

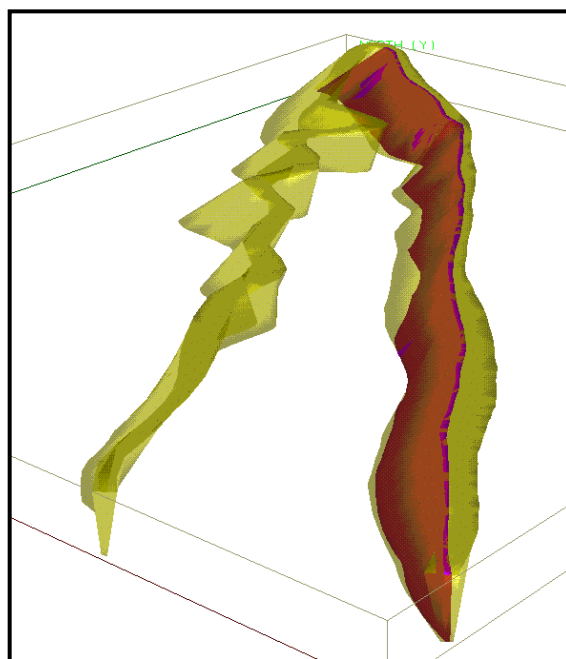
# **EXPLORATION REPORT FOR GOLD**

## **CHINMULGUND AREA**

### **SHIMOGA SCHIST BELT**

#### **HAVERI DISTRICT, KARNATAKA**

##### **EXECUTIVE SUMMARY**



**MINERAL EXPLORATION CORPORATION LIMITED**

**(A Government of India Enterprise)**

**SEMINARY HILLS**

**NAGPUR - 440006**

**APRIL - 2003**

# **GEOLOGICAL REPORT ON EXPLORATION FOR GOLD CHINMULGUND AREA, HAVERI DISTRICT, KARNATAKA**

## **EXECUTIVE SUMMARY**

### **1.0 LOCATION**

The area is located 22 km north of Hirekerur taluk (Latitude  $14^{\circ} 33' 47''$  and  $14^{\circ} 35' 24''$ ; Longitude  $75^{\circ} 23' 45''$  and  $75^{\circ} 25' 13''$ ) in Haveri district, Karnataka. The area falls in Survey of India Toposheet No. 48 N/6. The block can be approached easily from Motebennur located on the national highway NH-4 at about 322 km from Bangalore towards Pune via Byadagi through 15 km metal road. The nearest railway station is at Byadagi on Hubli-Bangalore Broad Gauge section of South Central Railway. Belgaum is the nearest Airstrip located at about 200 km.

### **2.0 GEOLOGY AND STRUCTURE**

The area around Chinmulgund represents Archean Supracrustal rocks belonging to Dharwar Super Group, which forms northern part of Shimoga schist belt containing Chitradurga group of formations. The major rock types present in the area are: Banded Magnetite Quartzite (BMQ), Quartz-Chlorite-Biotite-Schist, Argillite Greywacke, Quartz veins with tuffaceous horizons, quartz – chlorite schist / phyllite / sericite chlorite schist / phyllite, mica-schist etc. The general trend of the formations is NNW-SSE with westerly dip of  $30^{\circ}$  –  $60^{\circ}$ . The rocks have undergone amphibolite facies of metamorphism. The area under investigation forms a part of the western limb of southerly plunging regional anticlinal structure.

The auriferous BMQ bands cover a cumulative strike length of 3500 m with a width of 8.50 m commencing from a fold, the closure of which occurs in a pond in NW part of Chinmulgund village have a general trend of NNW-SSE to NNE-SSW with westerly dips of  $30^{\circ}$ - $60^{\circ}$ .

The rocks of the area have undergone three phases of deformation (F1, F2, F3) as evidenced by major and minor structures.

### **3.0 MINERALISATION**

Gold mineralisation in the area is confined to Banded Magnetite Quartzite (BMQ) formation. Out of three major and one minor band present in the area, EBB is the most promising band hosting gold mineralisation.

Gold mineralisation is associated with 1) Sulphide facies of BMQ and 2) Sulphides associated quartz – carbonate minerals. In BMQ, sulphides occur along bedding plane at the contact of chert and magnetite layers. The important sulphide minerals are: pyrrhotite, pyrite, arsenopyrite and occasionally chalcopyrite in the order of gold association. Lode is constituted on sheared BMQ with quartz – carbonate permeations + dirty iron / carbonate inclusions + sulphides in the mineralized zone varying from 1 to 3% with a maximum of 25% occasionally. The width of the mineralized zone varies from 0.50 m to 6.52 m in case of EBB.

