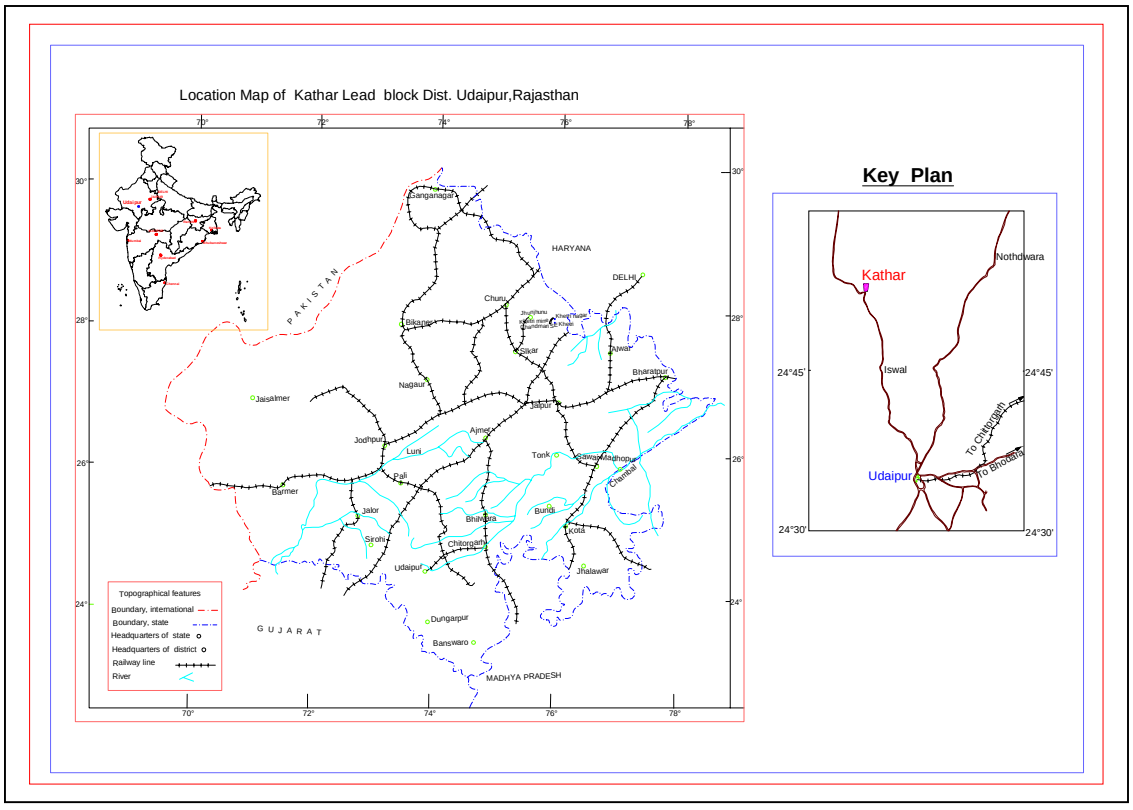
GEOLOGICAL REPORT ON

THE EXPLORATION FOR LEAD ORE

KATHAR AREA

DISTRICT- UDAIPUR, RAJASTHAN

EXECUTIVE SUMMARY



MINERAL EXPLORATION CORPORATION LIMITED
(A GOVERNMENT OF INDIA ENTERPRISE)
NAGPUR-440006

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GEOLOGICAL REPORT ON THE EXPLORATION FOR LEAD ORE IN KATHAR AREA DIST. - UDAIPUR, RAJASTHAN

EXECUTIVE SUMMARY

1.0 LOCATION

The Kathar lead deposit is situated about 40 km north of Udaipur city in the Udaipur district of Rajasthan and bounded between North Latitude-24º50'00" - 24º55'10" and East Longitude-73º34'25" - 73º36'19". It covers in Survey of India Toposheet No.45H/9.

2.0 GEOLOGY AND STRUCTURE

The rock types in Kathar area belong to the Aravalli Super Group and comprise of biotite schist ± garnet, gritty and arkosic quartzites, impure limestone/dolomite, carbonaceous phyllite and intrusives consisting of quartz veins.

