

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

**MCDR INSPECTION REPORT**

**Nagpur regional office**

**Mine file No :** MAH/NAG/MN--79/NGP

**Mine code :** 40MSH14006

- (i) Name of the Inspecting : **M017** ) **ASHISH MISHRA**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri V.M.Khedikar, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 03/03/2020
- (v) Prev.inspection date : 22/11/2019

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **GUMGAON**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Underground
- (e) Postal address :  
State : MAHARASHTRA  
District : NAGPUR  
Village : GUMGAON  
Taluka : SAONER  
Post office : KHAPA  
Pin Code : 441101  
FAX No. :  
E-mail :  
Phone : 07113--86123
- (f) Police Station :
- (g) First opening date : 01/07/1962
- (h) Weekly day of rest : SUN
2. Address for :  
correspondance :
3. (a) Lease Number : MSH0319
- (b) Lease area : 35.97
- (c) Period of lease : 50
- (d) Date of Expiry : 29/06/2050

MSH0086

48.6

60

30/06/2022

MSH0098  
1.33  
53  
31/03/2020

4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : M/S MANGANESE ORE (INDIA) LTD.  
3, MOUNT ROAD EXTENSION  
POST BOX NO. 34, NAGPUR  
(MP) NAGPUR MAHARASHTRA  
Phone:  
FAX :

Owner : DEEPANKAR SHOME  
1-A, MOIL BHAVAN KATOL ROAD  
NAGPUR NAGPUR MAHARASHTRA  
Phone:  
FAX :

Agent : Shri R.U.Singh  
Mansar Manganese Mines,  
Village- Mansar, Tehsil -  
Ramtek, Nagpur Dis Mansar  
NAGPUR MAHARASHTRA  
Phone:  
FAX :

Mining Engineer

Name : Shri Kishore Chandrakar, Full Time  
Qualification : B.E. Mining  
Appointment/ :  
Termination date

Geologist

Name : Shri I.A.Siddiqui, Full Time  
Qualification : M.Sc. (Geology)  
Appointment/ :  
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	01/04/2003
		Modif.of approved Mining Plan	03/06/2005
		Mining Scheme rule 12 MCDR1988	22/07/2008
		Mining Scheme rule 12 MCDR1988	09/07/2013
		MP review under 17(1) MCR 2016	07/06/2017
		MP review under 17(1) MCR 2016	20/06/2017

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	As per the approved Review of mining Plan for the period 2017-18 to 2021-22, there is no backlog regarding exploration. Future exploration proposed during the plan period is as below:- 2018-19- 2 Nos. 2020-21- 2 Nos. & 2021-22- 2 Nos. Total 6 boreholes proposed during the plan period out of which 2 boreholes were proposed upto 2018-19 at 50 m spacing having 400 m drilling meterage.	2 boreholes were drilled in the year 2018-19 in the lease area as per the details below: BH 99: Depth- 320 m, Angle- 85 degree BH 100: Depth- 234 m, Angle-90 degree	Form I was submitted for the said exploration by the lessee.
1b	Exploration over lease area for geological axis 1 or 2	G-1 & G-2	Entire potentially mineralized area has been covered under G-1. G-2 resources are considered for deeper levels (-400'L to -500'L) beyond present economically workable limit of -400'L	

1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration shall be carried out by MOIL itself with an approximate expenditure of Rs 6500/- per m drilling.	Exploration was carried out by MOIL Ltd. with an approximate expenditure of Rs 40 Lakh	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Further exploration through 6 boreholes is proposed in the lease area at close spacing of 50 m to delineate the ore body more precisely. Almost entire potentially mineralized area is covered under G-1.
1e	Balance reserve as on 01/04/20	Balance reserves/resources as on 01.04.2017 (as per the approved review of Mining Plan) is given in actual work details:	111- 715540 T 121- 170500 T 332- 51818 T	For the entire mine having 3 leases, balance reserves/resources as on 01.04.2019 are: 111-2998591 T 221- 5254656 T 332- 218750 T

1f	General remarks of inspecting officers on geology, exploration etc	Ore zone in the lease area is displayed in anticlinal form with a strike east west and dip due south with moderate to high angle. The limb of ore also plunges due west with low angle. The deposit is faulted with a vertical fault trending in north east - south west direction, dislocating the eastern block to south. This deposit has been explored to the depth of -900'L with 75 boreholes. The avg. thickness available for mining within the area ranges from 3 m to 50 m.	The area is one of the three leases of Gumgaon mine having total area 85.90 ha (L-1: 48.596 ha, L-2: 35.97 ha & L-3: 1.33 ha). As 1.33 ha area lease is PWD road, entire exploration is proposed in other 2 leases. Total 75 boreholes were drilled in the composite area to prove the mineral reserves/resources available in the potentially mineralized zone and further exploration is proposed in this lease with 6 boreholes from 2017-18 to 2021-22 period out of which, 2 boreholes have been completed.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development is proposed in - 200'L, -300'L & -400'L at Ch 26 to Ch 29 & Ch 30 to Ch 37	Development is as per the locations proposed in the approved mining plan document.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
2c	Stripping ratio or ore to OB ratio	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
2d	Quantity of topsoil generation in m3	Not applicable as it is an underground mine	Not applicable as it is an underground mine	

2e	Quantity of overburden generation in m <sup>3</sup>	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Ore zone in the lease area is displayed in anticlinal form with a strike east west and dip due south with moderate to high angle. Thus, underground mining with overhand cut and fill method is adopted which is suitable as per the occurrence of mineral in the area. Present economic workable pit limit is - 400'L, however, the deposit has been explored upto - 900'L. Developments are adequate in the area for systematic and scientific exploitation of orezone demarcated through extensive exploration.

