

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

**MCDR INSPECTION REPORT**

**Nagpur regional office**

**Mine file No :** MAH/NAG/MN-308/NGP

**Mine code :** 40MSH14030

- (i) Name of the Inspecting : **K02** ) **Kalmata.M.K.**  
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Shri Deependra Nath, Legal Heir of Late Ravindra Nath  
Official with  
Designation
- (iv) Date of Inspection : 05/03/2020
- (v) Prev.inspection date : 30/03/2018

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KIRNAPUR (2.88H)**
- (b) **Registration NO.** : **IBM/5535/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MAHARASHTRA  
District : NAGPUR  
Village : KIRNAPUR  
Taluka : SAONER  
Post office : KOTHURNA  
Pin Code : 441001  
FAX No. :  
E-mail :  
Phone : 9822462552
- (f) Police Station :
- (g) First opening date : 19/11/2005
- (h) Weekly day of rest : SUN
2. Address for : 58, THE MALL, CANTONMENT  
correspondance : KAMPTEE
3. (a) Lease Number : MSH0366
- (b) Lease area : 2.88
- (c) Period of lease : 20
- (d) Date of Expiry : 17/11/2025
4. Mineral worked : MANGANESE ORE Main

## 5. Name and Address of the

Lessee : RAVINDRA NATH  
 NAGPUR MAHARASHTRA  
 Phone:  
 FAX :

Owner : RAVINDRA NATH  
 NAGPUR MAHARASHTRA  
 Phone:  
 FAX :

## Mining Engineer

Name : RAVISHANKAR GHANGARE, Full Time  
 Qualification : DIP. IN MINING & MINE SURVEYING  
 Appointment/ : 20/11/2005  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	27/01/2005
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	30/08/2011
		Mining Scheme rule 12 MCDR1988	14/07/2016
		MP modif under 17(3) MCR 2016	12/07/2018

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Four exploratory boreholes were proposed in the present plan period.	Lessee has not carried out any exploration in the present plan period.	Violation is pointed out for the same under Rule 11(1) of MCDR-2017.
1b	Exploration over lease area for geological axis 1 or 2	Exploration was proposed for G-1 level.	Lessee has not carried out the exploration in the present plan period. However, total area explored under G-1 level is 1.89 Ha.	Violation is pointed out under Rule 11(1) of MCDR-2017, for not carried out exploration as per the proposal in the present plan period.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	By lessee.	No exploration has been carried out in the present plan period.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	0.98 Ha	Exploration has been not carried out in the present plan period.	
1e	Balance reserve as on 01/04/20	Reserves as on 1.04.2018 (as per the approved document) Proved Mineral Reserves (111)- 111881 tonnes Feasibility M Resources (211)-36307 tonnes Total - 148188 tonnes	Reserves as on 1.04.2019 Proved Mineral Reserves (111)- 107946 tonnes Feasibility M Resources (211)-36307 tonnes Total - 144253 tonnes	Lessee has produced 3935 tonnes of ROM in the year 2018-19 and same is depleted from the proved minreal reserves given in the approved document.

1f	General remarks of inspecting officers on geology, exploration etc	The Kirnapur deposit occurs, nearer the contact of Sitasaongi and Munsar formattion. The manganese ore formation is associated with quartzite and mica schist. In the present plan period lessee has propoosed 4 boreholes to explore entire area under G-1 level and also to know the depth continuity of the ore body, the exploration is not carried out as per the proposal and violation is pointed out for the same.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In the year 2018-19, development was proposed in the existing pit only. The proposed Co-ordinates are N-2369300 to N-2369490 & E-294900 to E-295015.	Working has been carried out, between the co-ordinates N-2369326 to N-2369460 and E-294908 to E-294990.	The working has been carried out within the proposed co-ordinates only.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, separate benches are made in Ore and OB. The working was proposed in the existing pit only, so topsoil bench was not proposed.	Separate benches are made in Ore and OB.	Total 6 benches are made in the lease area, three are in OB and three are in ore.
2c	Stripping ratio or ore to OB ratio	1:2.25 for the plan period.	1:1.5	Variation in stripping ration is due to lagging in production and development compared to proposal.

