

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-3/BBS

Mine code : 300RI13010

- (i) Name of the Inspecting : **AR**) **SHRI PREM PRAKASH**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Dr. Khageswar Mahanta (AVP)
Official with
Designation
- (iv) Date of Inspection : 25/07/2015
- (v) Prev.inspection date : 12/01/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KOIRA**
- (b) Category : A Manual
- (c) Type of Working : Opencast
- (d) Postal address
State : ORISSA
District : SUNDARGARH
Village : KOIRA
Taluka : BONAI
Post office : KOIRA
Pin Code : 770048
FAX No. : 06767-279218,275367
E-mail : kjr_emailbb@sancharnet.in,er
Phone : 06767-279209,275489
- (e) Police Station :
- (f) First opening date : 27/08/1971
2. Address for : VILLAGE. KOIRA, PO: KOIRA
correspondance TALUK. BONAI
DIST. SUNDERGARH, ORISSA, PIN- 770048
3. (a) Lease Number : ORI0148
(b) Lease area : 90.14
(c) Period of lease : 20
(d) Date of Expiry : 26/08/2021
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : ESSEL MINING& INDUSTRIES LTD.
 AT/PO: BARBIL KEONJHAR
 ORISSA
 Phone:06767-30437
 FAX :06767-75367

Owner : ASWANI KOTHARI(NOMINATED OWNER)
 GOLD CORNET,FLOT NO 4 11,
 NAWRAJEE GAMADIA ROAD
 MUMBAI MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone:
 FAX :

Agent : RAVINDRA GAJANAN SATHE
 KASIA IRON & DOLOMITE MINES
 M/S ESSEL MINING &
 INDUSTRIES LTD KASIA,PO-
 BARBIL, KEONJHAR KEONJHAR
 ORISSA
 Phone:
 FAX : 06767 275367

Mining Engineer

Name : SUNIL KUMAR SINHA,Full Time
 Qualification : B E MINING
 Appointment/ : 11/06/2012
 Termination date

Geologist

Name : JAYHARI MOHANTA,Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 10/12/2011
 Termination date

Manager

Name : SHATRUJIT KUMAR
 Qualification : B E MINING
 Appointment/ : 13/10/2010
 Termination date

6. Date of approval of Mining :
 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		
Workers	7	305
Plant	11	305
Ministrial	4	305
Others	3	305

Supervisory	14	305
Managerial	50	305
CONTRACT		
Plant	15	305
Workers	329	305
Others	196	305
Supervisory	11	305
Ministrial	2	305
Managerial	3	305

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					
Health	23.79	23.99	7.20	1.80	Mobile Medical U
Water supply			15.50	0.00	Laying of Pipeli
Sanitation	19.60	15.00	24.00	2.99	Construction of
Sub total	43.39	38.99	46.70	4.79	
Infrastructure					
Public transport	33.00		20.36		Repairing of Koi
Sub total	33.00		38.99		
Recreation	1.00	4.50	1.00	2.00	Tournaments & Sp
Others	29.40	18.00	22.40	7.18	
Total	106.79	69.20	82.75	13.97	

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

After last inspection on 11.01.2015, No Violation was pointed out.

During current inspection, compliance of MCDR,88 was also observed to be satisfactory.

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

5. Scientific Mining

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

a.Type of prospecting : Nil
and exploration i.e.
pitting, drilling 27 BHs

b.Total area covered : Nil 17 Ha. approx.

B. Working (Rule 13)

c.Ore to waste ratio : 1:0.06
pit wise if possible
otherwise for mine 1:0.02

b.Bench : Bench size
size(LxWxH)length can (w x h)= 15 m X 9
be defined as m Bench size
regular/irregular (w x h)= 15 m X 9 m
Approx..

a.Number and size of : One pit i.e. Pit
each pit (LxWxH) No. 6 One pit i.e. Pit No. 6

d.Total area covered : Not specified for
under excavation/pits a year About 32 ha. cumulative

C. Waste disposal (Rule 13)

a.Location of dumps :
Back filling of SE
portion of
exhausted Quarry
No.6 Back filling of
exhausted portion of
Quarry No.6

