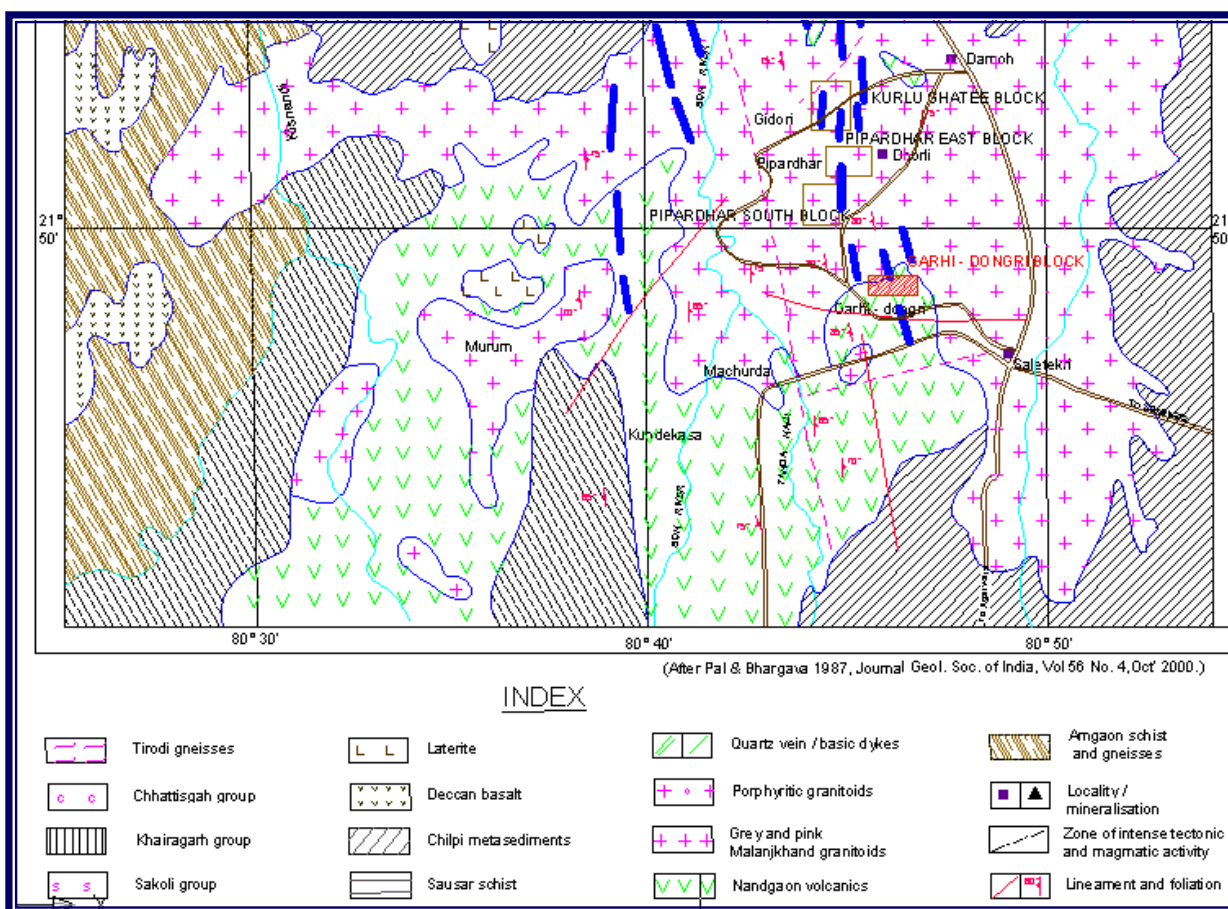


GEOLOGICAL REPORT ON EXPLORATION FOR GOLD IN GARHI DONGRI BLOCK (PHASE-II)

MALANJKHAND GRANITOID DISTRICT - BALAGHAT, MADHYA PRADESH

EXECUTIVE SUMMARY



MINERAL EXPLORATION CORPORATION LIMITED
(A Government of India Enterprise)
Seminary Hills, Nagpur

CENTRAL ZONE

NAGPUR – 440 006

JULY - 2007

**GEOLOGICAL REPORT ON
EXPLORATION FOR GOLD MINERALISATION
GARHI – DONGRI BLOCK (PHASE-II), MALANJKHAND GRANITOID
DISTRICT: BALAGHAT, MADHYA PRADESH**

EXECUTIVE SUMMARY

1.0 LOCATION

The block is located 30 km south of Malanjkhanda opencast mine of HCL in Baihar tehsil of Balaghat District, MP. It lies between Latitudes 21°48'40" to 21°49'05"N and Longitudes 80°45'02" to 80°46'46"E and form a part of Survey of India Toposheet No. 64C/13.