2d	Quantity of topsoil generation in m3	Not proposed	Nil	Working has been carried out in the broken up area only.
2e	Quantity of overburden generation in m3	4240 CUM	3000 CUM	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		In the year 2018-19, the working has been carried out within the proposed co-ordinates only. The benches were not maintained properly in the western side of the lease area. Lessee has advised to rectify the same.	

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	6540 tonnes.	4742 tonnes.	Lessee has produced 3822 tonnes from insitu working and balance 920 tonnes from dump working.
3c	Recovery of sailable/usable mineral from ROM production	100	100	
3d	Quantity of mineral reject generation	Nil	Nil	Lessee has shown waste as mineral reject in the approved document and advised to correct the same in the Review of mining plan which is due from 01.04.2020.
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable	Not applicable	Lessee has shown waste as mineral reject in the approved document.
3f	Quantity of sub grade mineral generation.	Not proposed.	Nil	

3g	Grade of sub grade mineral generation	Not applicable.	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	
3j	Provision of drilling and blasting in mineral benches	Drilling is proposed using 32 mm dia Jackhammer drills. Blasting through Ammonium nitrate in small dia cartridged form.	Drilling and blasting has been carried out as per the proposal.	Lessee is doing drilling and blasting through Govt. registered contractor.
3k	Provision of mining machineries in mineral benches	Proposed combination of Hydraulic excavator and tipper.	Excavator and tippers are used for development and production.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6.0 mtr bench height was proposed.	Bench height is mainted at 3.00 to 4.00 mtr.	
3m	Total area covered under excavation/pits	1.83Ha, in the present plan period.	Total area covered under excavation is 1.7Ha.	
3n	Ore to OB ratio for the pit/mine during the year.	1:2.25	1:1.5	

3o	Total area put in use under different heads at the end of year	Area proposed for different activities in the present plan period up to 2019-20, is as follows. For mining- 1.83 Ha, For waste disposal- 0.48Ha, Infrasture- 0.066Ha.	Area under Mining- 1.70 Ha, Waste dump-0.350, Infrastructure-0.066
3p	Production of ROM mineral during the last five year period as applicable	2018-19 6540 tonnes 2017-18 5295 tonnes 2016-17 5295 tonnes 2015-16 5295 tonnes	2018-19 4742 tonnes. 2017-18 883 tonnes 2016-17 1011 tonnes 2015-16 1799 tonnes 2014-15 831 tonnes.
3q	General remarks of inspecting officers on method of mining etc.	Lessee has adopted category A-opencast mining. Combination of excavator and tippers is using for development work. The benches were not maintained properly in the western part of the lease area due to restriction of the lease boundary and lessee has advised to rectify the same.	

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Solid Waste Management - Dumping:

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Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Only OB dump is proposed in the present plan period. No topsoil and mineral reject is proposed in the present plan period.	Overburden generated during the year 2018-19 is dumped in the existing old dump as per the proposal. Total 6000 tonnes of OB was removed in the year 2018-19, out of 6000 tonnes, about 1500 tonnes dumped in the proposed waste dump and remaining 4500 tonnes was given to M/s H.G. Infrastructre Ltd for road construction work.	Lessee has permitted by the Directorate of Mining and Geology, Maharashtra to give waste to M/s H,G. Infrastructure ltd, for road work. The company is paying royalty to the State Government for lifting OB from the mine.
4b	Location of topsoil, OB and mineral reject dumps	Waste dump was proposed between the co-ordinates N-2369490 to N-2369525 and E-294900 to 294970.	OB dumping was made between the co-ordinates, N-2369510 to N-2369520 and E-294920 to E-294965.	Waste dumping was made within the proposed area.
4c	Number of dumps within lease area and outside of lease area	Two old dumps are existing within the lease area, waste dump in the Northern side of the lease area and Ore stock in the North-Eastern part of the lease area. In the present plan period waste dumping was proposed in the old dump existing in the northern side of the lease area.	Two dumps are exist within the lease area. Dumping was made as per the proposal.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL	
4e	Number of active and alive dumps.	Two	Two	
4f	Number of dead dumps.	Not proposed.	Nil	



