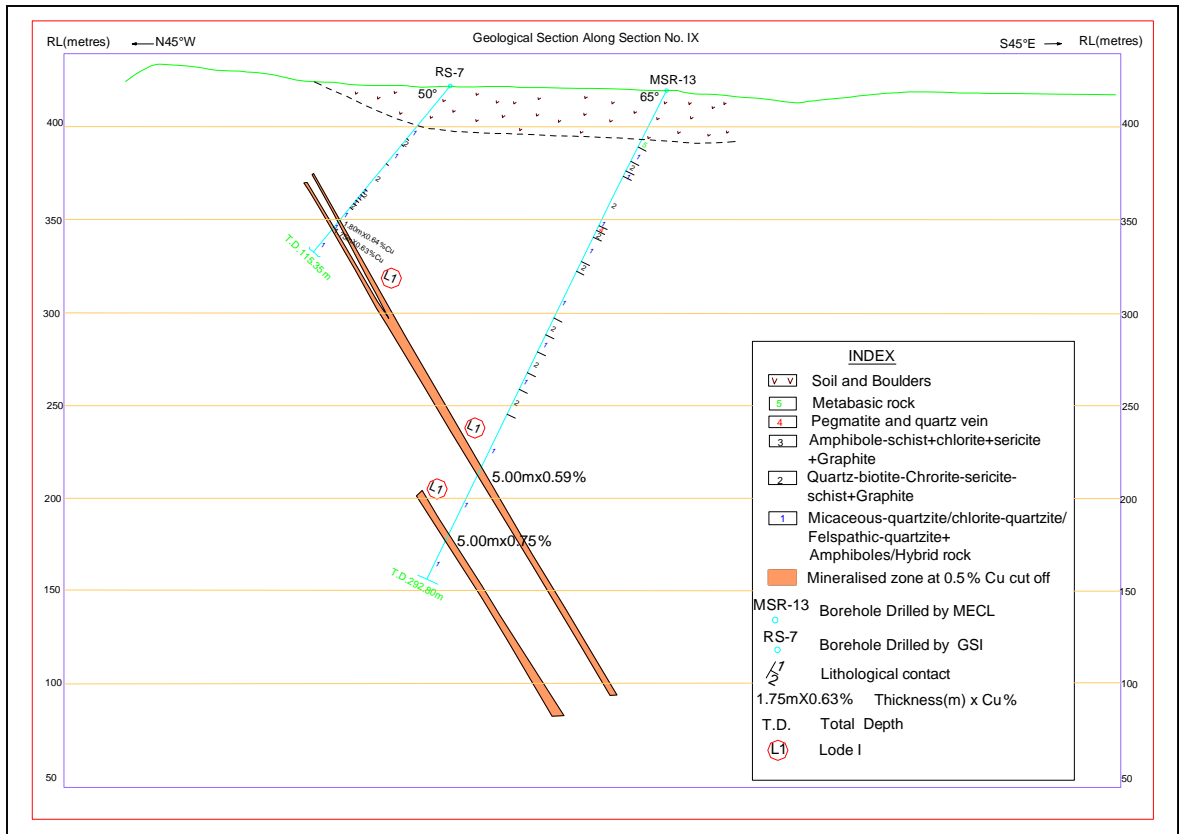


GEOLOGICAL REPORT ON DETAILED EXPLORATION FOR COPPER IN SURHARI BLOCK, DISTRICT- JHUNJHUNU, RAJASTHAN

EXECUTIVE SUMMARY



MINERAL EXPLORATION CORPORATION LIMITED
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SEMINARY HILLS
NAGPUR - 440006
JULY-1991

JAIPUR AREA, JAIPUR (RAJASTHAN)

**GEOLOGICAL REPORT ON DETAILED EXPLORATION FOR
COPPER ORE IN SURHARI BLOCK
KHETRI COPPER BELT,
DISTRICT: JHUNJHUNU, RAJASTHAN**

EXECUTIVE SUMMARY

1.0 LOCATION

The Surhari Block ($28^{\circ} 53'30'' - 28^{\circ} 53'$; $75^{\circ} 46' - 75^{\circ} 46'30''$) is situated at the southern end of north Khetri Copper Belt, in the district of Jhunjhunu Rajasthan.

2.0 GEOLOGY, STRUCTURE

The rock types exposed in Surhari block belong to the Ajabgarh Group of the Delhi super Group. The rocks comprise feldspathic quartzite, micaceous quartzite, amphibolites, amphibole biotite schist with inter bands of carbonaceous phyllites, quartz – biotite schist/quartz- chlorite sericite schist and pegmatite bands. The rock type of hybrid and brecciate nature is also common. These are intruded by metabasic rock and quartz veins. The general trend of the foliation plane in the block is $N 15^{\circ} E$ to $N 15^{\circ} W$ with southeasterly dips varying in between 55° to 65° .