2.0 GEOLOGY AND STRUCTURE

The Garhi - Dongri block is covered by fine-grained metabasaltic rocks, intruded by younger Malanjkhanda granitoid, mineralized quartz veins and basic dykes. The older quartz sericite schist of Amgaon Group and quartzites of Nandgaon Group are seen as enclaves in Metabasalt and Granitoids. The older rock shows foliation trending NNW – SSE. The main host rock of mineralisation, vein quartz extending East to West and dipping 40° to 55° due North, attain a maximum thickness of 40 m (OC-1). The geological succession as worked out from the geological mapping and subsurface data from the boreholes is given below:

Stratigraphic Sequence in Garhi Dongri Block

	Soil
Intrusive Rock	Basic dyke Microgranitoids Quartz veins (mineralized)
Nandgaon Group	Malanjkhanda granitoids Metabasalt, Andesitic basalt and quartzites
Amgaon Group	Quartz – Sericite Schist.

3.0 MINERALISATION

The vein quartz in the main host rock for mineralisation. The granitoids also show feeble mineralisation. Pyrite & Chalcopryrite are the main ore minerals, besides Haematite, Magnetite, Pyrrhotite, Sphalerite, Galena and Covelite are also present. Carbonates of copper – Malachite and Azurite, are seen in the outcrops. Chromite and Molybdenite are also present in traces. Goethite and Limonite are present in minor amounts. Gold presence is evidenced by analysis of trench and drill core samples. The panning for gold by tribals in the Ama Nala south of borehole MGD-11 of earlier phase and further downstream and the old mine working over OC-1 located on vein quartz are indications of presence of gold in Garhi Dongri block.

4. QUANTUM OF WORK DONE

MECL carried out the detailed drilling involving of 801.00m in 5 boreholes (MGA-1 to MGA-5) and trenching of 2100 m³ in 20 trenches. 165 nos. of drill core & 160 nos. of trench samples of primary samples for copper and 779 nos of drill core & 1405 nos. of trench samples of fire Assay for gold were sampled. Besides above, 40 +15 (drill core + trench) of check samples for Au; 30 samples (8 radicals) of composite samples; 30 samples for spectroscopic studies, 25 nos. for mineragraphic studies & 30 nos. for specific gravity were prepared. Based on the above data final geological report is prepared by MECL.

