

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-8/BBS-16/3/2K

Mine code : 11ORI19008

- (i) Name of the Inspecting : 25) SHRI IBRAHIM SARIF
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 15/03/2016
- (v) Prev.inspection date : 14/12/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : SUKRANGI
- (b) Category : A Other than Fully Mech.
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : JAJPUR
- Village : SUKRANGI
- Taluka : SUKINDA
- Post office : KALIAPANI
- Pin Code : 755047
- FAX No. : 0674-461629
- E-mail :
- Phone : 0674-402220,404323,410169
- (e) Police Station :
- (f) First opening date : 01/08/1989
2. Address for : VILL: SUKRANGI, PO: KALIAPANI
correspondance POLICE STATION: TOMKA
DIST: JAJPUR, ORISSA, PIN755047
3. (a) Lease Number : ORI0240
- (b) Lease area : 382.71
- (c) Period of lease : 20
- (d) Date of Expiry : 19/09/2000
4. Mineral worked : CHROMITE Main

5. Name and Address of the

Lessee : M/S Orissa Mining Corporation Ltd
P.O.NO.34 OMC House
Bhubaneswar KHURDA ORISSA
Phone:
FAX :

Owner : m/s ORISSA MINING CORPORATION LTD
OMC HOUSE P.B.No.34
BHUBNESHWAR ORISSA
Phone:
FAX :

Agent : HALDHAR SAHOO Dy G.M.(MINES)
SUKRANGI/KALIAPANI CR MINES
M/S OMC LTD P.O.KALAAPANI
JAJPUR ORISSA
Phone: 06726-20251
FAX : 06726-20281

Geologist

Name : T.P.MOHANTY, Full Time
Qualification : M.Sc (GEOLOGY)
Appointment/ : 01/09/1995
Termination date

Manager

Name : S.MOHANTY
Qualification : AMIE(MINING)
Appointment/ : 27/03/2002
Termination date

Manager

Name : D.P.MOHANTY
Qualification : DIPLOMA WITH 2nd CLASS COMPETANCY CERTIF
Appointment/ : 11/05/0199
Termination date

6. Date of approval of Mining : 22/08/2014
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	8	307
Others	21	
Workers	57	
Supervisory	4	307

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.

There was no outstanding violations. during current inspection violations of rule 13(1), 16(1), 27(4) of MCDR 1988 was pointed out 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, 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 : 22 no. of Bore and exploration i.e. pitting, drilling
 holes, 6550 meterage
 3 no. of bore holes,
 202.2 meterage

B. Working (Rule 13)

a.Number and size of : 1150 x 225 x 54
 each pit (LxWxH)

c.Ore to waste ratio : 1 : 4.4
 pit wise if possible
 otherwise for mine
 1: 5.25

d.Total area covered : 39.4 Ha
 under excavation/pits
 39.4 Ha

C. Waste disposal (Rule 13)

a.Location of dumps :
 Dump-1 : N21003'6.5" E
 85048'50.8"
 Dump-2: N21002'30.3" E
 85048'38.3"
 Dump-3: N21002'47.5" E
 85048'55.4"

e.Yearly generation : 2014-15 : 721954
 of waste quantity. cum
 2015-16 : 561784
 cum
 2014-15 : 264113 cum
 2015-16 : 677845 cum as
 on date of inspection

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

d.No.and size of each : 3 Nos.
 waste dump with No of
 steps/lift/bench
 Dump-1 : 320m x 250m, 1
 terrace
 Dump-2 : 700m x 200m, 3
 terrace
 Dump-3 : 320m x 250m, 1
 terrace

D. Production

b.Year wise : 2014-15 : 1,30,000
 production of last T
 five year. 2015-16 : 1,30,000
 T
 2014-15 : 55,225.83 T
 2015-16 : 94,575 T (as
 on date of Inspection)

D. Reserve

a.Reserve position as :
 per latest MP/MS and
 at the time of
 inspection.
 Classification
 Code Quantity
 Grade
 Proved Mineral Reserve
 111 5.360 +10 Cr2O3
 In Million
 Tonnes

content
 Feasibility Mineral
 Resource 211 9.500 +10
 Cr2O3 content

RESERVE POSITION AS ON 01/04/2015

CHROMITE		
Category	Quantity in Tonnes	Grade
Proved	5360000	+10 Cr2O3 content
Probable	0	
Possible	9500000	+10 Cr2O3 content
Total	14860000	

PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015

Mineral	Production	Unit
CHROMITE	50225	TON

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

Efforts for improving low grade and sub grade mineral. : Blending with high grade ore

Mineral Rule 15

Number of benches in ore and waste. : Waste : 8 nos.
Ore : 1 no.

