

**INDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-2/BBS

Mine code : 30ORI13006

- (i) Name of the Inspecting : **25**) **SHRI IBRAHIM SARIF**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri A K Pal, G M and Shri A.K.Ghosh, AGM(Min.), KIM
Official with
Designation
- (iv) Date of Inspection : 20/02/2016
- (v) Prev.inspection date : 09/03/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KALTA**
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : KALTA
- Taluka : BONAI
- Post office : KALTA
- Pin Code : 770052
- FAX No. : 06625-234023
- E-mail : NIL
- Phone : 06625-234036
- (e) Police Station :
- (f) First opening date : 06/01/1960
2. Address for : KALTA IRON ORE MINE
correspondance AT/PO-KALTA
DIST-SUNDERGARH
3. (a) Lease Number : ORI0158
- (b) Lease area : 3.34
- (c) Period of lease : 20
- (d) Date of Expiry : 17/01/2004
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : SAIL
 Barsuan, Tensa SUNDARGARH
 ORISSA
 Phone:
 FAX :

Owner : SAIL
 SUNDARGARH ORISSA
 Phone:
 FAX :

Agent : S.P.GUPTA
 PL & DQ, PURNA PANI
 SUNDARGARH ORISSA
 Phone: 0661-728121
 FAX :

Mining Engineer

Name : D.PANDIT, Full Time
 Qualification : BTECH(HONS)
 Appointment/ : 30/06/2002
 Termination date

Mining Engineer

Name : R.K.BRAHMA, Full Time
 Qualification : B TECH (MINING) IST CLASS MANAGERS CERTI
 Appointment/ : 11/02/2003
 Termination date

Mining Engineer

Name : P.C.NAIK, Full Time
 Qualification : B TECH IN MINING
 Appointment/ :
 Termination date

Geologist

Name : S.R.PATTANAIK, Full Time
 Qualification : MSC (GEO)
 Appointment/ : 17/03/2003
 Termination date

6. Date of approval of Mining : 21/06/2013
 Plan/Scheme of Mining

PART - II : TECHNICAL DETAILS/COMMENTS

1. Details about Average employment :

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
DIRECT		
Managerial	18	308
Workers	4	308
Plant	2	308
Ministrial	9	308

Others	22	308
Supervisory	24	308
CONTRACT		
Plant	6	308
Workers	529	308
Others	85	308
Supervisory	529	308

2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
General					
Infrastructure					
Sub total					
Sub total					
Total					

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

During earlier inspection violation of rule 13(1), 16(1), 23(E)(2), 33(2) & 33(6) of MCDR, 1988 was pointed out to the party vide this office letter dated. 09.04.2015 followed by show cause notice dated 22.06.2015 for non compliance of violation of rules 13(1),16(1), 33(2)& 33(6) of MCDR, 1988.

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.

Not Recommended at present

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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A. Exploration (Rule 13)

b.Total area covered : Complete area of 336.47 Ha of Kalta Iron Ore Mine is covered by exploration.

B. Working (Rule 13)

a.Number and size of : Pit size No. of OB
each pit (LxWxH) benches No. of benches
in ore
Local
(400 x 360)
1 11
New Area
(380 x 300)
1 13
CG-east
(500 x 200) 1
11
CG-west
(220 x 160)
1
05
Kala Pahar Area
550 x 240
2
05

b.Bench : Height : 6m & 12m
size(LxWxH)length can Width : 8m &10m
be defined as
regular/irregular

d.Total area covered : 132.777 Ha 132.777 Ha
under excavation/pits

C. Waste disposal (Rule 13)

a.Location of dumps : Challan-gate(West)
OB/Waste
Challan-gate(West)
OB/Waste
Block-B(near Site
Office) SGM
Block-B(near site
office) OB/Waste
M.N.Area(stabilized
dump) OB/Waste

b.Method of dumping : Advancing
whether Advancing
advancing/retreat

e.Yearly generation : 780000 Te 441763Te
of waste quantity.

c.Total area covered : 10.235 Ha 10.235 Ha
under waste dump.

d.No.and size of each : Challan-gate(West) Challan-gate(West)
waste dump with No of OB/Waste
steps/lift/bench OB/Waste Non- Non-mineralised 60 40
mineralised 60 40 Challan-gate(West)
Challan-gate(West) OB/Waste
- do -
OB/Waste - do - 50 30
50 30 Block-B(near Site
Block-B(near Site Office) SGM - do - 1200 14
Office) SGM - do - Block-B(near site
office) OB/Waste - do -
450
60
M.N.Area(stabilized
dump) OB/Waste - do -
300 100

D. Production

b.Year wise : 2014-15 : 1297670.00 In MT
production of last
five year.

