

5.0 USE OF MINERAL AND MINERAL REJECT

- a) Describe briefly the requirement of end-use industry specifically in terms of physical and chemical composition.

The entire ore production including lumps and fines produced from Jhiling Langalotta Iron Ore Block will be consumed in neighboring steel plants/sponge iron plants of Odisha and nearby states. To meet market demand with about 60 % Fe the ore produced can be sold after processing i.e. sizing and sorting. To meet market demand with 60% Fe, both ore and mineral reject produces are proposed to be blended. Market demand is there for both fines (<10 mm) and lump which are to be produced from the mines.

Quality parameters of lumps and fines as specified by the steel plants are as follows.

SNo	Parameters	Lump Ore	Fines Ore
i	Fe	62.0 % (min)	60.0 % (min)
ii	SiO ₂	2.0 % (max)	2.0 % (max)
iii	Al ₂ O ₃	2.0 % (max)	2.0 % (max)
iv	Total Gangue (Al ₂ O ₃ + SiO ₂)	4.0 % (max)	4.0 % (max)
v	Size	+10 - 40 mm (Over & under size: Max. 10% Each)	Size: - 10mm (with oversize 10% maximum)

Quality parameters of lumps and fines as specified by the sponge iron plants are as follows.

Fe	Al ₂ O ₃	SiO ₂	P	Moisture	LOI	Size
64% to 65%	2.52%	1.48	0.046%	2.9% Maximum	3% maximum	+5 to -18 mm as well as +10 to -40 mm

- b) Give brief requirement of intermediate industries involved in up-gradation of mineral before its end-use.

The entire ore produced will be sold to long term buyers/state-based industries for their use.


- c) Give detail requirements for other industries, captive consumption, export, associated industrial use etc.

The entire ore produced will be sold to long term buyers/state-based industries for their use.

- d) Indicate precise physical and chemical specification stipulated by buyers

The entire ore production including lumps and fines produced from JhilingLangalotta lease will be consumed in sponge & steel plants of Odisha & nearby states. Quality parameters of lumps and fines as specified by the long-term buyers are as follows.


 Saroj Kumar Prusty


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Jiling Langalotta Iron Ore Block
Odisha Mining Corporation Ltd

Mining Plan &
Progressive Mine Closure Plan

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i	Fe	62.0 % (min)	60 % (min)
ii	SiO ₂	2.0 % (max)	2.0 % (max)
iii	Al ₂ O ₃	2.0 % (max)	2.0 % (max)
iv	Total Gangue (Al ₂ O ₃ + SiO ₂)	4.0 % (max)	4.0 % (max)
v	Size	+10 - 40 mm	Size: - 10mm.
vi	Tolerance	+/- 10%	+/- 10%

e) Give details of processes adopted to upgrade the ROM to suit the user requirements. All the ROM ore produced will be blended at the mine site itself and sized to the desired range suitable for its use in the steel plants by crushing, screening in mobile/stationary crushing & screening plant. If required the mineral reject/sub-grade will be sold directly in market as per demand.

The useable mineral recovered from ROM may not be directly used in any industry and may need intermediate process to suit the user industry in terms of physical and chemical compositions.

All the ROM ore produced will be blended at the mine site itself and sized to the desired range suitable for its use in the steel plants by crushing, screening in mobile/ stationary crushing & screening plant. If required the mineral reject/sub-grade will be sold directly in market as per demand.


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