

NOTE ON TRANSPORTATION OF MINERAL
SUKINDA CHROMITE MINE, M/s TATA STEEL LIMITED

PRODUCTION OF MINERALS:

This is a mining project producing chromite ore, chrome concentrate and pyroxenite. TATA Steel Limited (TSL) is having production capacity of chrome ore, pyroxenite ore and chrome concentrate of 2.4 million TPA (ROM), 0.5 million TPA (ROM) and 0.65 million TPA, respectively, from its existing mine at Sukinda over a mining lease area of 406 ha.

MATERIAL FLOW:

The flow of material inside the mines is as shown in Figure-1 given below.

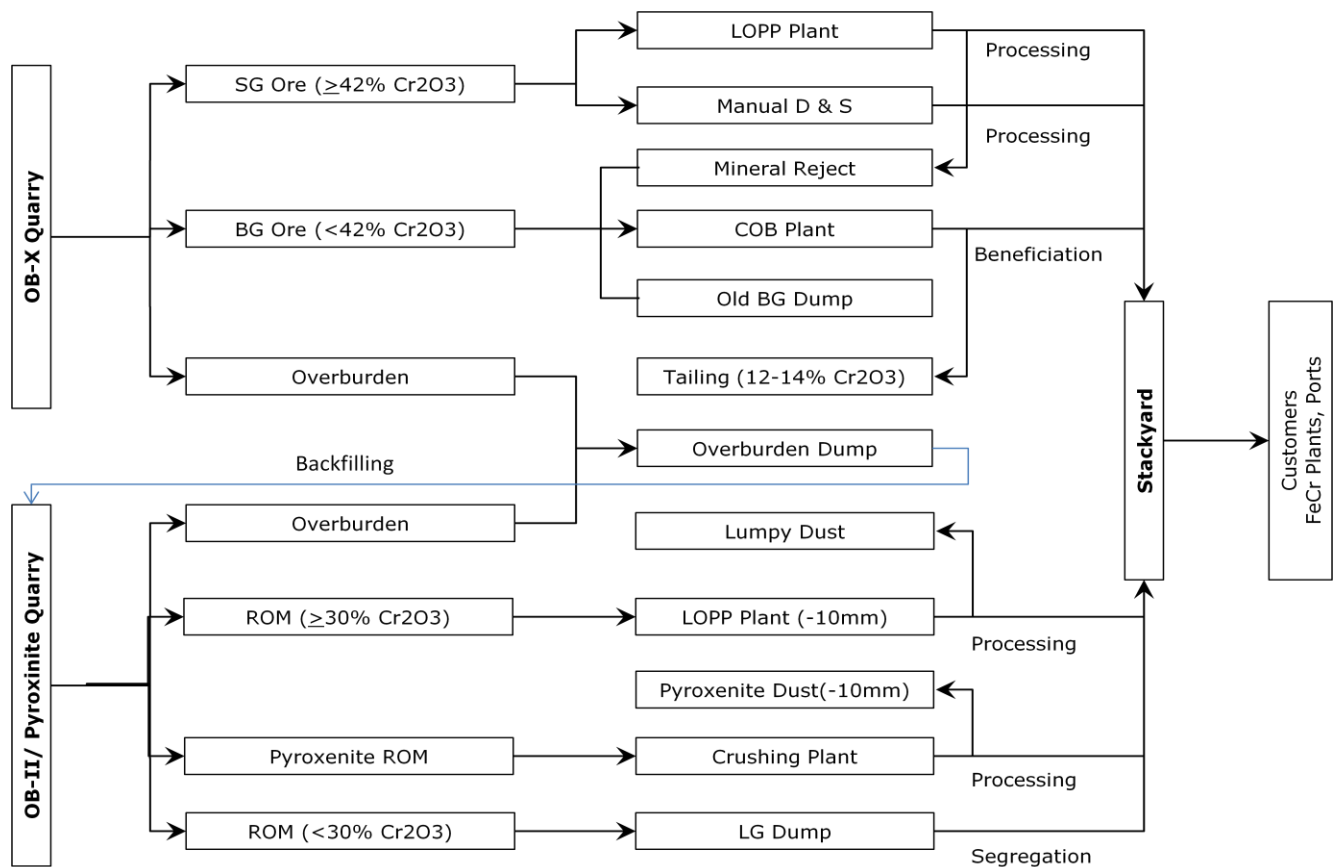


Figure-1: Material Flow

The high grade and medium grade chrome ore raised from the OB-X quarry is processed through processing plant/ manual sorting and is stored at the stackyard. All the material is hauled through 35t/ 50t mining dumpers. After proper stacking, sampling and analysis, the material is dispatched to various destinations after obtaining requisite permission from Deputy Director Mines office. Similarly, low grade chrome ore produced from the OB-X quarry is beneficiated in the Chrome Ore Beneficiation Plant and the final Product (Chrome Concentrate) is evacuated from the Plant to stackyard by company engaged dumpers. The material is then dispatched to various destinations after following stipulated procedures under OMPTS Rule.

Outside trucks are engaged 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 stackyard area. While going out it is ensured that all the mineral carrying trucks are covered with tarpaulin and are sealed.

The maximum salable/ marketable grade mineral quantity that shall be dispatched out of the mining lease area through the outside market truck is summarized as Table-1 given below:

Table-1
Finished Product to Despatch

Particulars	Chrome Ore	Chrome Concentrate	Pyroxenite	Total
Quantity to Despatch (Tonnes/ Annum)	11,93,000	5,50,000	5,00,000	22,43,000

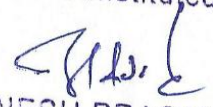
ADEQUACY OF EXISTING ROAD NETWORK:

At pick of the capacity, about 368 trucks per day which is equivalent to 1104 PCU per day would be using Sukinda Chromite mine to Tomka road and 528 trucks per day which is equivalent to 1584 PCU per day would be using Sukinda Chromite mine to Mangalpur road before joining NH-200. With present level of traffic and the predicted increase in existing traffic due to the project, adequacy of road/highway during operational phase of the plant has been estimated by comparison with the recommendations stipulated by Indian Road Congress (IRC). The IRC recommendations on traffic capacity are presented in Table-2.

Table-2
Recommendations On Traffic Capacity - IRC

Sr. No.	Category of Road	Maximum Carrying Capacity (PCU/day)
1	Two lane roads (7 m) with earthen shoulders	15,000
2	4-lane highway with earthen shoulders	35,000

The existing road has a width of 7 m, which is adequate for project. The estimated peak traffic in terms of PCUs is compared with the stipulated standards by IRC for traffic capacity of the existing roads. It can be observed that the existing road network will be well adequate for the increased traffic.

For TATA STEEL LTD.
By their Constituted Attorney

(GANESH PRASAD SAHU)
Head (Ferro Alloys Production)
Ferro Alloys & Minerals Division