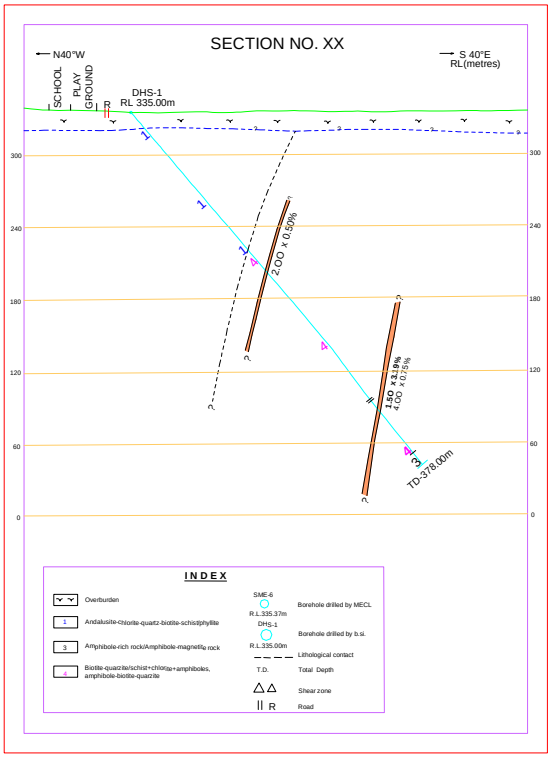
GEOLOGICAL REPORT ON EXPLORATION FOR COPPER

SINGHANA EXTENSION BLOCK (PHASE-II)

DISTRICT - JHUNJHUNU, RAJASTHAN

EXECUTIVE SUMMARY



MINERAL EXPLORATION CORPORATION LIMITED
(A Government of India Enterprise)
EASTERN ZONE
RANCHI

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GEOLOGICAL REPORT ON EXPLORATION FOR COPPER ORE SINGHANA EXTENSION BLOCK (PHASE-II) DISTRICT- JHUNJHUNU, RAJASTHAN.

EXECUTIVE SUMMARY

1.0 LOCATION

Singhana Extension Block-II (28^0-05"-52" to 28^0-06"-40" ; 75^0-50'-30" to 75^0-51'-24") is situated at the northern end of the Khetri Copper Belt in the Jhunjhunu district of Rajasthan state. It lies just adjacent to the Singhana Extension block (Phase-I), which was earlier explored by MECL.

2.0 GEOLOGY AND STRUCTURE

The area is mostly covered with sand and alluvium and therefore the geology has been deciphered on the basis of sub-surface data. The rock types belong to the Alwar and Ajabgarh Groups of Delhi Super Group. The major rock types occurring in the area are massive micaceous quartzites, Andalusite-biotite-quartz schist with massive quartzite bands in between, amphibole-biotite quartzite/biotite-amphibole quartzite, amphibole quartzite, amphibole-rich rock /amphibole-mangetite rock and feldspathic quartzites. These rocks have been intruded by metabasics rock and quartz veins.

The general strike of the formations in the area is $N55^0E$-$S55^0W$ with dips varying between 70^0 to nearly vertical due northwest. At deeper levels, the reverse of dips is also observed.

3.0 MINERALISATION

The area is mostly covered with soil and as such, there is no surface manifestation of mineralisation.

Mineralisation is confined in the biotite-amphibole quartzite/ amphibole-biotite quartzites and amphibole-rich rock/ amphibole-magnetite rock.

The main sulphide minerals observed in the decreasing order of abundance are magnetite, Chalcopyrite, pyrrhotite & pyrite.

Mineralisation is mostly in the form of fine disseminations, veins and stringers.

