The Department of Geology was part of the Industries Department for several decades. The Department formed a separate entity in May 1946 with a strength of 7 technical personnel. An expansion took place in 1961 when two Circle Offices started functioning at Ernakulam and Kozhikode. The Department was reorganized in 1970 and was named as the Department of Mining and Geology (GO(P)No.93/70/ID dated 13.3.70). In a major re-organisation in 1975, four Regional Offices were set up at Alappuzha, Thrissur (this functioned at Ernakulam), Kozhikode and Kannur. The two Circle Offices at Kozhikode and Ernakulam were abolished.

The Kerala Mineral Exploration and Development (KMED) Project with the Director of Mining and Geology as Ex-Officio Project Director was established with UN assistance in April, 1977 for carrying out detailed exploration programmes. The staff required for the Project were deputed from this Department. The acute dearth of staff by re-deployment of staff during creation of KMED Project was alleviated by strengthening the Department in 1980 by establishing 3 District Offices one each at Thiruvananthapuram, Kollam and Palakkad. Another District Office was created and started functioning at Kasaragod in 1987. A Special Office at Cherthala was also established in 1990 to estimate the reserves of Silica Sand in the leased out and free-hold lands in Cherthala taluk, to issue movement permits to remove the minerals and to curb illicit mining and clandestine movement of silica sand and to take legal action against offenders. Two teams of squads known as Kerala Mineral Squad (KMS), Southern Region and KMS, (Northern Region) were formed in 1985 and 1990 respectively by deployment of the existing staff in the Exploration and Prospecting Division of this department. Six new District Offices were opened in Kottayam, Pathanamthitta, Idukki, Thrissur, Malappuram and Wayanad covering the then existing four Regional Offices at Ernakulam, Alappuzha, Kozhikode and Kannur (GO(MS)119/97/ID dated 28.7.97) during the year 1997.

In short at present this Department has in its fold 14 District Offices and 3 Kerala Mineral Squads. The Department has 58 geologists and 4 chemists for mineral exploration as well as mineral administration activities.
The Department of Mining and Geology has two divisions: the Exploratory and Prospecting Division and the Mineral Development and Mining Leases Division. The Exploratory and Prospecting Division is involved in mineral exploration to find new economic deposits, assess reserves, and support industries using minerals. The Mining Leases Division oversees the granting of mineral leases and quarrying permits, inspects mines and quarries, and investigates illegal activities. The department also operates a well-equipped laboratory for mineral testing and has a GIS lab for geological analysis. The headquarters is located in Thiruvananthapuram, approximately 7 km from the central railway station and bus stand, and 10 km from the airport.