

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-13/BBS

Mine code : 11ORI19013

- (i) Name of the Inspecting : 25) SHRI IBRAHIM SARIF
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri A Dhar, Mines Manager, Shri K Mohanty, Geologis
Official with
Designation
- (iv) Date of Inspection : 12/03/2016
- (v) Prev.inspection date : 21/07/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : KALIAPANI
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : JAJPUR
- Village : KALIAPANI
- Taluka : SUKINDA
- Post office : KALIAPANI
- Pin Code : 755047
- FAX No. : 06726-224384
- E-mail : ialmines@yahoo.com
- Phone : 06726-268297,98,224274
- (e) Police Station :
- (f) First opening date : 14/09/2000
2. Address for : VILL & PO: KALIAPANI
correspondance POLICE STATION : TOMKA
DIST: JAJPUR, PIN: 755 047, ORISSA
3. (a) Lease Number : ORI0745
- (b) Lease area : 64.46
- (c) Period of lease : 30
- (d) Date of Expiry : 16/07/2030
4. Mineral worked : CHROMITE Main

5. Name and Address of the

Lessee : M/S BALASORE ALLOYS LTD.
BALAGOPALPUR - 756020
BALASORE ORISSA BALASORE
ORISSA
Phone:06782-275780
FAX :06782-27524, 275786

Owner : SANTANU MOHAPATRA
C-66 ,PALASAPALLI
BHUBANESWAR-20 BHUBNESHWAR
ORISSA
Phone:
FAX :

Agent : SANTANU MOHAPATRA
C-66 ,PALASPALLI
KHUTRDA ,BHUBANESWAR-20
BHUBNESHWAR ORISSA
Phone:
FAX :

Mining Engineer

Name : S.GANGOPADHYAY,Full Time
Qualification : DIPLOMA IN MINING
Appointment/ : 07/10/2003
Termination date

Geologist

Name : S.K. ACHARYA,Full Time
Qualification : M.Sc (GEOLOGY)
Appointment/ : 14/09/2000
Termination date

Geologist

Name : M.J. RAJU,Full Time
Qualification : M.SC (TECH)
Appointment/ : 05/10/2003
Termination date

Manager

Name : D.D. GIRI
Qualification : M.Sc(MINING)
Appointment/ :
Termination date

Manager

Name : P.BARIK
Qualification : DIP IN MINING,AMIE
Appointment/ : 01/05/2003
Termination date

6. Date of approval of Mining : 27/03/2015
Plan/Scheme of Mining

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	58	245
Supervisory	44	240
Plant	39	251
Workers	73	242
CONTRACT		
Workers	655	242

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					
Water supply			10.00	22.52	
Health			10.13	0.50	
Sub total			20.13	23.02	
Infrastructure					
Public transport		9.65		2.75	
Sub total		9.65		2.75	
Training		10.02		0.09	
Others		8.86		10.57	
Recreation		3.42		0.00	
Environment management		2.68		26.24	
Total		54.76		62.67	

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

In the last inspection violation of rule 13(1) of MCDR 1988 was pointed out regarding waste dumping was carried out in non approved area and party has proposed to rehandle within 3 months from 30.11.2015 but during inspection no rahandling was carried out, the violation is still continuing.

during current inspection violation of rule 13(1) and 45(7) of MCDR 1988 was observed on the spot.

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, 19888, if recommended.

Not recommended at present

5. Scientific Mining

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

a.Type of prospecting : 8 nos
and exploration i.e.
pitting, drilling Nil

B. Working (Rule 13)

a.Number and size of : No. of Pit-,
each pit (LxWxH) 440mx420mx124m No. of Pit-,
440mx420mx124m

b.Bench : Regular 10-8
size(LxWxH)length can (Width) x 8
be defined as (Height) x 8
regular/irregular (Height)

c.Ore to waste ratio : 1:3.39
pit wise if possible 1:2.78
otherwise for mine

d.Total area covered : 18.672 Ha
under excavation/pits 18.672 Ha

C. Waste disposal (Rule 13)

a.Location of dumps : Dump- 1(495 X,
1070Y) Dump- 1(495 X, 1070Y)
Dump-2(1110X, 990Y) Dump-2(1110X, 990Y)
Dump-3(1200X, 200Y) Dump-3(1200X, 200Y)

e.Yearly generation : 17,16,031cum
of waste quantity. 3,77,220 cum

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

c.Total area covered : 33.95 Ha.
under waste dump. 33.95 Ha.

d.No.and size of each :
waste dump with No of
steps/lift/bench Dump-1: Size of a part
of the dump at present
is 432 m Long x 212 m
wide x 60 m in average
and the other part is
385 m x 71 m x 12 m.
Dump-2: 250 m Long x
195 m wide x 40 Height.
Dump-3: 366 m Long x
380 m wide x 60 High

D. Production

b.Year wise : 2014-15 : 350100 t 2014-15 : 341052.5 t
production of last
five year.

D. Reserve

a. Reserve position as :
per latest MP/MS and
at the time of
inspection.

