

**NOTE ON TRANSPORTATION OF MINERAL**  
**KALIAPANI CHROMITE MINES, M/s BALASORE ALLOYS LIMITED**

**Transportation inside ML Area**

Inside the Mine Lease hold area Ore and Waste/ Over burden (OB) are being transported to their ear-marked /designated Dumping and Ore Stack Yards by 25 MT tippers being loaded by Excavators and Loader.

The lead distance from Mines to Stack yard and OB/waste Dump Yard have been considered up to 4km.

The high grade Chrome ore and medium Chrome ore raised from the quarry are hauled through 25 MT mining dumpers. After proper sorting, stacking, sampling and analysis, the material is dispatched to Lessee's Ferrochrome Plant situated at Balgopalpur, Balasore, Odisha, after obtaining requisite permission from Deputy Director Mines office as our Mines is Captive One.

Similarly, low grade chrome ore produced from the quarry is beneficiated in the Chrome Ore Beneficiation Plant and the final Product (Chrome Concentrate) is evacuated from the Plant to stack yard by dumpers. The material is then dispatched to Lessee's Ferrochrome Plant situated at Balgopalpur, Balasore, Odisha after following stipulated procedures under OMPTS Rule.

**Transportation From Mines to Ferro-Chrome Plant**

Transporting trucks are being deployed through contactor duly registered by State Mining department to take out the finished product from the mines. Outside trucks having PUC (Pollution Under Control) certificate and other safety features are only allowed to enter into the stack yard area. While going out it is ensured that all the mineral carrying trucks are covered with tarpaulin and are properly sealed. The road from Mines to Ferrochrome Plant at Balasore is about 178.2 km. The road involves both National Highway and State Highway as per details given below:

The Details of major roads connected are:-

From	TO	Length(in Km)	Type of Road
Kaliapani Chromite Mine	Mangalpur	22.0	MDR
Mangalpur	Duburi	13.4	NH-53
Duburi	Jajpur Road	15.2	SH-20
Jajpur Road	Panikoili	12.0	NH-215
Panikoili	Balasore(Remuna)	108.6	NH-16
Remuna Golai	Balasore Alloys Plant, Balgopalpur	7.0	State Road

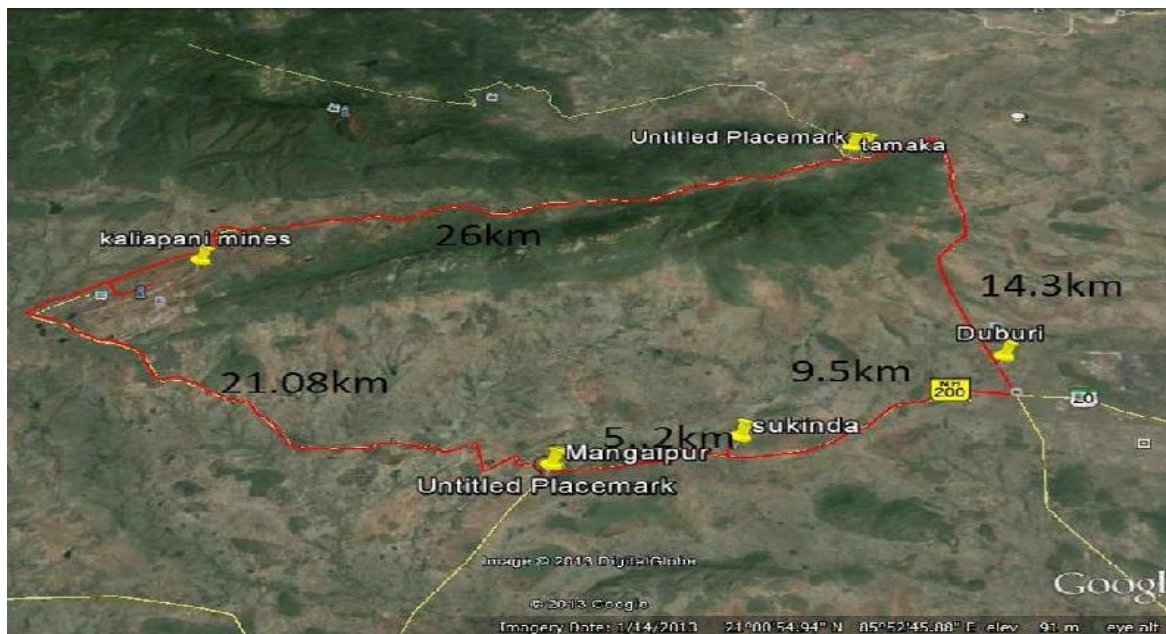
  
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**BALASORE ALLOYS LIMITED**

### Road Network from Mines to Plant



Out of total 22km of the Mangalpur to Kaliapani Chromite Mines road, 3.8km is rigid pavement & balance 18.20km is flexible pavement.

The road is being used by the mine owners like Jindal, Tata, Facor, Balasore Alloys etc. to transport the ores to different parts of the State. On an average 800 commercial vehicles are moving with loaded materials with loads varying from 10MT to 60MT (Load of material + load of vehicle.)



Study has been carried out on load bearing capacity of road from Mangalpur to Kaliapani Chromite Mines of M/s Balasore Alloys Ltd, at Kaliapani, Dist Jajpur, Odisha.

Basing on the field investigation data & the design considerations taken into account for construction of road, the road is suitable for carrying maximum load up to **80 MT**.

*[Signature]*  
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