Percentage of recovery of ore pitwise w.r.t. ROM and total material : 44%

Sub/grd mineral/fines (Rule16)

Qty of yearly generation and total qty available during inspection with grade : 2014-15 : 63855 MT

Total area covered for stacking : 37.61 Ha

Separate stacking from waste : Yes. However, during inspection low grade ore found dumped in waste dump yard.

Location of stacking. : Northern side of the quarry.

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
172		28

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015

Overburden/waste removed (in m3) :	264113
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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 instant lease area is plain land, is gently sloping towards North.
- b. Aesthetic environment : The impact on land use in buffer zone due to mining activities within the leasehold is insignificant.
- c. Soil and land use pattern : No top soil is generated.

	Under forest	Outside forest
Total		
(i) Covered under current (O/C) workings	12.5	11
23.5		
(ii) Used for waste disposal		2.76
15.6	18.36	
iii) Occupied by plant, buildings, residential, welfare buildings & roads		
13.22	33.14	46.36
(iv) Used for any other purpose (specify)		
Sub grade dump & Ore stack yard	106.68	20
126.68		

- d. Agriculture : Non Forest Non irrigated agriculture land inside the lease area is 47.92 Ha. But no impact to the agricultural land due to mining.
- e. Forest (flora and fauna) : Vegetation lost since then in meager as in the pre-mining period tree growth was scarce and the vegetation was mostly shrubs and bushes.
- f. Vegetation : In order to restore the green cover afforestation has been undertaken. Company has already initiated the afforestation work in a planned manner.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : No such Public building, places and monuments (protected, historical), place of worship and places of tourist is present in the lease area.

B Water environment.

- a. Surface water : Settling ponds, check dams has not been maintained as per the catchment area. Further de-silting of settling pond has not been carried out.
- b. Ground water : Ground water is intersected in the bottom bench in this year only. No pumping of ground water is required at present. No much impact due to mining.
- c. Quality of water : Potable

C. Air environment

- a. Noise : Quarterly monitoring of noise is being carried out. All the parameters are within limit
- b. Air : Air environment of the mines is being protected by adoption of the following practices/technologies:
1. Regular water sprinkling to suppress dust

generation during movement of dumpers.
 2. Speed limit instruction is given to all transporters to limit dust generation. Quarterly monitoring is being carried out. All parameters are within permissible limit.

- c. Climatic condition : One metrological station has been installed at the office building to record the temperature, pressure, rainfall, wind speed, direction, solar radiation etc. During summer from March to middle of June, the maximum temperature varies from 24 degree to 42.8 degree. During the rains i.e from mid-June to mid-October, south west rains cover the area with precipitation varying between 1200-1400mm. Autumn lasts from mid-November with pleasant weather having temperature between 180 to 330

D. Socio economic environment

- a. Social and demographic profile. : The area has primarily forest and fallow land. Most of the smaller villages and hamlets consist of a single tribe or caste population. The major scheduled tribes are Munda, Khadia, Ganda, Oroan, etc. however the scheduled caste communities are Hadi, Pana, Doma, Mochi, Chamara etc. The two communities together constitute approximately 40% of the total population of the Tahsil.
- b. Recommending health and safety. : IME & PME has been carried out of all workers & employees. Health camp checkup is being organised by the lessee, provision of supplying free medicines to the villagers (including employees) are provided
- c. Human settlement : There is no habitat in the core zone. however As per 2001 Census 74049 persons inhabited within buffer zone of mining lease area. The male and female contribute 51.0% and 49.0%.are .
- d. Recreational facility. : Free housing, electricity, water, conveyance allowance, medical facilities, LTC, bonus and other hosts of welfare facilities are being provided to the workers and other employees..

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
1	2950	50			

TOP SOIL MANAGEMENT
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.

2014-15

1. Cost Of Production : 3577.10

2. Reserves

Classification	Code	Quantity	Grade
Proved Mineral Reserve	111	5.360	+10 Cr2O3 content
Feasibility Mineral Resource	211	9.500	+10 Cr2O3 content

3. Production : 50225.83 Tonnes

4. Pit Mouth Value:

Fines : i) 40% to below 52% Cr2O3- Rs.9846.12
 ii) 52% Cr2O3 and above - Rs. 19733.20

5. Stock: 61010.916 Tonnes

6. Land use pattern (in Ha):

	Under forest	Outside forest	Total
(i) Covered under current (O/C) workings	12.5	11	23.5
(ii) Used for waste disposal	2.76	15.6	18.36
(iii) Occupied by plant, buildings, residential, welfare buildings & roads	13.22	33.14	46.36
(iv) Used for any other purpose (specify) Sub grade dump & Ore stack yard	106.68	20	126.68

7. Fixed Assets (Rs.'000) : 5063047.95

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