

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/MB/MCDR- 11/BBS

Mine code : 30ORI10005

- (i) Name of the Inspecting : SQ10) SHRI G.C. SETHI
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri B. R. Nayak, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 07/09/2019
- (v) Prev.inspection date : 07/04/2018

PART-I : GENERAL INFORMATION

1. (a) Mine Name : GORUMAHISANI
- (b) Registration NO. : IBM/1235/2011
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : MAYURBHANJ
Village : GORUMAHISANI
Taluka : RAIRANGPUR
Post office : GORUMAHISANI
Pin Code : 757042
FAX No. : 274219 (O), 274204 (R)
E-mail : gmspl2011@gmail.com
Phone : 9830338322
- (f) Police Station : Gorumahisani
- (g) First opening date : 07/01/1970
- (h) Weekly day of rest : TUE
2. Address for correspondence : AT/PO.GORUMAHISANI
TALUK.BAMANGHATY
DIST.MAYURBHANJ, ORISSA, PIN.757042
3. (a) Lease Number : ORI0118
- (b) Lease area : 1435.3
- (c) Period of lease : 30
- (d) Date of Expiry : 06/01/2000 31.03.2020
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : GHANASYAM MISHRA & SONS
 7-WATER COOL STREET
 CALCUTTA WEST BENGAL
 KOLKATA WEST BENGAL
 Phone:
 FAX :

Owner : Sourav Mishra
 AT/PO GORUMAHISANI Dist-
 MAYURBHANJ MAYURBHANJ
 ORISSA
 Phone: 06794-274219
 FAX : 06794-274380

Agent : Jagdish Mishra
 At + Post.- Mayurbhanj
 MAYURBHANJ ORISSA
 Phone: 06794-274219
 FAX : 06794-274380

Mining Engineer
 Name : Anup Samantha, Full Time
 Qualification : B Tech (Mining)
 Appointment/ : 21/10/2005
 Termination date

Geologist
 Name : Rakesh Mahanta, Full Time
 Qualification : M. Sc.
 Appointment/ : 05/06/2014
 Termination date

Manager
 Name : Bikash Ranjan Nayak
 Qualification : B-Tech (Mining)
 Appointment/ : 16/01/2010
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	31/12/2001
		Modif.of approved Mining Plan	09/11/2006
		Mining Scheme rule 12 MCDR1988	11/10/2007
		FMCP under 23C(1)	27/01/2010
		Modif.of approved Mining Plan	29/01/2010
		Mining Scheme rule 12 MCDR1988	16/03/2012
		FMCP under 23C(1)	09/11/2015
		Modif.approved Mining Scheme	10/03/2016
		MP review under 17(1) MCR 2016	31/03/2017
		MP modif under 17(3) MCR 2016	04/07/2018
		FMCP under 23C(1)	27/09/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There is no backlog.	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	G1 Level of exploration.	G1 level of exploration.	No borehole was drilled during 2018-19, for which violation under Rule 11(1) of MCDR, 2017 was issued.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	About 238.0 ha area to be explored under G1/G2 level of exploration.	About 249.0 ha area has been explored through 233 nos. of bore holes under G1 level of exploration as on 01.04.2018.	No borehole was drilled during 2018-19, for which violation under Rule 11(1) of MCDR, 2017 was issued.
1e	Balance reserve as on 01/04/20	The reserves & resources furnished in ther Review of Mining Plan approved on 31.03.2017 was for 8.3 MillionTonnes under proved (111) category and 9.1 MillionTonnes under 221 category.	The balance reserve as on 01/04/2019 are 13.14 MillionTonnes.	Nil
1f	General remarks of inspecting officers on geology, exploration etc		Total 275.83 ha area is explored under G1/G2 level. Potentially mineralised area has been explored under G1/G2 level of exploration..	Potentially mineralised area has been explored under G1/G2 level of exploration.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Kochar quarry, Kochar Top quarry, Kochar west quarry, Kisun Tanki quarry, RL 2550 & West block float quarry.	Kochar quarry, Kochar Top quarry, Kisun Tanki quarry & 2550 quarry.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and ore zone are envisaged.	Separate benches in OB and ore zone have been maintained.	There is no top soil benches.
2c	Stripping ratio or ore to OB ratio	Over all tripping ratio: 1:0.45	Actual over all tripping ratio: 1:0.44	Nil
2d	Quantity of topsoil generation in m ³	No topsoil exists.	Not applicable.	Nil
2e	Quantity of overburden generation in m ³	545045 cu.m	335738 cu.m	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The mine development is lagging behind due to want of MoEF clearance.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	06 pits	06 pits	Nil
3b	Quantity of ROM mineral production proposed	1099958 tonnes	747189 tonnes	The production is in lowerside due to lack of MoEF clearance.
3c	Recovery of sailable/usable mineral from ROM production			

