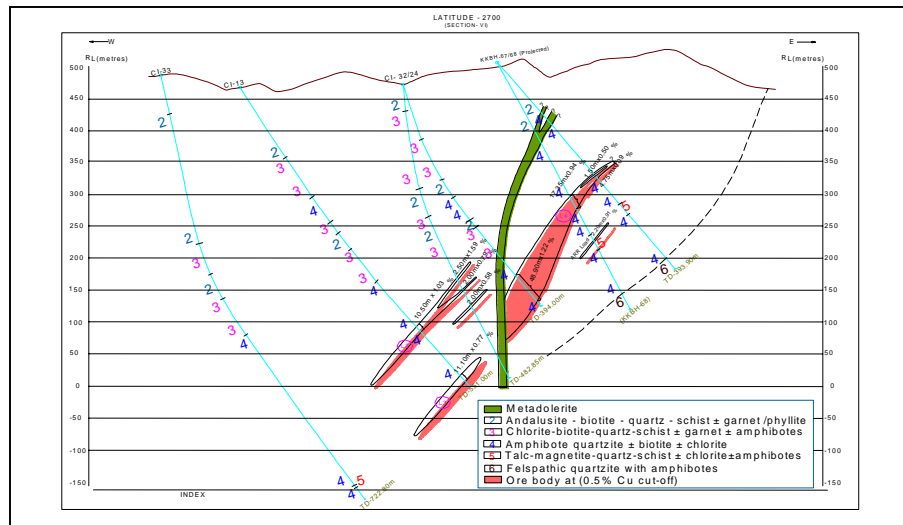


# GEOLOGICAL REPORT ON EXPLORATION FOR COPPER ORE IN CHANDMARI INTERVENING BLOCK KHETRI COPPER BELT DISTRICT- JHUNJHUNU, RAJASTHAN

## EXECUTIVE SUMMARY



**MINERAL EXPLORATION CORPORATION LIMITED**  
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## **EXECUTIVE SUMMARY**

### **1.0 LOCATION**

Chandmari Intervening block lies between the Kolihan mines and Chandmari open pit of M/s. Hindustan Copper Limited (HCL) and stretches over 1km strike length and falls in Survey of India Toposheet No.44P/16. Khetri town is 1.5km away from the block. Delhi (200 km) and Jaipur (170 km) are well connected with Khetri Town. Smelter of HCL is 10 km away from Khetri town.

### **2.0 GEOLOGY AND STRUCTURE**

The rock types belong to Alwar and Ajabgarh Group of the Delhi Super group. They comprises of Quartzite, Andalusite- phyllite/ schists, chlorite –biotite-schist, amphibole quartzites. The general strike of foliation is North-South with dips varying from 30-55° due west.

### **3.0 MINERALISATION**

Numerous old workings, gossan zones and malachite staining are the surface manifestation of mineralisation. Amphibole quartzite and chlorite-biotite-quartz schists are the main host rock for sulphide mineralisation. MECL work has established 4 Nos. of copper lodes (Lode- I , II, III & IV).

### **4.0 QUANTUM OF WORK**

MECL has carried out detailed geological mapping covering 1.10 sq.km area. 17896m of drilling in 38 boreholes, 3675 Nos. of primary and check samples, 56 Nos. of composite samples, 48 Nos. of composite samples for fire assay of gold and silver, 128 Nos. of for analysis of minerals and ores for trace elements by atomic absorption methods , petrographic studies on 113 rock specimen and 104 specimen for mineragraphic studies were done. Beneficiation on 1 bulk sample, Geotechnical studies on drill core samples and environmental studies were also carried out by MECL in the block. Based on above data and earlier data of GSI , an exploration report was submitted by MECL.

## **5.0 ORE RESERVE ESTIMATION**

A total of 12.10 million tonnes of copper ore reserves with average grade of 1.03% of Cu at 0.5% cut-off have been estimated in 4 Nos of lodes covering 1000 m strike length within vertical column of 400m between 350 mRL and (-) 50 mRL. Lode-III & Lode-IV account for 94% of the total reserves.

