**Statement showing Petrographic studies of bed rock samples, Kudrekonda Block, Davanagere District, Karnataka**

**KUDREKONDA G3 BLOCK**

**PETROGRAPHIC STUDY RESULTS**

| **Sl. No.** | **Sample**  **Number & Location** | **Texture** | **Mineral Composition** | | | **Description** |
| --- | --- | --- | --- | --- | --- | --- |
| **Major**  **>5%** | **Minor**  **<5%->1%** | **Accessory**  **<1%** |
| 1 | MKK/P1  (X=557528, Y=1563089) | It is a fine grained rock showing granular texture. | Quartz | Fuchsite/ Muscovite | Opaques  Ferruginous matter | The specimen is mostly composed of quartz, occurring as fine to very fine subhedral grains showing very tight quartzitic texture. As per visual eye estimate, the quartz content in the specimen is around 95%. Quartz present as coarse lensoidal porphyro-clasts comprising medium to moderately coarse grains. Fuchsite/ muscovite are present as very fine flaky aggregates showing crude alignment and often seen present as along periphery of lensoidal quartz porphyro-clasts. Opaques are noted as fine to very fine subhedral to anhedral grains in accessories. Reddish ferruginous fillings are often seen associated with fuchsite/ muscovite aggregates.  The specimen is a **quartzite.** |
| 2 | MKK/P2  (X=556808, Y=1564380) | It is a very fine grained rock showing schistosity and phyllitic sheen. | Sericite  Chlorite  Quartz | Clay minerals | …. | Sericite occurs as very fine flaky aggregates, segregating into thin to moderately thick bands and showing parallel alignment and micro-crenulation. Chlorite is present as very fine flaky aggregates showing parallel alignment. Quartz occurs as very fine anhedral grains, often clustering in lensoidal pockets. Very fine dirty clayey fillings are seen present along the foliation.  The specimen is a **sericite-chlorite-quartz schist/ phyllite.** |
| 3 | MKK/P3  (X=558130, Y=1563176) | It is a greenish grey coloured fine grained rock showing schistosity.  It reacts instantly with cold and dilute HCl. | Quartz  Chlorite  Calcite | Opaques (Magnetite) | Ferruginous matter | Quartz occurs as fine to very fine anhedral grains, often clustering in lensoidal pockets. Chlorite occurs as fine flaky aggregates showing parallel alignment. Calcite is present as fine to medium subhedral to anhedral grains and patches in dissemination. Opaques (magnetite) are seen present as fine subhedral to euhedral disseminated grains showing association with chlorite. Reddish ferruginous fillings and patches are noted in areas, mostly in association with calcite. The specimen is showing feeble magnetism.  The specimen is a **quartz-chlorite-calcite schist.** |
| 4 | MKK/P4 | It is a very fine grained rock showing schistosity and phyllitic sheen. | Quartz  Sericite | …. | Clay minerals  Opaques | Quartz occurs as very fine grains and as lensoidal clusters showing parallel alignment. Sericite is present as very fine flaky segregations showing parallel alignment and micro-crenulations. Very fine dirty clayey fillings are noted along the foliation. Opaques are noted as very fine specks in accessories.  The specimen is a **quartz-sericite schist/ phyllite.** |
| 5 | MKK/P5 | It is a medium to fine grained rock showing granular texture, pores and cavities. | Quartz  Chlorite | Clay minerals | Opaques | Quartz occurs as medium to fine anhedral grains showing tight sutured contacts, undulose extinction and evidence of recrystallization. Chlorite has intruded as thin to moderately thick fracture fillings, comprising very fine micro-crystalline flaky aggregates. Very fine clay minerals are seen intruded along pores and cavities. Opaques are noted as very fine specks in accessories.  The specimen is a **quartzite with chlorite fillings.** |