4.0 QUANTUM OF WORK DONE

MECL has carried out detailed Geological Mapping & topographical survey covering 1.00 Sq/Km area. 3038.00 m of drilling in 4 boreholes, 500 number of primary & check samples for Cu and 135 Primary for Fire Assay (Au & Ag) and 12 number of composite samples for Au & Ag (Fire assay method), & 12 Number composite for Cu, 12 Nos.of composite samples for Emission Spectroscopy. Petrographic studies on 25 Nos.of samples and Minerographic studies on 25Nos of samples and 40 Nos of specific gravity determination test 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

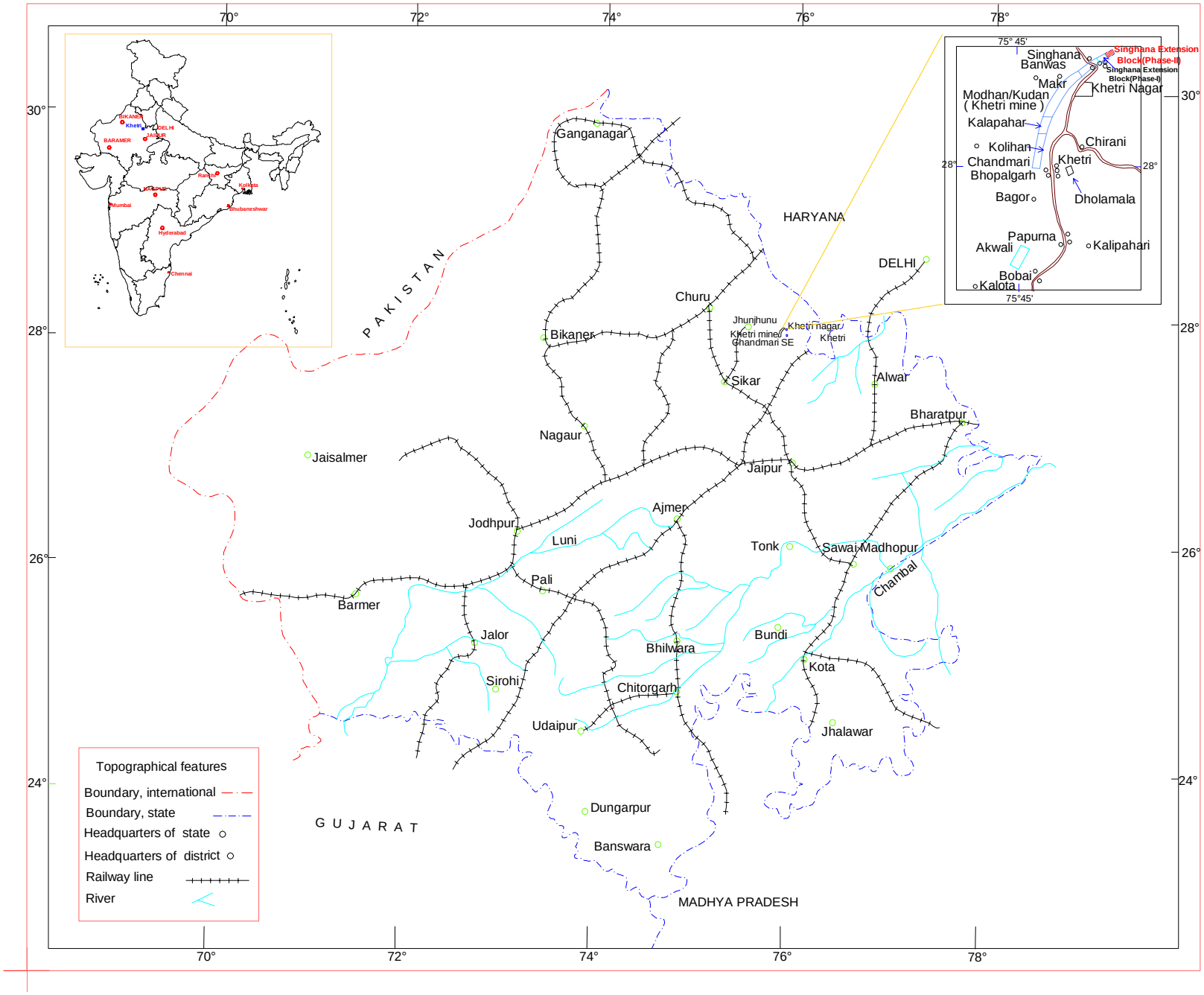
A total of 2.83 million tones of ore reserves with 0.82% Cu have been estimated in Singhana Extension block (Phase-II) over a strike length of 1.0 km. and in a vertical column of 470 m. between +290 MRL and –180 MRL. Out of the total ore reserves, 0.54 million tonnes with 0.80% Cu fall under probable category and 2.39 million tones with 0.83% Cu fall under possible category.