4g	Number of dumps established.	Two	Two	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed Maintenance of Existing retaining wall and garland drain.	Retaining wall and garland drains were not maintained as per the proposal. No retaining wall and garland drains were observed in the field.	Violation is pointed out for the same under Rule 11(1) of MCDR-2017.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed.	Nil	Only maintenance of existing retaining wall and garland drain was proposed. No retaining wall and garland drains were observed in the field and violation is pointed out for the same under Rule 11(1) of MCDR-2017.
4j	Number of settling ponds	Not proposed.	Nil	
4k	Specific comments of inspecting officer on waste dump management		Total 6000 tonnes of OB was removed in the year 2018-19, out of 6000 tonnes about 1500 tonnes dumped in the proposed waste dump and remaining 4500 tonnes was given to M/s H.G. Infrastructre Ltd for road construction work. Lessee has not maintained/made retaining wall and garland drains along the toe of the dump. Violation is pointed out for the same under Rule 11(1) of MCDR-2017.	

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Solid Waste Management - Backfilling:

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Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not proposed.	Nil.	No backfilling is proposed in the present plan period.
5b	Area under backfilling of mined out area	Not proposed.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	Nil	
5d	Total area fully reclaimed and rehabilitated	Not proposed.	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Present working is not reached upto the proved depth and no proposals were made for reclamation and rehabilitation in the present plan period.	

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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).	Before 1st july of every year.	Lessee has not submitted a yearly report on protective and rehabilitative works carried out as envisaged in the approved mine closure plan, for the year 2018-19.	Violation is pointed out for the same under Rule 26(2) of MCDR-2017.
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	0.25Ha, in the year 2018-19.	Nil	Violation is pointed out for the same under Rule 11(1) of MCDR-2017.

6d	No. of saplings planted during the year	250	Nil	Violation is pointed out for the same under Rule 11(1) of MCDR-2017.
6e	Cumulative no .of plants	550 saplings in the present plan period upto 31.03.2020.	No plantation was made in the present plan period,	Violation is pointed out for the same under Rule 11(1) of MCDR-2017.
6f	Any other method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch and care during the year	Nil	Nil	
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)	Yes, Air, Water and Noise monitoring was proposed in Core and Buffer zone.	Environmental monitoring in the core and buffer zone is not carried out as per the proposal.	Violation is pointed out for the same under Rule 43 of MCDR-2017.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		The progressive Mine Closure plan is not implimented as per the proposals. Plantation was not made as pe the proposal. Lessee has not carried out environmental monitoring in core and buffer zones and also not submitted yearly report on implimentation of PMCP for the year 2018-19. Violation is pointed out Under rule 11(1), 26(2) & 43 of MCDR-2017.	

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual gradewise sorting within the lease area.	As per the proposal.	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Grade wise sorting into three grades.	Three grades are sorting within the lease area. Below 25% Mn ore, 25 to Below 35%Mn ore and 35 to below 46% Mn ore.	The quantity of 35 to below 46% ore is very less compare to other available grades.
7d	Any beneficiation process at mines .	Nil	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Lessee is blending low grade ore for which direct market is not available with the high grade material as per the requirement of the buyers.	