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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Not applicable as it is an underground mine	Not applicable as it is an underground mine	

3b	Quantity of ROM mineral production proposed	2018-19: 48000 T from 48.596 ha, 60000 T from 35.97 ha & 7420 T from 1.33 ha area. Overall proposed production from the combined 3 lease areas was 115420 T (Underground ROM)	2018-19: Actual ROM (underground) from all 3 leases was 89956 T	
3c	Recovery of saleable/usable mineral from ROM production	Recovery of cleaned ore proposed is around 80% of ROM (ROM: 48000 T, cleaned ore: 38400 T) in this lease. Overall recovery from the entire mine is proposed as ~78%	Actual recovery of cleaned ore was 100%	Recovery was 100% due to saleability of LGHS (Low-grade High Silica) material and fines. Thus, after grade-wise sorting of ROM, entire material was saleable and no mineral rejects or sub-grade were reported for the year. The same was examined through sample sale invoices for LGHS and fines dispatch.
3d	Quantity of mineral reject generation	2018-19: 4800 T from this lease, overall 13445 T from entire mine having 3 leases	2018-19: Nil	Reasons elaborated under 3c.
3e	Grade of mineral rejects generation and threshold value declared.	Grade of mineral rejects reported are - 10% of Mn, threshold value for Mn is +10% Mn	As per the proposals	
3f	Quantity of sub grade mineral generation.	2018-19: 4800 T from the lease, overall 11975 T from the mine having 3 leases	2018-19: Nil	Reasons elaborated under 3c



3g	Grade of sub grade mineral generation	+10-20% Mn containing material	As per the proposals, however, entire quantity was saleable & thus, no sub-grade has been reported.	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting of ROM after mechanical crushing and screening at pit head.	Manual sorting of ROM after mechanical crushing and screening at pit head.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	Nil	
3j	Provision of drilling and blasting in mineral benches	Not applicable as it is an underground mine	Not applicable as it is an underground mine	Drilling and blasting in underground is proposed. Drilling is being carried out with 33 mm dia jackhammer drill machines. Blasting is proposed and carried out with 25 mm small dia explosives (Nitro based) with electric detonation.
3k	Provision of mining machineries in mineral benches	Not applicable as it is an underground mine	Not applicable as it is an underground mine	In underground, Locomotive, SDL, drills are being used in form of mechanization.

31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Not applicable as it is an underground mine	Not applicable as it is an underground mine	Level interval is being kept at 100' (around 30 m) that is suitable as per the method of mining. Further, size of panels, openings and pillars, support system, ventilation etc. are designed after carrying out rock mechanics and other studies in this regard to keep the openings stable through out the working or life of the mine (as applicable). These studies have been done by CMRI & NIRM and further, for 2nd shaft, TEFRR has been carried out by CMPDI.
3m	Total area covered under excavation/pits	Total area covered under old working pit: 7.766 ha Additional requirements: nil (underground mining method) Net area under excavation/pits: 7.766 ha	As per the proposals, area under old excavation/pits is 7.766 ha. As working is being carried out only by underground methods, no additional area has been broken for excavation or pitting.	
3n	Ore to OB ratio for the pit/mine during the year.	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
3o	Total area put in use under different heads at the end of year	Total area put to use under different heads as on 31.03.2019 is given in actual work details:	Area under: Excavation/Pits- 7.766 ha (old pits) Area under Dumps- 13.864 ha Roads- 1.75 ha Mineral Storage- 1.28 ha Infrastructure- 4.8 ha Township- 5 ha	

3p Production of ROM mineral during the last five year period as applicable

2017-18: 48000 T (U/G), 6000 T (Dump Working)	2017-18: 54619 T (U/G), 6328 T (Dump Working)
2016-17: 90400 T (U/G), 16000 T (Dump Working)	2016-17: 64053 T (U/G), 14942 T (Dump Working)
2015-16: 83200 T (U/G), 16000 T (Dump Working)	2015-16: 62681 T (U/G), 2774 T (Dump Working)
2014-15: 91200 T (U/G), 16000 T (Dump Working)	2014-15: 52177 T (U/G), 10491 T (Dump Working)
2013-14: 77600 T (U/G), 16000 T (Dump Working)	2013-14: 49160 T (U/G), 16196 T (Dump Working)

3q General remarks of inspecting officers on method of mining etc.