5. ORE RESERVE ESTIMATION

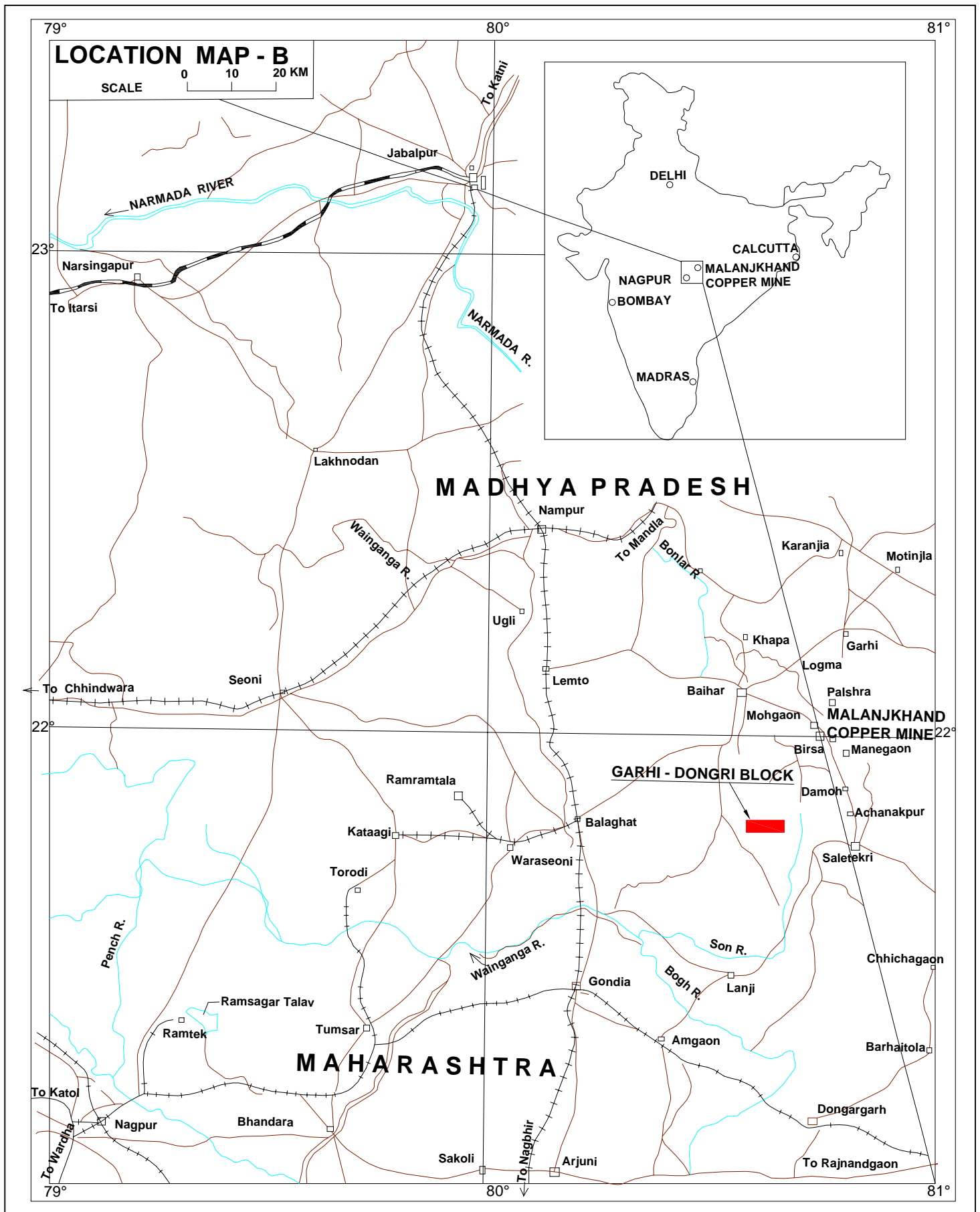
Significant gold values have been intersected only in few boreholes / trench samples and not intersected in all boreholes and trench samples hence strike & dip continuity as expected could not be established. Mineralised Zones could not be computed hence reserve estimation has not been attempted. In Garhi-Dongri block only gold occurrences could be established without any significant gold values.