3d	Quantity of mineral reject generation	231240 tonnes of mineral reject/sub-grade	73939 tonnes of mineral reject/sub-grade	The mineral reject is considered as the sub-grade also.
3e	Grade of mineral rejects generation and threshold value declared.	-58% to +45% Fe.	-58% to +45% Fe.	Nil
3f	Quantity of sub grade mineral generation.	231240 tonnes of sub-grade/mineral reject	73939 tonnes of sub-grade/mineral reject	Nil
3g	Grade of sub grade mineral generation	-58% to +45% Fe.	-58% to +45% Fe.	The sub-grade is considered as the mineral reject also.
3h	Manual / Mechanised method adopted for segregating from ROM	Provisions for mechanised and manual sorting envisaged.	Both mechanised and manual sorting is being practiced.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	Not applicable.	Nil
3j	Provision of drilling and blasting in mineral benches	DTH drilling of 100mm dia. Blast hole ANFO expositive as coloumn charge and booster alongwith delay detonator.	DTH drilling of 100mm dia. Blast hole with ANFO expositive as coloumn charge and booster as base charge alongwith delay detonator is being practiced for drilling and blasting.	Nil
3k	Provision of mining machineries in mineral benches	A fleet of mining machineries are proposed.	A fleet of mining machineries are deployed.	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Avarage 6m	Avarage 6m	Nil
3m	Total area covered under excavation/pits	72.248 ha in the modification period upto 2019-20.	An extent of 67.82 ha. covered under excavation pits.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.45	1:0.44	Nil
3o	Total area put in use under different heads at the end of year	Area proposed under different heads are Pit-75.557 ha, waste dump-20.054ha, Infrastructure -22.852, roads-12.995 ha & Mineral storage-13.64, others -1.9 ha upto 2019-20.	Area covered under different heads are Pit-67.82 ha, waste dump-15.40 ha, Infrastructure-22.852, roads-12.895 ha & Mineral storage- 13.64, others -1.9 ha by 2018-19.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 749880 tonnes 2015-16: 985877 tonnes 2016-17: 955581tonnes 2017-18: 746808 tonnes 2018-19:1099958 tonnes	2014-15: 646818 tonnes 2015-16: 259078.460tonnes 2016-17: 738009.53 tonnes 2017-18: 616952.90tonnes 2018-19:747189 tonnes	Nil
3q	General remarks of inspecting officers on method of mining etc.		The production from the mine was reported from 06 nos. of pits during 2018-19. DTH drilling of 100mm dia. Blast hole with ANFO explosive alongwith delay detonator is being used for drilling and blasting.	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 topsoil exists. Separate dumping for overburden/waste is envisaged.	Separate dump for overburden/waste is done.	There is no top soil generation during 2018-19
4b	Location of topsoil, OB and mineral reject dumps	NE and NW side of the lease area.	NE and NW side of the lease area.	Nil
4c	Number of dumps within lease area and outside of lease area	05 dump for overburden dumping is proposed.	05 nos. of overburden dumps are active.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	nIL
4e	Number of active and alive dumps.	05 nos. of dumps.	5 nos. of dumps.	Nil
4f	Number of dead dumps.	13 old dead dumps	13 old dead dumps	Nil
4g	Number of dumps established.	13 old dead dumps	13 old dead dumps	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Both Retaining wall & garland drains are envisaged.	Retaining walls and garland drains constructed around the dump.	Nil
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall of 339m & garland drain- 329m.	Retaining wall of 523.60m & garland drain- 413.25m constructed around the dumps.	Nil
4j	Number of settling ponds	No fresh Proposal.	Nil	Nil

4k	Specific comments of inspecting officer on waste dump management	Retaining walls and garland drains were constructed around dump and the slope of the dumps also stabilised by plantation. Dead dump has also been stabilised by plantation.	Nil
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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.	4.62ha	3.17ha	Nil
5b	Area under backfilling of mined out area	4.62ha	3.17ha	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No topsoil exists.	Not applicable.	Nil
5d	Total area fully reclaimed and rehabilitated	4.62ha	3.17ha	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		An extent of 3.17ha of mined out area has been reclaimed during 2018-19.	Nil