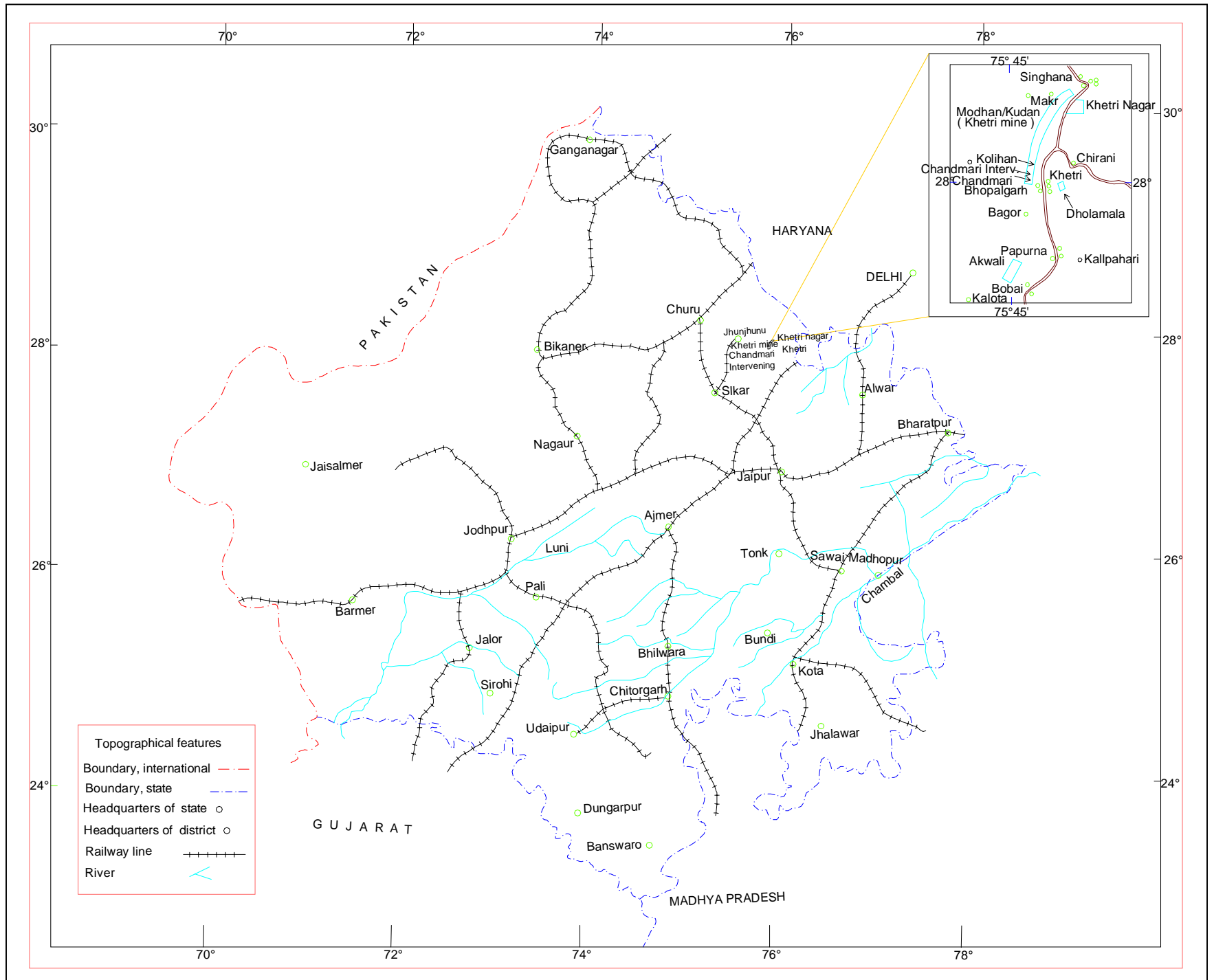
Bench scale beneficiation studies on one bulk sample from Lode –III by IBM yielded copper concentrate assaying 16.35% Cu with 85% recovery. Besides, ore contents 262 ppm Ni & 259 ppm Co.

MECL has also conducted geostatistical studies for evaluation of grade and tonnage estimates. This study indicates prediction accuracy of 86% for L-III & 84% for L-IV.

