

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/SNG/MCDR-27/BBS

Mine code : 40ORI13052

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Ghanshyam Sharma, Owner
Official with
Designation
- (iv) Date of Inspection : 09/10/2017
- (v) Prev.inspection date : 20/05/2016

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BANDHAL**
- (b) **Registration NO.** : **IBM/630/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : BANDHAL
- Taluka : BONAI
- Post office : DUNGULA
- Pin Code : 770048
- FAX No. : 275605
- E-mail : kankadhara.mining@gmail.com
- Phone : 276186
- (f) Police Station : Koira
- (g) First opening date : 09/06/2003
- (h) Weekly day of rest : SAT
2. Address for : BANDHAL MN ORE MINES
correspondance : K.M& M P LTD
AT/PO-KOIRA, SUNDERGARH
3. (a) Lease Number : ORI1005
- (b) Lease area : 28.02
- (c) Period of lease : 20
- (d) Date of Expiry : 13/03/2022
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : KANAKDHARA MINING & MINERAL (P) LTD
 AT/PO-KOIRA SUNDERGARH
 SUNDARGARH ORISSA
 Phone:27686
 FAX :27686

Owner : GHANASHYAM SHARMA
 AT/PO-BARBIL KEONJHAR
 ORISSA
 Phone: 276186,276712
 FAX : 276186

Geologist

Name : SHRI RANJEET ROUT,Full Time
 Qualification : M.sc (Geology)
 Appointment/ : 01/04/2015
 Termination date

Manager

Name : SHRI AMESH KUMAR SHARMA
 Qualification : Diploma (Mining)
 Appointment/ : 05/06/2003
 Termination date

6. Date of approval of Mining	:	Modif.of approved Mining Plan	18/02/2009
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	19/02/2009
		Mining Scheme rule 12 MCDR1988	09/04/2013

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	13 boreholes were proposed in the year 2015-16	Nil	The proposed area consists of tenanted land which needs consent.
1b	Exploration over lease area for geological axis 1 or 2	No Proposal	Nil	No boreholes were proposed during 2016-17
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	No exploration carried out
1d	Balance area to be explored to bring Geological axis in 1 or 2	10.632 Ha needs to be explored	10.632 Ha needs to be explored to brought area under G1/G2 level.	Exploration proposed in the review period.
1e	Balance reserve as on 01/04/20	As per approved document on 09.04.2013 the reserves of manganese ore are 116749 toones and resources are 75701 toones	after depletion of reserves of manganese over the period the reserves left out are 111782 tonne and resources area 75701 tonnes as on 01.04.2017	Total reserves and resources as on 01.04.2017 of manganese are 187483 tonnes.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal was given for exploratio during the year 2016-17.	No exploration was carried out during the year 2016-17.	Area of 10.632 ha needs to be explored to brought under G1/G2 level.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Main pit in the eastern side of the lease area	Main pit developed in the eastern side of the lease area.	Development caried out as per proposal.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil will be generated. seperate benches of OB & Mn ore are propped.	No top soil is generated. seperate benches of OB & Mn ore are mainatined.	As per proposl maintained.
2c	Stripping ratio or ore to OB ratio	1:1.3 t:cu.m.	1:4.37 t:cu.m.	Average stripping ratio is varied due to irregular nature of ore deposit.
2d	Quantity of topsoil generation in m3	No proposal	Nil	No top soil generated
2e	Quantity of overburden generation in m3	5790 cu.m.	3660 cu.m.	waste generation is less due to less development and due to irregular nature of ore deposit.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No comment is offered.	Development is lagging behind against the proposal due to lack of market demand.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one main pit in the eastern side of the lease area.	carried out in main pit only.	production is carried out from main pit as per proposal.
3b	Quantity of ROM mineral production proposed	7463 tonnes	837.083 tonnes	Production is less due to less market demand.
3c	Recovery of sailable/usable mineral from ROM production	90%	73%	recovery is less due to iirregular nature of ore deposit.
3d	Quantity of mineral reject generation	Nil	Nil.	No generation of mineral reject.

3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil	Nil
3f	Quantity of sub grade mineral generation.	746 tonnes	224.424 tonnes	less production is due to less development.
3g	Grade of sub grade mineral generation	+10-25% Mn	+10-25% Mn	As per proposal.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual segregation	Manual segregation is carried out.	As per proposal.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	Nil	No studies carried out.
3j	Provision of drilling and blasting in mineral benches	Shorthole drilling & blasting is carried out occasionally.	shot hole drilling and blasting is carried out occasionally.	As per proposal.
3k	Provision of mining machineries in mineral benches	No machinery is deployed. excavation is by manual only.	No machinery is deployed. excavation is by manual only.	As per proposal.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	hieght of benches in overburden is 3m and in ore is 3m.	hieght of benches in overburden is 3m and in ore is 3m are maintained.	As per proposal.
3m	Total area covered under excavation/pits	3.5 ha which is upto the end of review period i.e. 2017-18	2.8 Ha covered under excavation for the year 2016-17.	Nil.

