

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-16/BBS

Mine code : 11ORI19022

- (i) Name of the Inspecting : **25**) **SHRI IBRAHIM SARIF**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri Patra, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 14/03/2016
- (v) Prev.inspection date : 11/03/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KALARANGIATTA**
- (b) Category : A Other Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : JAJPUR
- Village : KALARANGIATTA
- Taluka : SUKINDA
- Post office : KALARANGIATTA
- Pin Code : 755028
- FAX No. :
- E-mail :
- Phone :
- (e) Police Station :
- (f) First opening date : 01/01/2012
2. Address for : KALARANGITTA CHROMITE MINE
correspondance FERRO ALLOYS CORPORATION LTD
KALIAPANI, SUKINDA, DIST- JAJPUR
3. (a) Lease Number : ORI0846
- (b) Lease area : 23.8
- (c) Period of lease : 30
- (d) Date of Expiry : 17/04/2038
4. Mineral worked : CHROMITE Main

5. Name and Address of the

Lessee : FERRO ALLOYS CORPN. LTD
 Shri Rohit Saraf, Joint
 Managing Director & Nomited
 Owner Ostapal, Kathpal &
 Boula Chromite M BHADRAK
 ORISSA
 Phone:06784-251312, 250598, 250311
 FAX :06784-251782

Owner : FERRO ALLOYS CORPORATION LTD
 LAXMI BHAWAN, KUANS
 BHADRAKH JAJPUR ORISSA
 Phone:
 FAX :

6. Date of approval of Mining : 28/03/2013
 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	2	305
Supervisory	6	305
Others	2	305
CONTRACT		
Others	3	305
Workers	11	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					
Infrastructure					
Sub total					
Sub total					
Total					

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

For non compliance of violation of rule 13(1) of MCDR 1988 during earlier inspection of mines by the undersigned on 11/03/2015, it was approved to prosecute the party. During present inspection violation of rule 13(1) of MCDR 1988 was observed and communicated to the party 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, 1988, 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 :
and exploration i.e.
pitting, drilling

2013-14 : 2 no. of Bore
holes, 64.5 meterage of
drilling
2014-15 : 34 no. of
Bore holes, 797 meterage
of drilling

B. Working (Rule 13)

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

c.Ore to waste ratio : 1 : 3.4 1 : 2.2
pit wise if possible
otherwise for mine

a.Number and size of : Single Pit : 230 x 275
each pit (LxWxH) x 26.8

d.Total area covered : 6.81 Ha 6.32
under excavation/pits

C. Waste disposal (Rule 13)

a.Location of dumps : North Side of North Side of lease area
lease area

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

c.Total area covered : 1.8 Ha 1.78 Ha
under waste dump.

d.No.and size of each : Single Terrace of Single Terrace of 15
waste dump with No of 15 meters height meters height
steps/lift/bench

e.Yearly generation : 145000 cum 121741 cum
of waste quantity.

RESERVE POSITION AS ON 01/04/2015

CHROMITE		
Category	Quantity in Tonnes	Grade
Proved	434300	42.81% Cr2O3
Probable		
Possible	2347100	39 % Cr2O3
Total	2781400	

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
CHROMITE	48345	TON

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

Efforts for improving low grade and sub grade mineral. : 6862.216 MT of low grade ore as on 01.04.2015 was produced and stocked seperately

Mineral Rule 15

Number of benches in ore and waste. : Ore 2
Waste 5

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
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OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015

Overburden/waste removed (in m3) :	241702
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Utilisation of Sub Grade Mineral and Mineral Rejects