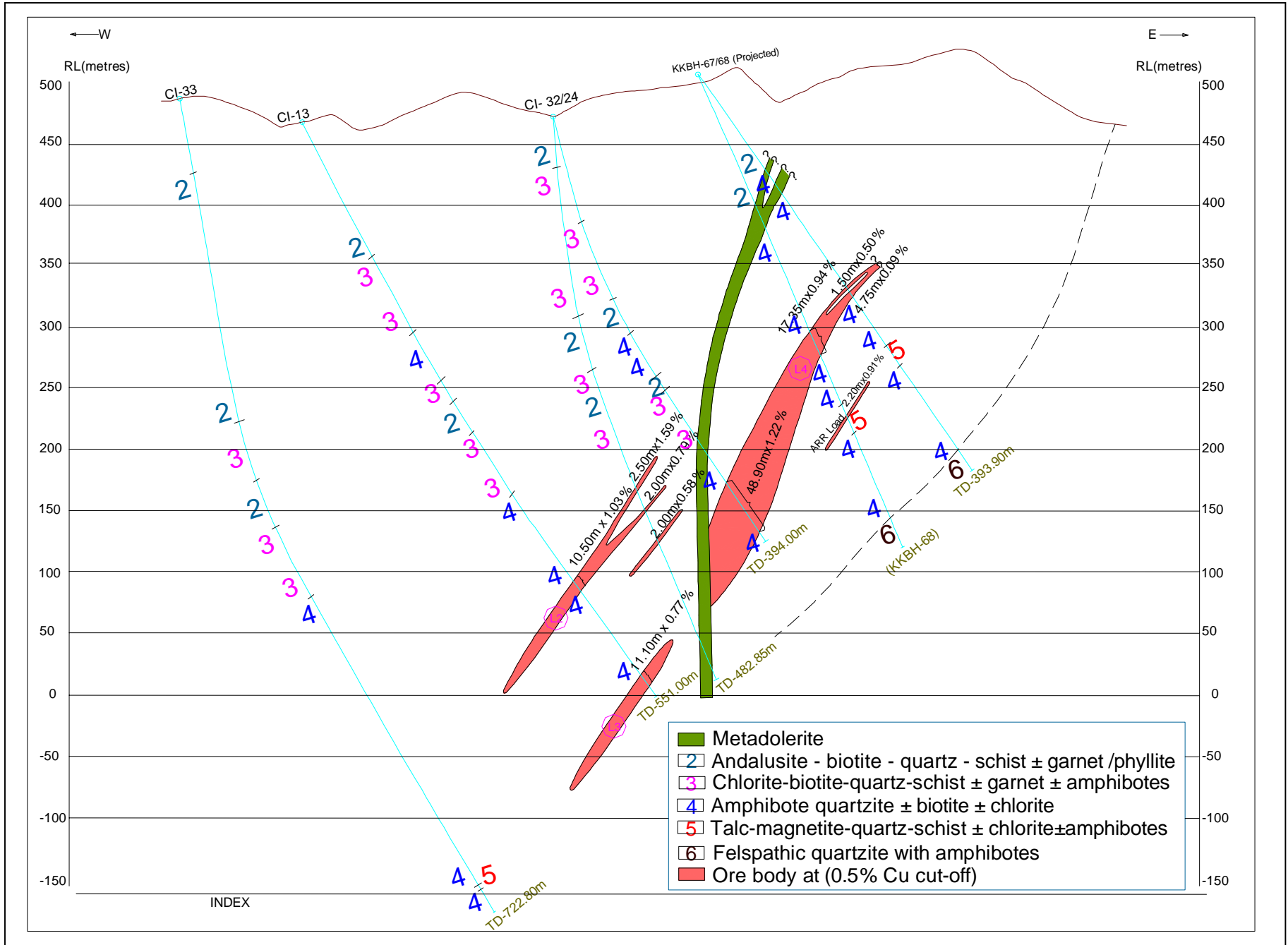
**The deposit has been placed under category-‘A’ of UNFC 331.**