3n	Ore to OB ratio for the pit/mine during the year.	1:1.3 t:cu.m.	1:4.37 t:.cu.m.	stripping ratio is more due to irregular behaviour of ore deposit.
3o	Total area put in use under different heads at the end of year	total area put under utilisation is 8.32 ha at the end of review period i.e. 2017-18 and under different heads is under excavation: 3.5 ha, waste disposal: 1 ha, plants & biudlings:1.82 ha others: 2 ha	total area put under utlisation is 5.39 ha at the end of 2016-17 and under diffreent heads is under excavation: 2.8 ha, waste disposal: 0.77 ha, plants & Biudlings: 1.62 ha, others: 0.2 ha	Nil.
3p	Production of ROM mineral during the last five year period as applicable	2012-13: 8000 tonnes 2013-14: 4538 tonnes 2014-15: 5494 tonnes 2015-16: 6563 tonnes 2016-17: 7463 tonnes	2012-13: 1798 tonnes 2013-14: 1706.901 tonnes 2014-15: 1604.929 tonnes 2015-16: 818.035 tonnes 2016-17: 837.083 tonnes	less production due to less market demand.
3q	General remarks of inspecting officers on method of mining etc.	No comments to offer.	opencast mining is carried out with development in 1 no of pit.	Nil.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil is generated. one OB dump is proposed.	No top soil is generated. one OB dump is maintained.	Nil.

4b	Location of topsoil, OB and mineral reject dumps	one OB dump is proposed S-200, W-300	one OB dump is maintained S-200, W-300	Nil.
4c	Number of dumps within lease area and outside of lease area	within lease area-1. ou side lease area -0	within lease area-1. ou side lease area -0	Nil.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of UPL	out side of UPL.	Nil.
4e	Number of active and alive dumps.	One: OB dump	One: OB dump	Nil.
4f	Number of dead dumps.	Nil	Nil	Nil.
4g	Number of dumps established.	No Proposal	Nil	Nil.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Maintained	Nil.
4i	Length of Retaining wall or garland drain all along dumps	200 m length is proposed	200 m length is maintained.	Nil.
4j	Number of settling ponds	One no. is proposed	One no. is maintained.	Nil.
4k	Specific comments of inspecting officer on waste dump management	soild waste management dumping is proposed.	soild waste management dumping is carried out.	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.	No proposal	Nil	Nil.

5b	Area under backfilling of mined out area	No proposal	Nil	Area not matured for backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal.	Nil	No generation of top soil.
5d	Total area fully reclaimed and rehabilitated	No proposal.	Nil.	Nil.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Area not matured for backfilling	No back filling carried out.	Area not matured for backfilling.

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).	Annual report is submitted in due time.	Annual report submitted in due time.	submitted in stipulated time period.
6b	Area available for rehabilitation (ha) .	Nil	Nil	Area not matured for rehabilitation.
6c	afforestation done (ha).	0.2 Ha	0.2 Ha	Nil.
6d	No. of saplings planted during the year	500	1200	More plantation is carried out than the proposal.
6e	Cumulative no .of plants	4335	7160	more plantation is carried out than proposal.
6f	Any other method of rehabilitation	Nil	Nil	No proposal.
6g	Cost incurred on watch and care during the year	No proposal	Nil	No proposal.

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	quarterly monitoring of environmental parameters proposed through analytical agency.	quarterly monitoring is carried out.	As per proposal.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	plantation was proposed during the year 2016-17.	plantation is carried out during the year 2016-17.	Nil.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade wise sorting is proposed. +10-25%, +25%-35%,+35%-46% Mn	grade wise sorting is being carried out. +10-25%, +25%-35%,+35%-46% Mn	As per proposal.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	As per propoal.
7c	Different grade of mineral sorted out at mines.	+10-25%, +25%-35%,+35%-46% Mn	+10-25%, +25%-35%,+35%-46% Mn	As per proposal.
7d	Any beneficiation process at mines	No proposal.	Nil	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No beneficiation is proposed.	No beneficiation is carried out.	As per proposal.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No generation of top soil is proposed.	No top soil is generated.	As per proposal.
8b	Concurrent use or storage of topsoil	Nil	Nil	No top soil generated.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	One OB dump is proposed.	One OB dump is maintained.	As per proposal.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Nil	Area not matured for reclamation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500	1600	As per proposal.

8g	Survival rate	No proposal	65%	survival rate is 65%
8h	Water sprinkling on roads to control airborne dust	water sprinkling is proposed.	water sprinkling is carried out.	As per proposal.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	environment monitroing is proposed.	carried out.	as per proposal.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted	Submitted	submitted in stipulated time period.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	diploma mining engineer:1, Geologist:1, surveyor:1	diploma mining engineer:1, Geologist:1, Surveyor:1	Part time geologist appointed.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	opencast workings: 2.8 ha, waste disposal: 0.77 ha, plants&buildin gs: 1.206 ha, others: 1.2 ha.	Found in order	Nil
9d	Scrutiny of Annual return on afforestation	500	found in order	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	224 tonnes	found to be in order.	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM production found to be in order. is 837.083 tonnes closing stock is 0 tonnes		
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price is Rs 2539: +25% Mn: , Rs 3086: +25%-35% Mn , Rs 14687: +35%-46% Mn	Ex mine price is Rs 2539: +25% Mn: , Rs 3086: +25%-35% Mn , Rs 14687: +35%-46% Mn	Nil.
9h	Scrutiny of Annual return on fixed assets	fixed assests Rs 11,11,221	fixed assests Rs 11,11,221	
9k	Scrutiny of Annual return on mining machineries	Tipper: 6 cu.m: 1 no. pumps: 3 nos.	All mining machineries furnished in the AR are in order.	

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

Violation observed		Show couse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on
MCDR17 Rule 55(1)(3)	17/10/2017		

Date :

(RAMKISHAN R)

Indian Bureau of Mines