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

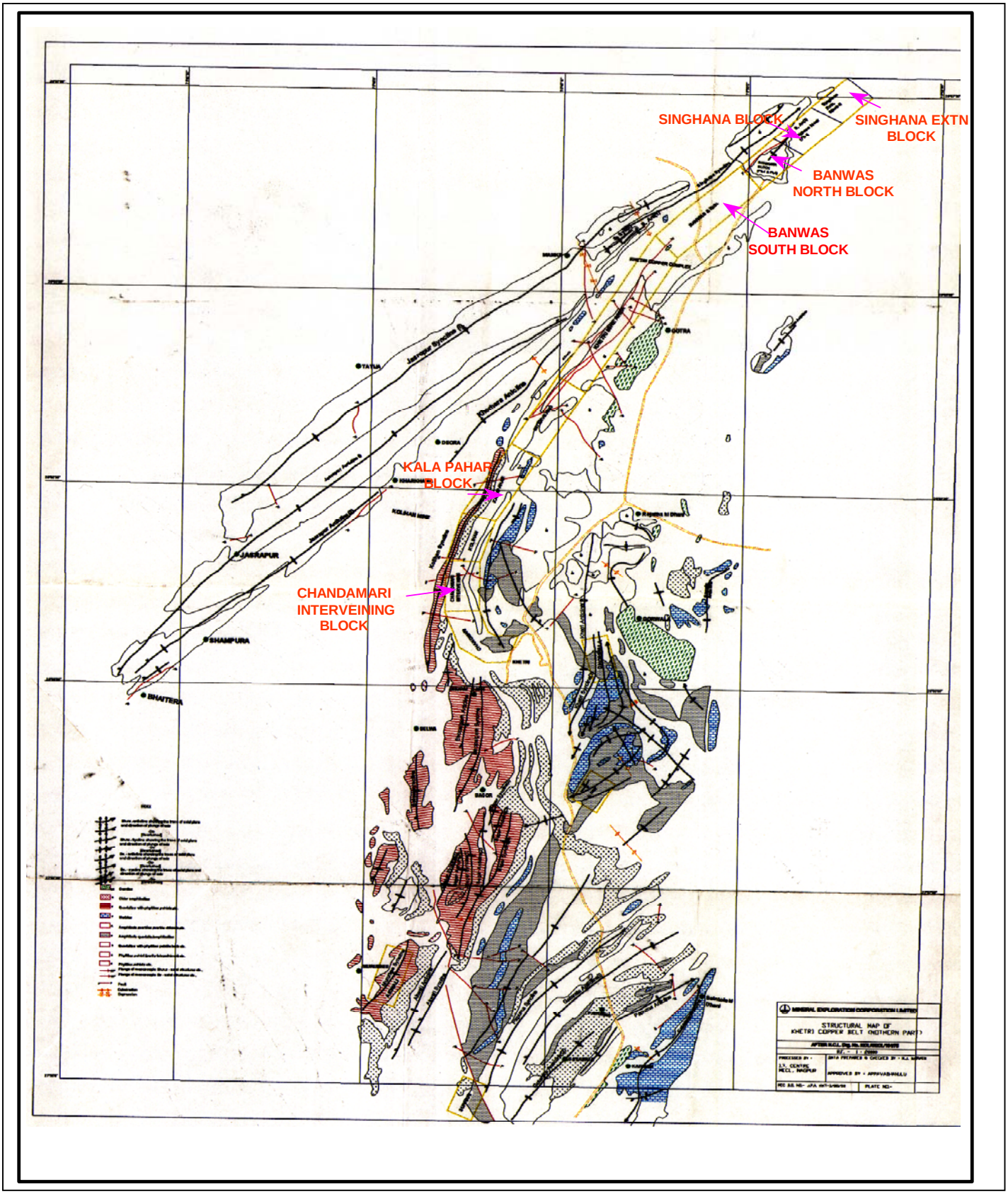
The studies on the baseline data of Environmental studies covering land use / land cover pattern studies have been carried out in the block.

The Total Cost of Exploration is Rs. 183.53 Lakhs.

LOCATION MAP OF SINGHANA EXTENSION PHASE-II BLOCK



Regional Geological Map of Khetri Copper Belt



GEOLOGICAL CROSS SECTION