**The total cost of exploration is Rs.377.78 lacs.**

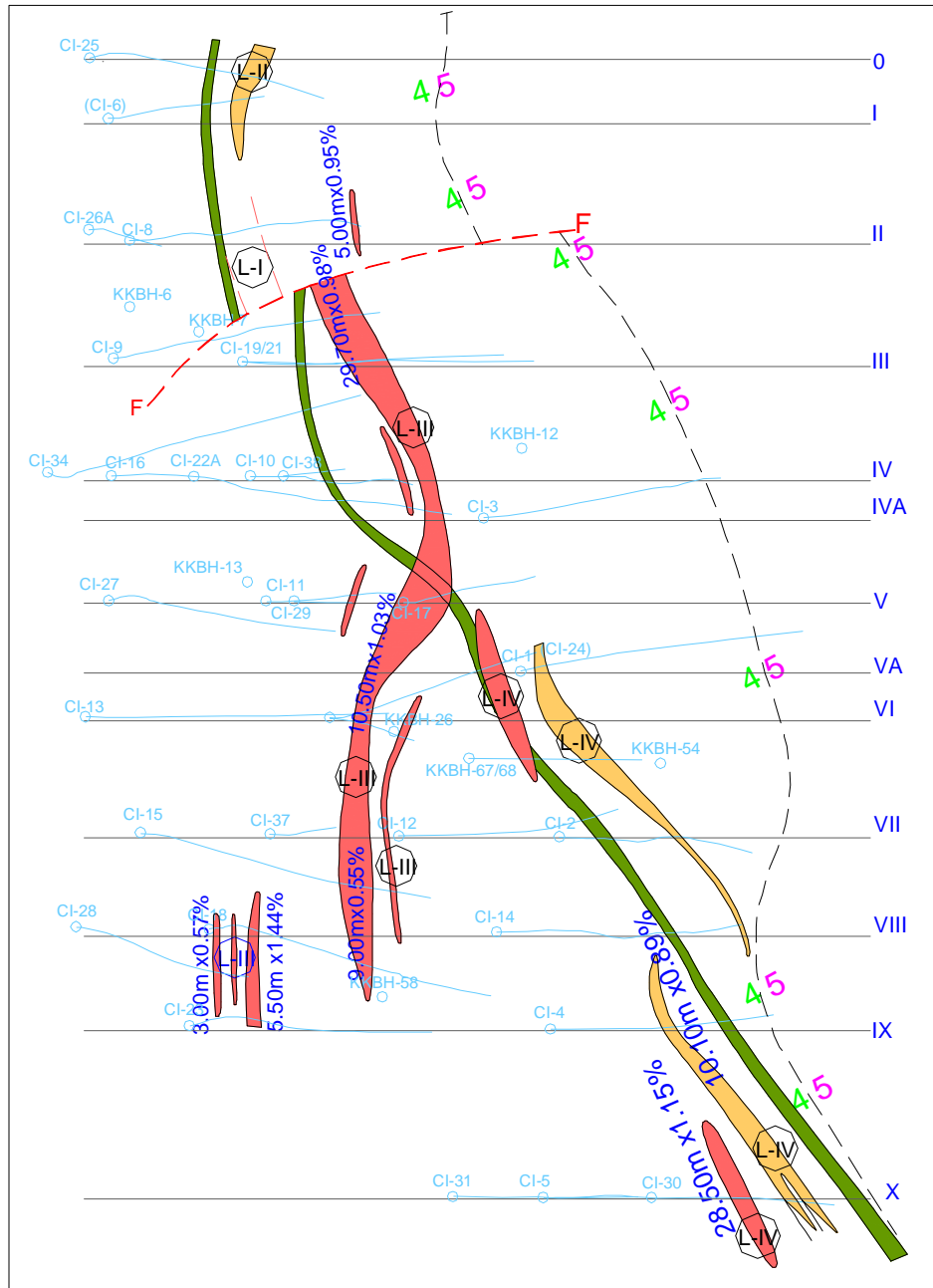
# Location Plan of Chandmari Intervening Block



# Geological Cross Section



# Level Plan at 100 mRL & 250 mRL



## INDEX

- |            |   |  |                                       |
|------------|---|--|---------------------------------------|
| CI-5       | Path of borehole drilled by M E C L       |  | Lithocontacts ( 250 MRL)              |
| KKBH-67/68 | Borehole drilled by G S I                 |  | Fault                                 |
|            | Dyke ( of 250 MRL)                        |  | 3 Garnet - chlorite - quartz - schist |
|            | Ore Body of 0.5% Cu cut off ( of 250 MRL) |  | 4 Amphibole quartzite                 |
|            | Ore Body of 0.5% Cu cut off ( of 100 MRL) |  | 5 Felspathic quartzite                |
|            | Ore body interpolated                     |  |                                       |
|            | Lode Number                               |  | 4.00m x 0.50% Thickness X Cu %        |