The geological succession in the block, deciphered on the basis of surface geology and the subsurface data is given below;

	Intrusive
	Carbonaceous Phyllite
	Garnet-biotite-schist/Phyllite
	Quartzite
Aravalli	Quartzite-schist intercalations
Super group	Calc-silicate rock
	Dolomite/impure limestone
	Gritty/arkosic quartzites
	Biotite-schist± chlorite
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Archean	Banded Gneissic Complex

The Mahadev, Parvati and Kalka hills represent the western limb of a southerly plunging anticlinal structure. The eastern limb of this major anticline as observed by SPOT imagery is dislocated and folded. The closure of this fold is observed north of Fatehpur village.

The strike of the rock formations is generally N14ºE-S14ºW with steep sub-vertical easterly dips.

3.0 MINERALISATION

Galena occurs in association with thin veinlets of quartz within the garnet-biotite-schist as fine specks and disseminations. Pyrite and pyrrhotite are also observed as fine disseminations within garnet-biotite schist and quartzite.

4.0 QUANTUM OF WORK DONE

MECL has carried out Geological Mapping on 1:10000 scale covering an area of 10 Sq.Km and detailed Geological Mapping & topographical survey covering 4.0 Sq. Km area on 1:2000 scale. 21.425 Lkm SP survery, 20.55 Lkm resistivity profiling, 10 Nos. of resistivity sounding, 16.90 Lkm IP survey and 21.85 Lkm Magnetic survey has been carried out. 2741.35 Mtrs of drilling in 15 boreholes, 368 (330+38) Nos. of primary, check and duplicate core samples for lead, 351 Nos of surface samples including abandoned mine samples, 20 Nos of composite samples were analysed. 20 Nos.of samples for gold and silver by fire assay method and 20 samples subjected for spectroscopic studies. 56 samples were subjected for ore microscopic and Petrological studies. Base line Environmental and remote sensing studies were also carried out by MECL in 10 sq km area of the Block. Based on the above data an exploration report was submitted by MECL.

5.0 ORE RESERVE ESTIMATION

The exploration in the block is carried out with a view to intersect lead mineralisation, 50m below the valley level and covering a strike length of 2.6 kms. The boreholes did not intersect any appreciable lead mineralisation at the level planned for. The borehole data confirms that the lead mineralisation is erratic and impersistent both in depth as well as along strike.

The result of the integrated studies has helped in understanding the regional structure of the area and the possible loci of feeble lead mineralisation.

The subsurface drilling carried out in a part of area covering Mahadev hill has not yielded encouraging results. The results indicate that lead mineralisation is poor, erratic in behavior and pinching out very abruptly.

