

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/KJR/MCDR-3/BBS

Mine code : 11ORI08001

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri G Sahoo, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 27/09/2019
- (v) Prev.inspection date : 19/03/2019

PART-I : GENERAL INFORMATION

- 1. (a) **Mine Name** : **BANGUR (OMC)**
- (b) **Registration NO.** : **4269/IBM/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Underground**
- (e) **Postal address**
State : **ORISSA**
District : **KEONJHAR**
Village : **BANGUR**
Taluka : **HATADIHI**
Post office : **DHANURJAYPUR**
Pin Code : **758078**
FAX No. : **06731-279057**
E-mail : **omcbangur@gmail.com**
Phone : **06731-279948,279057**
- (f) **Police Station** : **Soso**
- (g) **First opening date** : **25/01/1980**
- (h) **Weekly day of rest** : **SUN**
- 2. **Address for correspondance** : **BANGUR CHROMITE MINE, M/S OMC LTD
P.O.DHANURJAYAPUR, DIST: KEONJHAR
ORISSA-758078**
- 3. (a) **Lease Number** : **ORI0249**
- (b) **Lease area** : **139.98**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **01/09/1995 2025**
- 4. **Mineral worked** : **IRON ORE** Associated
CHROMITE Main

5. Name and Address of the

Lessee : O.M.C.LTD.
 SRI.G.K.DHAL,MD OMC House
 ,P.B.No.34 BHUBANESWAR
 KHURDA ORISSA
 Phone:
 FAX :0674-401629(BBSR),06767-30257

Owner : m/s ORISSA MINING CORPORATION LTD
 OMC HOUSE P.B.No.34
 BHUBNESHWAR ORISSA
 Phone: 2393431
 FAX : 2391629

Agent : SHRI BIJAY KUMAR BEHERA
 BANGUR CHROMITE MINE PO-
 DHANURJAYPUR KEONJHAR
 KEONJHAR ORISSA
 Phone:
 FAX :

Mining Engineer

Name : SHRI GHANSHYAM SAHOO,Full Time
 Qualification : DEGREE IN MINING ENGINEERING
 Appointment/ : 21/05/2016
 Termination date

Geologist

Name : SHRI P K NAIK,Full Time
 Qualification : MSC GEOLOGY, PHD
 Appointment/ : 29/09/2016
 Termination date

Manager

Name : SHRI GHANSHYAM SAHOO
 Qualification : DEGREE IN MINING ENGINEERING
 Appointment/ : 21/05/2016
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	FMCP under 23C(1)	21/02/2008
		Renewal under rule 24 MCR1960	03/04/2008
		Mining Scheme rule 12 MCDR1988	19/02/2010
		Mining Scheme rule 12 MCDR1988	21/07/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such specific proposal.	20 nos of boreholes were drilled as a part of explration during the year 2018-19.	Nil
1b	Exploration over lease area for geological axis 1 or 2	16 nos of boreholes were proposed during the year 2018-19 to brought area under G1/G2 level.	20 nos of boreholes were drilled as a part of explration during the year 2018-19.	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year		Thriveni earth Movers Pvt Ltd. Salem ,Tamilnadu and expenditure inccured was Rs.35158269.00	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	16 nos of boreholes were proposed during the year 2018-19 to brought area under G1/G2 level.	20 nos boreholes were drilled.	Nil
1e	Balance reserve as on 01/04/20	As per the approved document on 21.07.2015 the chrome ore reserves are 2.08 million tonnes and resources are 4.54 million tonnes.	after addition and depletion over period of time the chrome ore reserves are 2.08 million tonnes and resources are 4.54 million tonnes as on 01.04.2019.	Nil
1f	General remarks of inspecting officers on geology, exploration etc		The Bangur chromite deposit occupies the south eastern part of the Boula-Nuasahi ultramafic belt. Exploration is undertaken as per the proposal.	Nil

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Mine development is by Underground Mining with sub level open sotping.	Mine development is carried out by Underground mining with sub level open stoping method.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable.	Nil	Nil
2c	Stripping ratio or ore to OB ratio	Not applicable	Nil	
2d	Quantity of topsoil generation in m3	Not applicable	Nil	Nil
2e	Quantity of overburden generation in m3	12875 cu.m. was proposed to be generated from underground mine wrkings during the year 2018-19.	5880 cu.m. of waste was generated during the year 2018-19 by underground mine workings.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Mine is developed by underground mining method with sub level open stoping method.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Production is proposed by underground mining with sub level open stoping method.	Production is carried out by underground mining with sub level open stoping method.	Nil
3b	Quantity of ROM mineral production proposed	89650 t of ROM with 58750 t of ore.	22934 t of ROM with 11300 t of chrome ore.	Nil