Classification
Code Quantity Grade
Proved Mineral Reserve
111
22130000.000
+10%Cr2O3
Probable Mineral Reserve
121 and 122
8530000.000 +10%Cr2O3
Measured Mineral
Resource 331
3620000.000 +10%Cr2O3
Indicated Mineral
Resource 332
2810000.000 +10%Cr2O3

RESERVE POSITION AS ON 01/04/2015

CHROMITE		
Category	Quantity in Tonnes	Grade
Proved	22130000	+10% Cr2O3
Probable	8530000	+10% Cr2O3
Possible	6430000	+10% Cr2O3
Total	37090000	+10% Cr2O3

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
CHROMITE	341052	TON

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

Efforts for improving low grade and sub grade mineral. : Low grade ores are being beneficiated in the COB plant installed in the mining lease area.

Efforts for improving percentage of recovery of ore. : Efforts are doing to improve the recovery by study through third party.

Mineral Rule 15

Percentage of recovery of ore : 99%
pitwise w.r.t. ROM and total material

Number of benches in ore and waste. : Waste
18 benches in South side and
12 benches in North side
Ore
11 benches in ore.

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : 2014-15: 40732.379 t
2015-16: 80,770 t up to Feb. end
& available as on 29.02.2016. is 269179.885 t

Number and size of each stack : One No.: 140mX100mX6m

Location of stacking. : 1073N-1116N/1289E-1402E

Separate stacking from waste : Sub grade mineral are stacked in separate yard.

Total area covered for stacking : 2.07 Ha

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
39		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015

Overburden/waste removed (in m3) : 1183351

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. : Plain land
- c. Soil and land use pattern : No top soil is being generated at present.
Land use
- | | Under forest | |
|---|--------------|-------|
| Outside forest | | Total |
| (i) Covered under current (O/C) workings | 0 | 18.47 |
| | | 18.47 |
| (ii) Used for waste disposal | 0 | 33.95 |
| (iii) Occupied by plant, buildings, residential, welfare buildings & roads | 0 | 2.25 |
| | | 2.25 |
| (iv) Used for any other purpose (specify) Haul road, Safety zone, LG ore dump, COB tailing yard etc | 9.793 | 0 |
| | | 9.793 |
- d. Agriculture : No Agricultural within lease area.
- e. Forest(flora and fauna) : Complete lease area is forest land and completely degraded for mining operations.
- f. Vegetation : Around 15750 nos. of saplings has been planted inside the lease hold area.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : No

B Water environment.

- a. Surface water : The surface water monitoring is going at three locations i.e up-stream, down-stream & confluence point of Damsala Nalla on quarterly basis. The analysis report of surface water quality is found within permissible limit
- b. Ground water : Mining operations intersected ground water table. Mine water will be pumped out and subject to ETP and discharge to natural water course.

C. Air environment

- a. Noise : The day& night noise level monitoring in dB(A) is carried out in ambient & work zone locations. and are within permissible limit
- b. Air : There are six nos of ambient air quality monitoring locations present in core as well as buffer zone of the mine lease hold area. The analysis report shows within permissible limit.

D. Socio economic environment

- a. Social and demographic profile. : The people of this area tribal and backward. their main source of income was agricultural, but due to

starting of mines in the area substantial no. of persons belongs to the villages in sukinda valley are employed in mines. They are directly and indirectly employed

b. Recommending health and safety. : Provided subsidized canteen, free medical facility inside mines, IME & PME for each employee as per mines rule, vocational training to each employee, providing personal protective equipment (PPE) to all employee, arranging medical camp inside & outside ML area.

d. Recreational facility. : Provision of sports goods for nearby villages.

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.
Within lease area			Outside lease area			
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate	
6.25	18565	97	3	9770	96	

<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.

1 .Cost of operation : 2242.04 /ton
 2.Reserve :

Classification Code Quantity Grade

Proved Mineral Reserve 111 22130000.000 +10%Cr2O3

Probable Mineral Reserve 121 and 122 8530000.000 +10%Cr2O3

Measured Mineral Resource 331 3620000.000 +10%Cr2O3

Indicated Mineral Resource 332 2810000.000 +10%Cr2O3

3.Production : 341052.5 MT

4. Pit's Mouth Value :

Lumps

Below 40% Cr2O3- Rs 4062.00; 40% to below 52% Cr2O3- Rs.3770.00

Fines

(a) Below 40% Cr2O3 : Rs 2391, (b) 40% to below 52% Cr2O3- Rs.11841, (c)52% Cr2O3 and above-Rs 14523

C. Concentrates- Rs 11050.

5. Stock : 3,11,022 MT Chromite and 7622.094 MT Concentrate.

6. Land use

	Under forest	Outside forest	Total
(i) Covered under current (O/C) workings	0 18.47	18.47	
(ii) Used for waste disposal	0	33.95	33.95
(iii) Occupied by plant, buildings, residential, welfare buildings & roads	0	2.25	2.25
(iv) Used for any other purpose (specify) Haul road, Safety zone, LG ore dump, COB tailing yard etc	9.793	0	9.793

7. Fixed assets : Rs 6653.71 lacs

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.)

Date :

(SHRI IBRAHIM SARIF)

Indian Bureau of Mines