Generated	Utilised	Stacked	(In Ton.)
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7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : ENTIRE LEASE HOLD AREA IS A FLAT TERRAIN HAVING GENTLE SLOPE OF 20 DEGREE TOWARDS NORTH-WEST.
- b. Aesthetic environment : plantation of safety zone of 7.5 meters along lease boundary had been carried out by the lessee to improve aesthetic beauty.
- c. Soil and land use pattern : Area Degraded by pit :6.320 Ha
do..... dump : 1.78 Ha
do..... road : 1.550 Ha
do..... ETP/ building : 0.29 Ha
- d. Agriculture : THERE IS 0.797 HA OF AGRICULTURE LAND INSIDE THE LEASE AREA.
- e. Forest(flora and fauna) : THERE IS NO FOREST LAND NOR FOREST GROWTH INSIDE THE LEASE HOLD AREA.
- f. Vegetation : NO VEGETATION.
 1260 NUMBER OF SAPLINGS HAVE BEEN PLANTED IN AN AREA OF 0.504 HA DURING THE YEAR 2014-15.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : NO PUBLIC BUILDING, MONUMENTS ETC INSIDE LEASE HOLD AREA.

B Water environment.

- a. Surface water : THERE IS NO SURFACE WATER BODY INSIDE THE CORE ZONE. PUMPED OUT WATER FROM THE MINE IS BEING TREATED AT THEIR ETP FOR CR+6 AND SUSPENDEDED SOLIDS. SURFACE RUNOFF WATER IS ALSO DISCHARGED TO OUT SIDE THROUGH SETTLING POND.
- c. Quality of water : MONITORING OF QUALITY OF WATER FROM SURFACE WATER BODY AND GROUND WATER BODY HAS BEEN DONE ON QUARTERLY BASIS.
 THE ANALYSIS REPORT OF MINE DISCHARGE WATER , SURFACE WATER BODY AND GROUND WATER BODY ARE WITH IN PERMISSIBLE LIMIT.
- b. Ground water : GROUND WATER SEEPAGE FROM MINE HAS BEEN PUMPED OUT AND TREATED THROUGH ETP BEFORE DISCHARGE TO OUTSIDE LEASE AREA.

C. Air environment

- a. Noise : PRESENT NOISE LEVEL IN WORK ZONE IS permissible limit .
- b. Air : WATER SPRAYING IS BEING CARRIED OUT ON THE HAUL ROADS, LOADING, UNLOADING POINTS AND ORE HANDLING YARD AT REGULAR INTERVAL TO SUPPRES DUST GENERATION. AIR QUALITY MONITORING IS REGULARLY CARRIED OUT AT CORE AND BUFFER ZONE STATIONS ON QUATERLY BASIS.
- c. Climatic condition : THE MAXIMUM TEMP IS 46 DEGREE C AND THE MINIMUM TEMP IS 11 DEGREE C.

D. Socio economic environment

- b. Recommending health and safety. : THE MINE MANAGEMENT IS RUNNING A DISPENSARY FOR ITS EMPLOYEES AND NEARBY VILLAGERS WITH FREE CHECKUP AND MEDICINES.
- c. Human settlement : NO HUMAN SETTLEMENT WITHIN THE LEASE AREA.

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.
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<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.

FOR THE YEAR 2014-15

1. Cost of production per tonne of ore/mineral produced : Rs. 2553.58

2. Reserves and Resources

3. Reserves and Resources estimated at the end of the year

Classification	Code	Quantity	Grade
Proved Mineral Reserve	111	434300.000	42.81
Prefeasibility Mineral Resource	221 and 222	2347100.000	46.14
Inferred Mineral Resource	333	649500.000	46.22 & 33.00

3. Production 48345.627 MT

4. Stocks as on 1.4.2015 : 17853.517 MT

5. Land use Pattern :

12. Lease area (surface area) utilisation as at the end of year (hectares)

Total

(i) Already exploited & abandoned by

opencast (O/C) mining 0

(ii) Covered under current (O/C) workings 6.67

(iii) Reclaimed/rehabilitated 0

(iv) Used for waste disposal 2.92

(v) Occupied by plant, buildings, residential, welfare buildings & roads 2.35

Total 8.585

(vii) Work done under progressive mine

closure plan during the year 0.79

(viii). Value of Fixed Assets* (Rs.'000) (In Respect to the mine, beneficiation plant, mine, workshop, power and water installation : 1019674000.00

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