3c	Recovery of sailable/usable mineral from ROM production	58750 t	11300 t	Nil
3d	Quantity of mineral reject generation	5785 t was proposed to be generated and blended with ore.	generated mineral rejects was blended with ore.	Nil
3e	Grade of mineral rejects generation and threshold value declared.	+10-30% Cr2O3	+10-30% Cr2O3	Nil
3f	Quantity of sub grade mineral generation.	Not applicable	Nil	Nil
3g	Grade of sub grade mineral generation	Not applicable	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting in underground is proposed.	Drilling & blasting in underground is carried out.	Nil
3k	Provision of mining machineries in mineral benches	Not applicable. As such no benches proposed due to underground mining.	Nil	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable.	Nil	
3m	Total area covered under excavation/pits	13.3 ha by abandoned opencast mine.	13.3 ha	Nil
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable	Nil	
3o	Total area put in use under different heads at the end of year	Total area 35.38 ha: abandoned opencast workings: 13.3 ha, waste disposal: 11.51 ha, infrastructure: 6.23 ha, mineral storage: 4.34 ha. at the end of plan period i.e. 2019-20.	Total area 35.38 ha: abandoned opencast workings: 13.3 ha, waste disposal: 11.51 ha, infrastructure: 6.23 ha, mineral storage: 4.34 ha.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15 - 23400 MT 2015-16 - 39770 MT 2016-17 - 55650 MT 2017-18 - 70810 MT 2018-19 - 89650 MT	2014-15 - Nil 2015-16 - Nil 2016-17 - 2109 MT 2017-18 - 18584 MT 2018-19 - 22934 MT	Mine was not in operation due to want of EC from 01/10/2011 to 27/05/2016 and reopened on 30/07/2016.
3q	General remarks of inspecting officers on method of mining etc.		production is carried out by underground mining method with sub level open stoping as proposed.	Nil

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No generation of top soil, OB and mineral rejects. However waste generated from underground mining is utilised for making roads in underground and dumped on the surface dump.	The waste generated from underground mining is utilised for making roads in underground and dumped on the surface dump.	
4b	Location of topsoil, OB and mineral reject dumps	waste dump-3, South easternside of the lease area.	waste dump-3, South easternside of the lease area.	Nil
4c	Number of dumps within lease area and outside of lease area	with in lease area. one no. of waste dump is proposed during the year 2018-19.	with in lease area one no of waste dump as waste dump-3	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL	Nil
4e	Number of active and alive dumps.	one no. dump	one no. dump	Nil
4f	Number of dead dumps.	Not applicable	Nil	
4g	Number of dumps established.	Not applicable	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	The retaing wall for the dump is already existing and no proposal for further construction of retaing walls.	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	Not applicable.	Nil	

4j	Number of settling ponds	Not applicable Nil		
4k	Specific comments of inspecting officer on waste dump management		waste dumping is carried out as per the proposal.	Nil

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not applicable.	Nil	Nil
5b	Area under backfilling of mined out area	Not applicable Nil		
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable Nil		
5d	Total area fully reclaimed and rehabilitated	Not applicable Nil		
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Plantation on the dump slope was undertaken.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yearly report is to be submitted.	submitted.	Nil

6b	Area available for rehabilitation (ha) .	Not applicable Nil		
6c	afforestation done (ha).	Not applicable Nil		
6d	No. of saplings planted during the year	500 nos during the year 2018-19.	500 nos	Nil
6e	Cumulative no .of plants	6500 nos	6500 nos	Nil
6f	Any other method of rehabilitation	Not applicable Nil		
6g	Cost incurred on watch and care during the year	75000	180000	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not applicable Nil		
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable Nil		
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable Nil		
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable Nil		

6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not applicable Nil		
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not applicable Nil		
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not applicable Nil		
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not applicable Nil		
6p	Compliance of environmental monitoring (core zone and buffer zone)	quarterly monitoring of air, water and noise levels are proposed	carried out.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures were implemented as proposed.	Nil

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting of mineral from ROM is proposed.	carried out.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	Nil
7c	Different grade of mineral sorted out at mines.	+52%Cr2O3, +40%Cr2O3 - 52%Cr2O3, below 40%Cr2O3	+52%Cr2O3, +40%Cr2O3 - 52%Cr2O3, below 40%Cr2O3	Nil
7d	Any beneficiation process at mines	Not applicable	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is carried out	

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable	Nil	
8b	Concurrent use or storage of topsoil	Not applicable	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed for waste rock generated from u/g .	carried out as proposed.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not applicable	Nil	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	500 nos planation on dumps	carried out	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 nos of saplings were proposed.	carried out.	
8g	Survival rate		70%	Nil
8h	Water sprinkling on roads to control airborne dust	Workings are confined to u/g. however water sprikling propsed on surface roads.	Water sprinkling is carried out.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Good environment and asethitic beauty is mainatined due to the underground mining activities.	Restriction of entry of 1 Km radius from Hadgarh Wildlife Sanctuary boundary by MOEF, India is maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Required to monhtly and annual returns submitted.	submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining engineer: 3, geologist: 4, diploma mining engineer: 5	Graduate Mining engineer: 3, geologist: 4, diploma mining engineer: 5	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Already exploited & abandoned opencast workings: 13.3 ha, waste disposal: 11.51 ha, plant, buildings etc.: 6.23 ha, mineral storage: 4.34 ha.	found to be in order.	Nil
9d	Scrutiny of Annual return on afforestation	500 nos	500 nos	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is Nil	found to be in order.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production cost Rs. 18091	Production cost Rs. 18091	Nil
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets is Rs. 3,39,47,964.00	Value of Fixed Assets is Rs. 3,39,47,964.00	
9k	Scrutiny of Annual return on mining machineries	air compressor: 3 of 450 cu.m/m.(2) and 1000 cu.m/m.(1), vetilation fan: 1 (64000 cu.m/h), generator: 3 nos(600 kwh)	found to be in order.	Nil

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed		Show cause position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on

Date : 3/12/19

no violation.

N. Kishan R
(RAMKISHAN R)

Indian Bureau of Mines