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

c.Total area covered : Nil
under waste dump. Nil

d.No.and size of each : Back filling of
waste dump with No of excavated portion
steps/lift/bench of quarry No.6 Back filling of
exhausted portion of
Quarry No.6

e.Yearly generation : 182992 Tonne
of waste quantity. 36624.91 Tonne

RESERVE POSITION AS ON 01/04/2015**PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015**

Mineral	Production	Unit
IRON ORE	1499159.61	TON

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

Efforts for improving low grade and sub grade mineral. : Crushing & Screening of ROM and blending

Efforts for improving percentage of recovery of ore. : 100% recovery wrt. ROM

Mineral Rule 15

Percentage of recovery of ore : 100% wrt. ROM
pitwise w.r.t. ROM and total material

Number of benches in ore and waste. : 8 benches in ore and 0 in waste

Sub/grade mineral/fines (Rule 16)

Qty of yearly generation and total qty available during inspection with grade : 2014-15: 158189 MT
(Below 55% Fe lump & fines)

Number and size of each stack : 04nos.

Location of stacking. : Subgrade Dump No.2,3 4 & 5 & Temporary Subgrade Dump.

Separate stacking from waste : Yes

Total area covered for stacking : about 5 Ha

Exploration data as on 31/03/ 2015

No. of Boreholes

No. of Pits

No. of Trenches

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015**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 mining lease area is having two distinct hillocks. The two hillocks in the northern & southern portion are trending in NE-SW. The entire hillock is undulating.
- b. Aesthetic environment : satisfactory
- d. Agriculture : Not within lease area
- e. Forest(flora and fauna) : Local species
- f. Vegetation : Vegetation is only destroyed at excavation area. in other part of lease Vegetation is maintained.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : Nil

B Water environment.

- a. Surface water : The following parameters are being analyzed. pH, BOD, COD, Cl, F, Ca, Mg, Mn, SO₄, NO₃, Hg, Cd, Turbidity, Total Hardness etc. The results of all parameters are within the permissible limit during 2014-15.
- b. Ground water : The following parameters are being analyzed. pH, BOD, COD, Cl, F, Ca, Mg, Mn, SO₄, NO₃, Hg, Cd, Turbidity, Total Hardness etc. The results of all parameters are within the permissible limit during 2014-15.
- c. Quality of water : The following parameters are being analyzed. pH, BOD, COD, Cl, F, Ca, Mg, Mn, SO₄, NO₃, Hg, Cd, Turbidity, Total Hardness etc. The results of all parameters are within the permissible limit during 2014-15.

C. Air environment

- a. Noise : Regular noise monitoring is being carried out .The noise level is within permissible limits.
- b. Air : Monitoring of Ambient air quality is being done regularly. Dust suppression measures like water sprinkling through mobile water tanker being undertaken.
- c. Climatic condition : Maximum temperature = 45°C
Minimum temperature = 5°C
Average Relative Humidity = 58%-67%
Average Annual Rainfall = 1500 mm

(As per Meteorological data of Sundergarh District)

D. Socio economic environment

- a. Social and demographic profile. : As reported, local tribal are encouraged for employments.
- b. Recommending health and safety. : For First-Aid and Emergency One dedicated Medical team is available 24x7 at the Mine site. management is providing the ambulance facility to the mine staff as and when required for treatment in the Central Hospital and referral hospital.
- c. Human settlement : No human settlements within the lease hold area.
- d. Recreational facility. : Provided in colony.

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.

- 1) Cost of operation : Rs. 739.20
- 2) Reserve : Iron Ore 50.06 Million Tone (111) as on 01.04.2015
- 3) Production : 1499159.61 MT
- 4) Pit's Mouth Value : Rs. 2042.00 (Average)
- 5) Stock : 121024.30 (Opening Stock of processed Ore as on 01.04.2015)

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.)

Nil

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

Nil

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

Nil

Date :

(SHRI PREM PRAKASH)

Indian Bureau of Mines