Sericite	Chlorite  Opaques	<p>Microcline/ orthoclase and plagioclase are present as medium to coarse subhedral grains, where plagioclase is showing moderate sericitisation and myrmekitic intergrowths in areas. Quartz occurs as medium anhedral grains showing crude alignment. Muscovite and biotite are present as fine disseminated flakes showing parallel alignment. Sericite is present as very fine flaky aggregates, developing after plagioclase alterations. Chlorite occurs as fine flakes seen replacing biotite. Opaques are noted as very fine specks and anhedral grains in accessories.</p> <p>The specimen is a <b><u>Granite gneiss.</u></b></p>
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