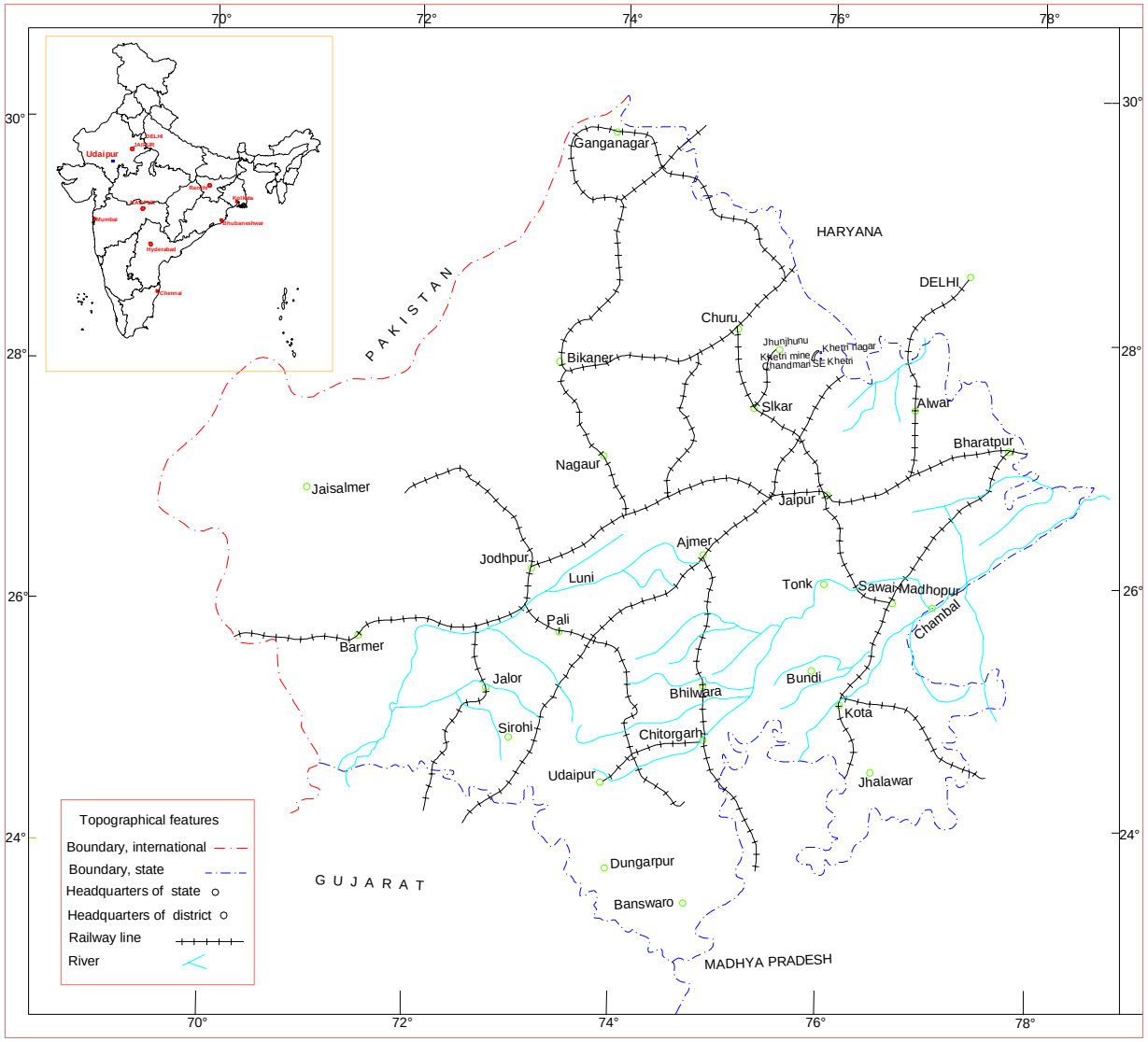
The Deposit has been classified as Category 'D' of UNFC 333.

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

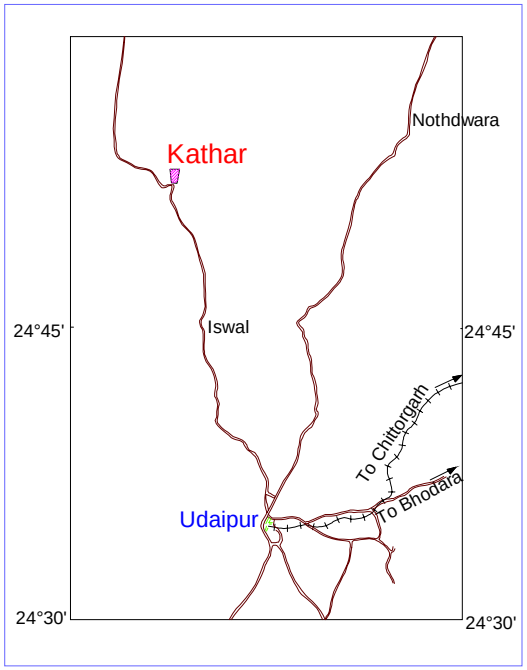
The Total Cost of Exploration is Rs. 127.37 Lakhs