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

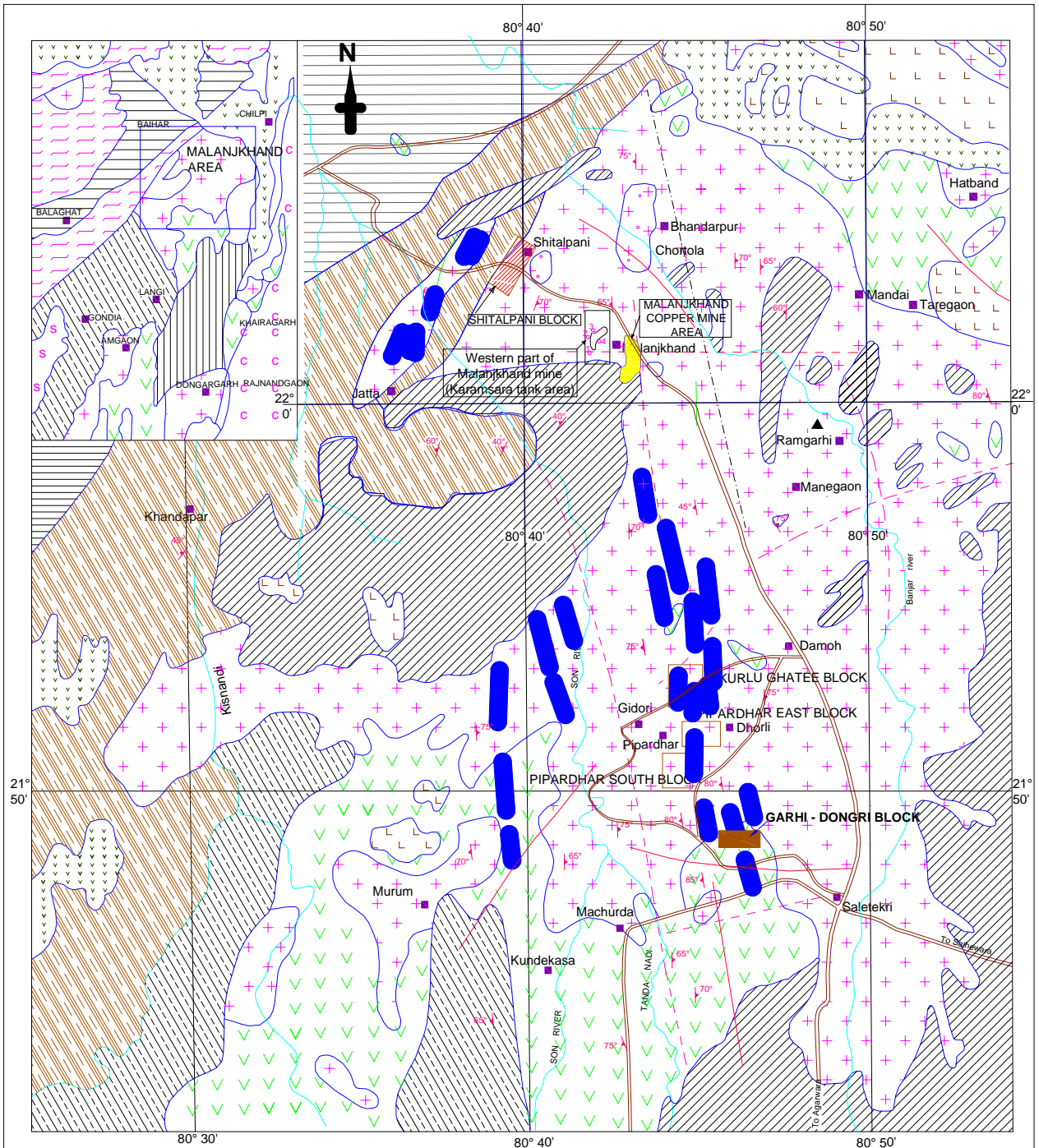
The studies on the baseline data of Environmental studies covering land use / land cover pattern studies have been carried out in the block.

The Total Cost of Exploration is Rs. 119.51 Lakhs.

LOCATION MAP OF GARHI - DONGRI



REGIONAL GEOLOGICAL MAP OF MALANJKHAND AREA



INDEX

(After Pal & Bhargava 1987, Journal Geol. Soc. of India, Vol 56 No. 4, Oct' 2000.)

	Tirodi gneisses		Laterite
	Chhattisgah group		Deccan basalt
	Khairagarh group		Chilpi metasediments
	Sakoli group		Sausar schist
	Quartz vein / basic dykes		Amgaon schist and gneisses
	Porphyritic granitoids		Locality / mineralisation
	Grey and pink Malanjkhand granitoids		Zone of intense tectonic and magmatic activity
	Nandgaon volcanics		Lineament and foliation

MINERAL EXPLORATION CORPORATION LIMITED	
REGIONAL GEOLOGICAL MAP OF MALANJKHAND AREA	
GARHI - DONGRI BLOCK MALANJKHAND GRANITOIDS, DISTT. : BALAGHAT, M.P.	
0 5 Km.	
Processed at : I. T. Centre, M.E.C.L.	TRACED BY : P.S. VAIDYA, T.A (SDM) R.J. KAMBLE, T.A (SDM)

GEOLOGICAL CROSS SECTION

SECTION : W-5