#### **4.0 QUANTUM OF WORK DONE**

MECL has carried out detailed Geological Mapping & topographical survey covering 2.0 Sq.km. area. 11138.85 Mtrs of drilling in 40 boreholes, 457.75 Cu.m of Exploratory mining, 1580 NO of Geophysical survey Magnetic Stn. Points, 4284 Nos number of primary and check samples, 21 Nos of composite samples for Fire Assay of Gold & 54 NO. of composite samples for other minor and trace elements. 12 number of whole rock analysis (15 Radicals), 75 number of composite samples for spectroscopic studies (10 elements), 21NO of samples for XRD studies, Petrographic studies on 91 Nos. of samples and Minerographic studies on 81 Nos of samples and 90 Nos of specific gravity determination 91 number of thin section studies, 81 No of polished section test and 2 No of Beneficiation Studies (IBM LABS) were also carried out by MECL in the Block. Based on the above data and earlier data of GSI, an exploration report was submitted by MECL.

#### **5.0 ORE RESERVE ESTIMATION**

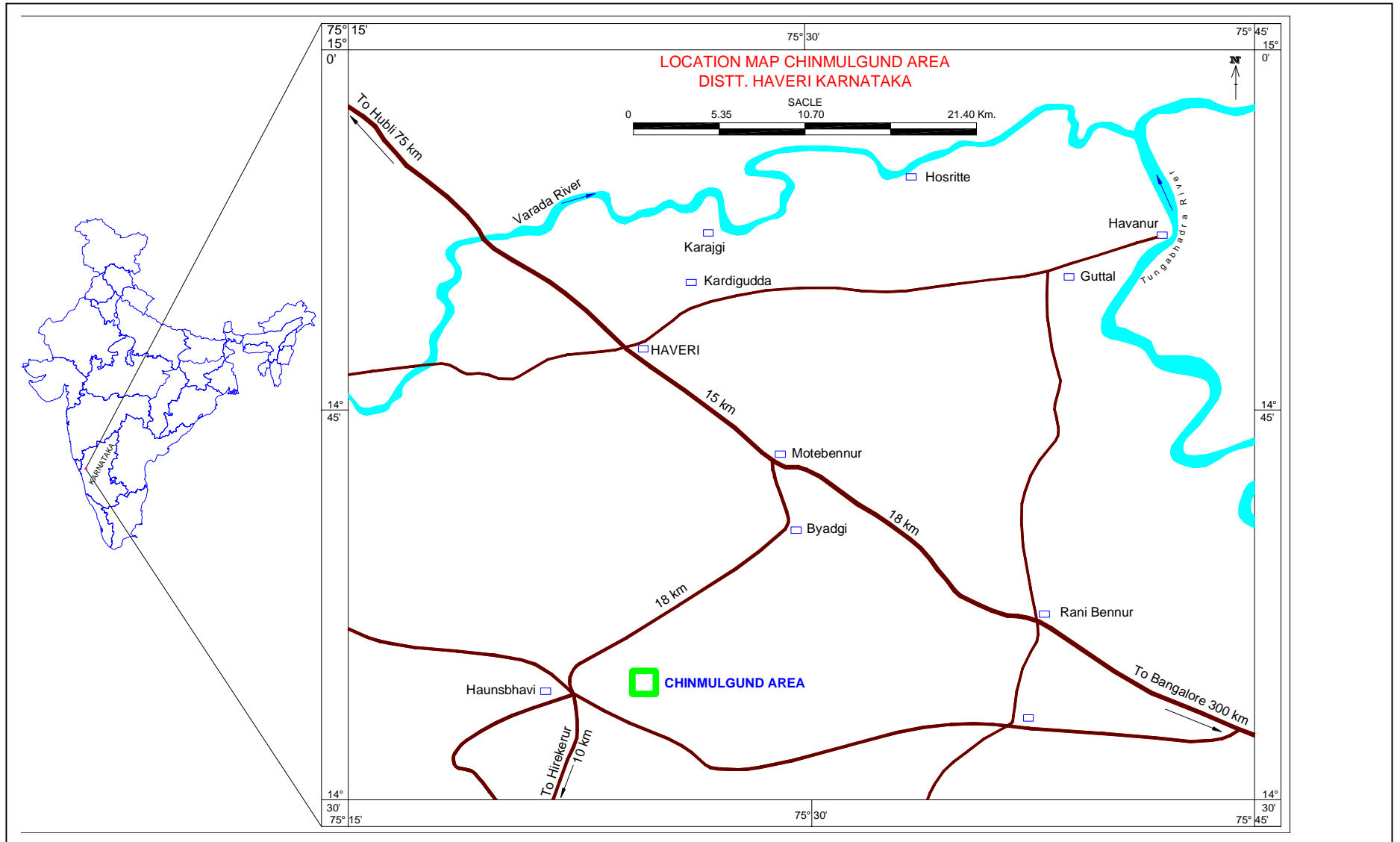
MECL have already proved successfully a total of 1.36 m.t. of gold ore reserves between 500-350 mRL, averaging 4.50-g/t gold in these horizons in Chinmulgund Block (Phase-I). On a similar analogy the neighbouring 'Reserve Forest Block' may hold a sizeable and potential gold deposit, which merits exploration.

**The Deposit has been classified as Category 'C' of UNFC 332.**

The studies on the baseline data of Environmental studies covering land use / land cover pattern studies have been carried out in the block.

**The Total Cost of Exploration is Rs. 538.16 Lakhs.**

# LOCATION MAP OF CHINMULGUND AREA



# TOPOGRAPHICAL & GEOLOGICAL MAP