D. Reserve

a.Reserve position as : Proved 61835000.00
per latest MP/MS and +57% Fe
at the time of Possible: 72897000.00
inspection. +45% Fe
Total
134732000.00

RESERVE POSITION AS ON 01/04/2015

IRON ORE		
Category	Quantity in Tonnes	Grade
Proved	61835000	>57% Fe
Probable		
Possible	72897000	>45% Fe
Total	134732000	>45% Fe

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
IRON ORE	1297670	TON

6. Conservation of Mineral - both quantitative and qualitative**Beneficiation (Rule 20 and 26)**

Efforts for improving percentage of recovery of ore. : Manual sorting and sizing

Mineral Rule 15

Number of benches in ore and waste. : OB :1 to 2 benches
Ore : 4 to 14 benches

Percentage of recovery of ore pitwise w.r.t. ROM and total material : Ore 80%
Sub grade ore 10%

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : Total Quantity up to 31.03.2015: 1813775.6 MT- average grade of 53% Fe
Quantity is reported to be generated during the year of 2015-16 so far is about 25700 MT(58 to 60% Fe).

Number and size of each stack : Seven nos. of sub grade stock is present, because earlier dumps considered as waste after analysis for iron ore content are found to be more than 45% Fe.
Main Sub grade dump: 83742 cum
Bottom of screen plant : 40890 cum
Top of screen plant : 71280 cum
Kalapahar south-4 & Kalapahar North -5 : 49572 cum
Middle of sub grade dump : 32000 cum
4 no. of sub grade dump in Block B area: 370293 cum

Location of stacking. : Block B area

Total area covered for stacking : 6.210 Ha

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
168		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015

Overburden/waste removed (in m3) :	157773
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Utilisation of Sub Grade Mineral and Mineral Rejects

Generated	Utilised	Stacked	(In Ton.)

7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : The lease area is of hilly terrain and mining is being carried out on hill top.
- b. Aesthetic environment : The land degraded due to mining and allied activities is being improved by plantation along slopes of dumps/ sub grade stocks.
- c. Soil and land use pattern : There is hardly any top soil available in lease area.
Land use :
Covered under opencast working: 132.777 Ha
Waste disposal : 10.235 Ha
Occupied by plant, building etc. : 12.153 Ha
Ore stock piles : 6.210 Ha
- d. Agriculture : No agricultural land exist in theKalt area.
- f. Vegetation : Vegetation within 10 Km radius of buffer Zone is still quite good. Dominant species is Sal (Shorea Robusta) followed by Kusum and Palas etc.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : No such Public building, places and monuments (protected, historical), placec of worship and places of tourist exist in the lease area.

B Water environment.

- b. Ground water : Mining operation are being carried out at hill top and there is no possibility to intersect the ground water table in the area. No impact on ground water table.
- c. Quality of water : Potable

C. Air environment

- c. Climatic condition : The Climate of the area is sub tropical.

D. Socio economic environment

- a. Social and demographic profile. : Peoples of the surrounding area of lease is dominated by Tribals belongs to Schedule caste and Schedule tribes. The Schedule tribes population is about 62% and Schedule caste is about 7%. The instant mine is being worked by manual as well as mechanised means. Mine has provided employment to about 3000 local people for sorting and loading of Iron Ore at mining pit and Railway siding.
- b. Recommending health and safety. : 18 bedded Hospital is established by the company at mines colony area for company workers as well as for the persons of surrounding villagers headed by Sr. Dy. Director (Medical)having Specialization in Occupational Health, . Free consultancy and medicine is provided to local inhabitants. Free medical health camps are organized regularly. Safety precautions like providing helmate and shoes to the workers. Well equipped VTC with qualified staff exist. PPE is provided to workers as per statute.

- c. Human settlement : No human settlement within lease area
- d. Recreational facility. : There is a mini stadium in Kalta township where most of the games & sports activities are held. Various football, cricket & Hockey tournaments. There is a Club for recreation of employees, indoor games facility is provided. Provision of a gym is also being added to encourage health consciousness among residents. Annual Athletics Meet held during the month of January every year is a big attraction for local youths. Cultural functions are also held. play ground in adjacent Kalta Basti village.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>	<u>2014 - 2015</u>
	Area in Hect.

<u>TOP SOIL MANAGEMENT</u>
Quantity as on 31/03/2015

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

Year: 2014-15

Cost of Production per MT: Rs. 1414.93

Ex-mine price : Rs.1274.47

Production : 1297670 MT

Closing stock :

Lumps: 9932.597 MT of 60-62% Fe

43058.702 MT of 62-65% Fe

1356 MT of +65% Fe

Fines : 13250 MT of 60-62% Fe

69812 MT of 62-65% Fe

4716 MT of +65% Fe

Reserves:

111 : 61835000 MT

Land use :

Covered under opencast working: 132.777 Ha

Waste disposal : 10.235 Ha

Occupied by plant, building etc. : 12.153 Ha

Ore stock piles : 6.210 Ha

value of Fixed asset (in Rs.) : 616938

PART - III : PERFORMANCE OF MINE OWNER

(In case of lease expiring within 2 years - as per guidelines)

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

None

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

None

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

None

Date :

(SHRI IBRAHIM SARIF)

Indian Bureau of Mines