LOCATION MAP OF KATHAR BLOCK

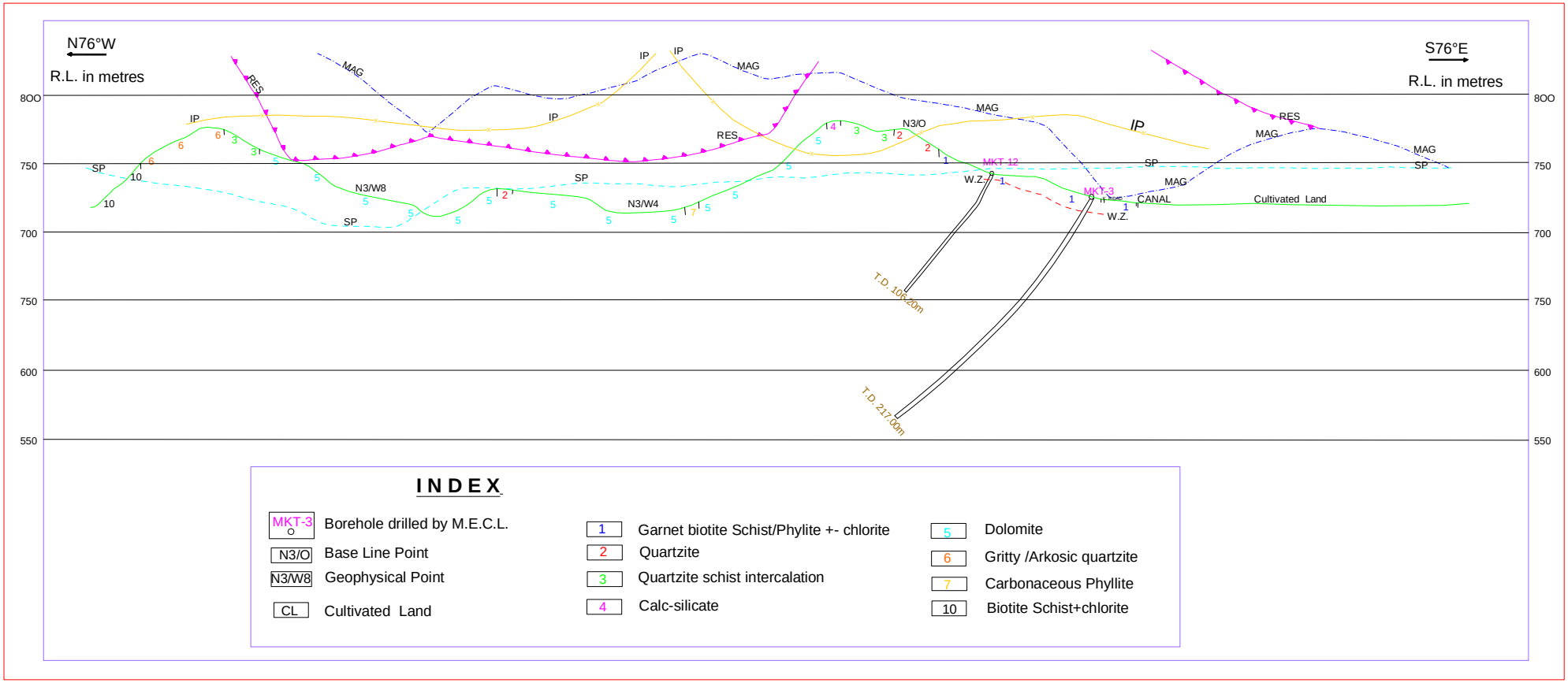
Location Map of Kathar Lead block Dist. Udaipur,Rajasthan



Key Plan



GEOLOGICAL CROSS SECTION



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MKT-3	Borehole drilled by M.E.C.L.	1	Garnet biotite Schist/Phylite +- chlorite	5	Dolomite
N3/O	Base Line Point	2	Quartzite	6	Gritty /Arkosic quartzite
N3/W8	Geophysical Point	3	Quartzite schist intercalation	7	Carbonaceous Phyllite
CL	Cultivated Land	4	Calc-silicate	10	Biotite Schist+chlorite