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	Nil	
8b	Concurrent use or storage of topsoil	Not proposed.	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes, separated dumping of waste proposed.	Separate OB and ore stock is maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed.	Nil	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation was proposed on the waste dump.	Plantation was not made as per the proposal.	Violation is pointed out for the same under Rule 11(1) of MCDR-2017.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Baseline information was furnished in the mining plan. Additional plantation proposals are being given in the Mining Plan documents.	Most of the lease area is broken up and lessee has made very less plantation within the lease area. In the present plan period no plantation was made within the lease area and violation is pointed out for the same.	
8g	Survival rate	Nil	Nil	
8h	Water sprinkling on roads to control airborne dust	Yes, proposed	Yes, being carried out through small hired tankers.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Most of the lease area was degraded by the mining activities. The benches were not maintained properly in the western side of the lease area and lessee has advised to rectify the same in the next plan period. No plantation was made in the present plan period to develop green belt and violation is pointed out for the same under Rule 11(1) of MCDR-2017.	

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	A monthly return shall be submitted before the tenth day of every month in respect of the preceding month and an annual return shall be submitted before the 1st day of July each year for the preceding financial year.	Lessee has submitted monthly returns up to Feb-2020. Annual returns, submitted signed draft copy (Hard copy) to Regional office, Nagpur for the year 2018-19 and not submitted final copy in online portal.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer and Manager-Shri Mirza Bang, Geologist- Nil	Lessee has not appointed the Mining Engineer and Geologist. Shri Mirza Bang who is shown as mining engineer is not having the required qualification.	Violation is pointed out for the same under Rule 55 (1)( C)(i) of MCDR-2017.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under working- 2.88Ha, Waste dump-0.35 Ha, Infrastructure -0.006Ha	Area under Mining- 1.70 Ha, Waste dump-0.350, Infrastructure-0.066	In the annual returns submitted for the year 2018-19, (Hard copy) total area utilised under different heads , is given more than the total lease area. Violation is pointed out for the same under Rule 45(7) of MCDR-2017.
9d	Scrutiny of Annual return on afforestation	Nil	Nil	No plantation was done in the year 2018-19.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	60 tonnes.	Lessee has not removed any mineral reject in the year 2018-19.	Violation is pointed out for the same under Rule 45(7) of MCDR-2017.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM-opening stock- 686.634T, Production- 3822 T, Closing 240T, Gradede Below 25% Mn ore, OS-597.914T Production- 4529.54T, dispatch- 4772.15T and CS- 355.304 T, 35 to below 46% Mn ore, OS-30.54 T, Production & Dispatch-NIL, CS-30.54T.	Stock positions of ROM and Graded ore, given in the annual returns submitted for the year 2015-16 to 2018-19 are mismatching.	Violation is pointed out for the same under Rule 45(7) of MCDR-2017.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Average, sale value of below 25% Mn ore is given as, Rs- 3800/Tonnee, Lowest sale value- Rs- 395/T and Highest sale value-Rs- 9642.67/T, Exmine price is shown as Rs-3277/T and cost of Production- 2796/T.	The sale value given in the returns appears incorrect, which is to be substantiated by the sale invoice for its verification.	Violation is pointed out for the same under Rule 45(7) of MCDR-2017.
9h	Scrutiny of Annual return on fixed assets	Value of Fixed assets is shown as zero.	Shown One back hoe excavator and 02, dumpers in the annual returns, but under capital structure value of Machinery including transport is shown as zero.	Violation is pointed out for the same under Rule 45(7) of MCDR 2017.
9k	Scrutiny of Annual return on mining machineries	Back Hoe excavator-01, Dumpers-2.	The information given in the annual returns found correct.	

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**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)	05/06/2020			
MCDR17	Rule 11(4)	05/06/2020			
MCDR17	Rule 26(2)	05/06/2020			
MCDR17	Rule 35(2)	05/06/2020			
MCDR17	Rule 43	05/06/2020			
MCDR17	Rule 45(5)(c)	05/06/2020			
MCDR17	Rule 45(7)(a)	05/06/2020			
MCDR17	Rule 55(1)(3)	05/06/2020			

**Date :**

**(Kalmata.M.K.)**

Indian Bureau of Mines