The rock types have undergone deformation exhibiting micro faults and micro folding. Number of shear zones have also been observed on the surface.

3.0 MINERALISATION:

The sulphide mineralisation in Surhari block is manifested in the form of gossanised hill having brecciated zones with malachite and azurite encrustations. Old workings, numerous small mining pit worked by ancient workers are present along with heaps of mine spoil and dump.

The mineralisation is hosted by all rock types except pegmatite bands and metabasics rock. By and large, the bulk of mineralisation is found to be confined within brecciated quartzite / hybrid rock and graphite schists with amphibolites.

The copper mineralisation occurs as very fine disseminations and at place as veins and patches along fractures in sheared rocks. Chalcopyrite is the main copper ore mineral in the area. The other sulphide minerals are pyrrhotite and pyrite.

4.0 QUANTUM OF WORK DONE

MECL has carried out detailed Geological Mapping & topographical survey covering 10Sq.km. area. 437m of drilling, 1309 Nos number of primary and check samples (for copper, Fe & S), 30 Nos of composite samples for Copper and 30 Nos for Fire Assay of Au & Ag. 99 Nos. of composite samples for Spectroscopic Studies, Petrographic studies on 50 Nos.of samples and Minerographic studies on 50 Nos of samples and 100 Nos of specific gravity determination test were also carried out by MECL in the Block. Remote sensing and Environmental studies were carried out 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

The exploration scheme was planned for obtaining three levels intersection viz + 150 MRL, +250 MRL and +350 MRL of the ore body over a strike length of 900 metres and in a vertical column of 305 m. between +425 MRL and +120 MRL.

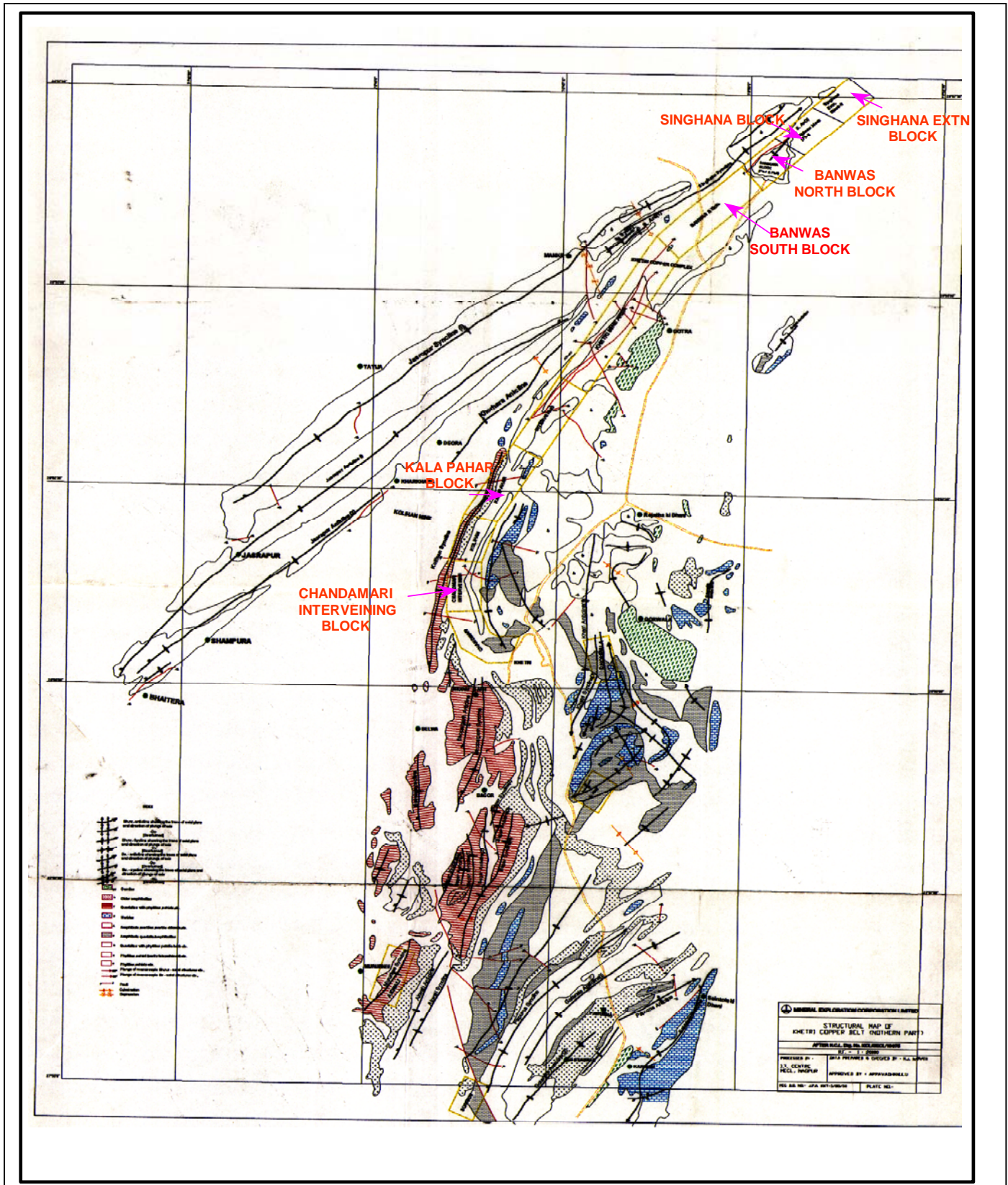
The total reserves established by MECL in Surhari block are of order of 4.96 mt. With 0.92% Cu at 0.50% Cu cut-off.