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 return on PMCP has been submitted.	Annual return on PMCP has been submitted.	Nil

6b	Area available for rehabilitation (ha) .	Nil	Nil	Nil
6c	afforestation done (ha).	6.35 ha.	6.35 ha.	Nil
6d	No. of saplings planted during the year	8180 nos. of saplings.	In 2018-19, total 55959 nos. of saplings were planted.	Nil
6e	Cumulative no .of plants	Not specified.	Cumulatively 501523 nos. of saplings were planted.	Nil
6f	Any other method of rehabilitation	None	Not applicable.	Nil
6g	Cost incurred on watch and care during the year	Rs 30.00 lakh.	Rs 33.00 lakh.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	4.62ha	3.17ha	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	4.62ha	3.17ha	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	0.405ha	0.405ha	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable.	Not applicable.	Nil

6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not applicable.	Not applicable.	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not applicable.	Not applicable.	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not applicable.	Not applicable.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not applicable.	Not applicable.	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Provisions for quarterly monitoring of air, water and noise level are being carried out.	Quarterly monitoring of air, water and noise level are being carried out.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Afforestation has been carried out along slope of waste dump & safety zone. Regular monitoring of air, water and noise levels are being done in the mine.	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting envisaged.	Gradewise sorting is being practiced.	Nil

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Provisions for mechanised and manual methods are practised for gradewise sorting of iron ore.	Mechanised and manual methods are practised for gradewise sorting of iron ore.	Nil
7c	Different grade of mineral sorted out at mines.	45% to 58% Fe and +58% Fe.	45% to 58% Fe and +58% Fe.	Nil
7d	Any beneficiation process at mines	None	Not applicable.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Cut off grade of iron ore for the mine is +58% Fe. Different grades of minerals sorted out at mines are -65% Fe, 62 to 58% fe and 58 to +45% Fe.	Nil

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No topsoil exists.	Not applicable.	Nil
8b	Concurrent use or storage of topsoil	Not applicable.	Not applicable.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Provisions for separate dumping of overburden/waste and mineral reject are envisaged..	Separate dumping of overburden/waste and mineral reject are done.	Nil

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Reclamation of mined out area proposed.	3.17ha of mined out area has been reclaimed.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	4.62ha	3.17ha	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Dump plantation & safety zone plantation proposed.	55959 nos. of saplings have been planted to cover dump and safety zone plantation during 2018-19.	Nil
8g	Survival rate	Not specified.	Reported survival rate is 68%	Nil
8h	Water sprinkling on roads to control airborne dust	Provisions for water sprinkling on the haul road is envisaged to control airborne dust.	Water sprinkling on the haul road are being practised to control airborne dust.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Cumulatively 55959 nos. saplings were planted by lessee to enhance the auysthetic beauty of the sorrounding areas.	Nil

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly returns are submitted on regular basis & Annual return for the year 2018-19 also submitted in time.	The submission status of monthly and annual returns are satisfactory.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer-3, Diploma mining Engineer-4, Geologist-1	Graduate Mining Engineer-3, Diploma mining Engineer-4, Geologist-1	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Pit-67.82 ha, waste dump-15.403 ha ha, reclaimed/rehabilitated-2.170ha, Infrastructure -36.860, other purposes - 1.094 ha.& progressive closure-1.000ha	Area covered under different heads are Pit-67.82 ha, waste dump-15.403 ha ha, reclaimed/rehabilitated-2.170ha, Infrastructure-36.860, other purposes - 1.094 ha.& progressive closure-1.000ha	Nil
9d	Scrutiny of Annual return on afforestation	55959 nos of saplings.	55959 nos of saplings.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	17954 tonnes - 58% to +45% Fe.	Found to be in order.	Nil

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Gradeswise stock i.e Below 55% , 55% to below 58% , 58% to below 60% , 60% to below 62% , 62% to below 65% & above 65% have been furnished.	Gradeswise stock i.e Below 55% , 55% to below 58% , 58% to below 60% , 60% to below 62% , 62% to below 65% & above 65% have been furnished.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production- Rs 2611.81.	Cost of production- Rs 2611.81.	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed asset Rs 73901569/-	Fixed asset Rs 73901569/-	Nil
9k	Scrutiny of Annual return on mining machineries	A fleet of mining machineries are furnished in the annual return submitted for 2018-19.	The deployment status of mining machineries are 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	
MCDR17	Rule 11(1)	17/09/2019	19/11/2019				

Date : 02-07-2020


(SHRI G.C. SETHI)

Indian Bureau of Mines