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

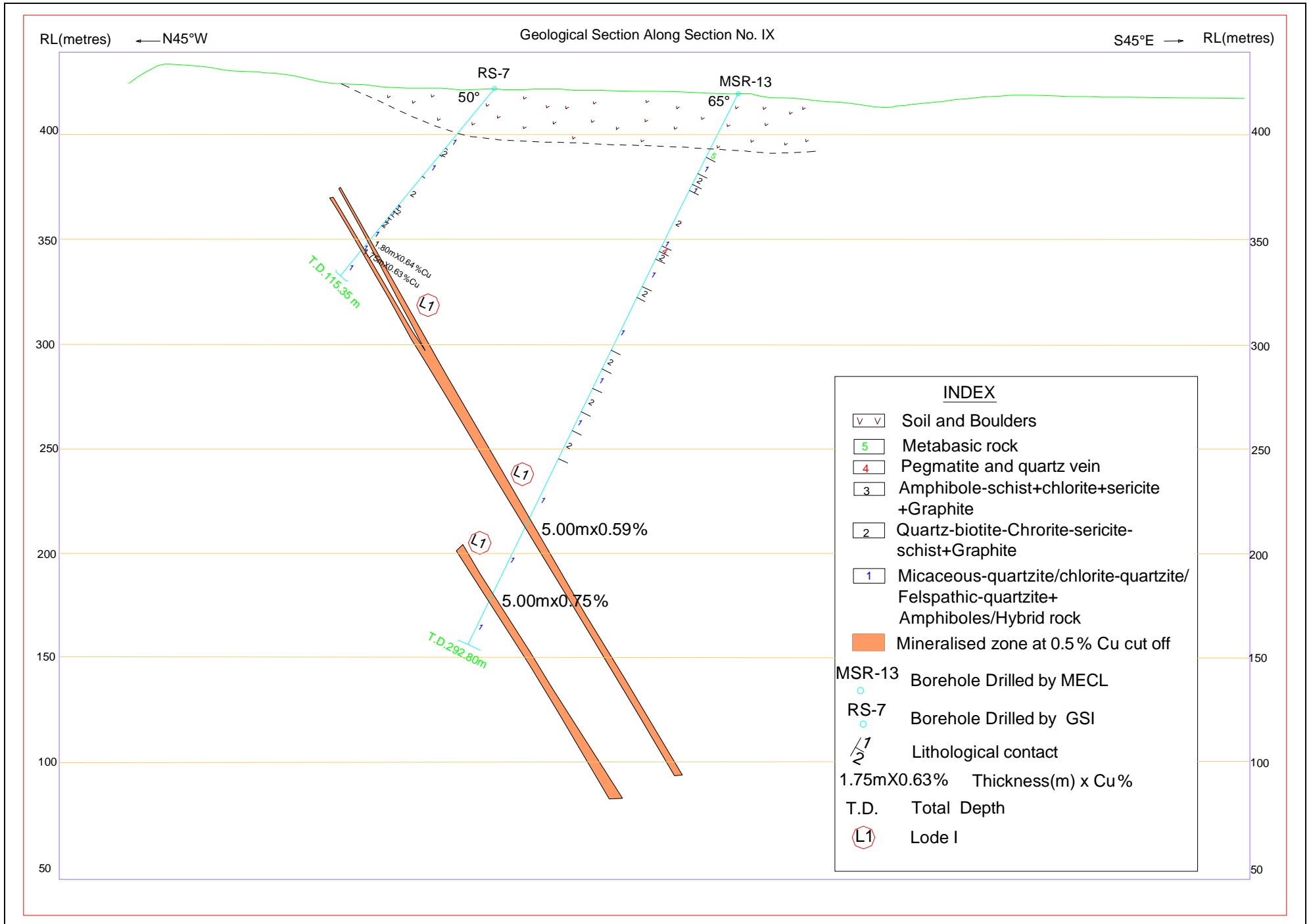
The studies on the baseline data of Environmental studies covering land use / land cover pattern studies have been carried out in the block.

The Total Cost of Exploration is Rs. 236.14 Lakhs.

Regional Geological Map of Khetri Copper Belt



GEOLOGICAL CROSS SECTION



LEVEL PLAN AT 300 mRL