Method of mining is underground and method of stoping is cut and fill. The method selected is suitable as per the occurrence of orebody in the area, geology of the area and capital investments. Present mode of entry is through vertical shaft upto 169 m from the surface connecting -100'L, -200'L, -300'L & -400'L. As depth is increasing, one high speed shaft is proposed at Ch 52 with maximum operating depth of 450 m as per the future strategy for systematic developments at deeper levels.

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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) No top soil or OB is present in the working area being an underground mine. Mineral rejects generated from the underground are proposed to be kept separately for future considerations No top soil or OB is present in the working area being an underground mine. No mineral rejects are generated from the underground for the year 2018-19, however, it is proposed to be kept separately for future considerations. In the lease area, one mineralized dump BD 01 at ch 6 to Ch 12 is there for recovery of minerlized content.
- 4b Location of topsoil, OB and mineral reject dumps Top soil dump: Nil  
OB/Waste Dump: 5 Old Reclaimed Dumps in Southern part of the lease area at N1700 to N1900 & E21000 to E2700, and Eastern part of the lease at N1900 to N2200 & E2600 to E2800. One active dump at N2000 to N2200 & E2400 to E2600. Mineral rejects/Mineralized Dumps: One dump at N1850 to N1950 & E2450 to E2600 As per the proposals
- 4c Number of dumps within lease area and outside of lease area Top soil: Nil  
Waste dumps: 5 old reclaimed and one active dump  
Mineral rejects: One dump  
All dumps are within the lease area All dumps are within the lease area

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as it is an underground mine	Not applicable as it is an underground mine
4e	Number of active and alive dumps.	One waste dump is active	One waste dump as per the location given under item 4b
4f	Number of dead dumps.	Five old dumps have already been reclaimed and rehabilitated.	As per the proposals
4g	Number of dumps established.	Five dumps have been stabilized through plantation	As per the proposals
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes, garland drains and retaining walls are already constructed along the toe of the dumps, only maintenance and repair of the same is proposed and being carried out.
4i	Length of Retaining wall or garland drain all along dumps	Approximately 2000 m alongwith boundary wall	As per the proposals, the protective measures have been constructed in past years. Only repair carried out in 2018-19 mainly in pre and post monsoon period.
4j	Number of settling ponds	No such proposals	Nil

4k	Specific comments of inspecting officer on waste dump management	One waste dump is active and five old dumps have already been stabilized & reclaimed through dense plantation. Overall around 11.23 ha of dump area has been covered under plantation. Garland drains and retaining walls are available at the toe of the dumps in form of protective measures. Being an underground mine, waste available for dumping is meagre and most of the generated waste is filled underground. Thus, waste dump management aspect is satisfactory at mine level.
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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.	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
5b	Area under backfilling of mined out area	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
5d	Total area fully reclaimed and rehabilitated	Not applicable as it is an underground mine	Not applicable as it is an underground mine	

5e	General remarks of inspecting officers on backfilling and reclamation etc.	At conceptual stage, existing old pit is proposed to be converted into water reservoir and no backfilling is proposed. Generated waste is used for filling of underground voids, thus, available waste is quite less for backfilling of the old pit.
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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).	To be submitted on or before 30th June every year depicting work done under PMCP in the preceeding year	Yes	
6b	Area available for rehabilitation (ha) .	No such proposals	As the area is under active mining, there is no clear proposals for availability of area for rehabilitation. Further, there is extensive ongoing exploration program to delineate the orezone at deeper levels for the composite mine having 3 leases. Entire western & NW part of the lease area that is waste land (footwall) is covered under various infrastructure, township etc.. Southern & eastern parts that were having old waste dumps, have already been rehabilitated.	Gap plantations over waste dumps and some green belt plantation along the road passing in the western part of the lease area has been carried out.

6c	afforestation done (ha).	As plantation has already been carried out over the available area, no proposals for covering additional area under plantation. Only gap/infilling plantation is proposed as per the requirements.	As per the proposals, gap plantations have been carried out.
6d	No. of saplings planted during the year	2018-19: In filling plantation as per the requirements, no such proposals for number of saplings to be planted.	2018-19: 4750 saplings on the dumps at southern and eastern part of the lease area.
6e	Cumulative no .of plants	Proposals for cumulative number of plants is not available as the mine is quite old and at earlier stages, there were no specific proposals	Cumulative number of plantes in Gumgaon Mine comprising of 3 leases is around 137680 out of which 97654 plants are surviving at 71%.
6f	Any other method of rehabilitation	No such proposals except meagre plantation along the road passing through western part of the lease area.	As per the proposals



6g	Cost incurred on watch and care during the year	Cost proposed to be incurred is only over environment monitoring i.e. around Rs 100000/- (Rs 25000/- expenditure for quarterly analysis of environment parameters)	Actual cost incurred is around Rs 12 Lakh for the entire mine having 3 lease areas (including SDF expenditures)
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not applicable as it is an underground mine	Not applicable as it is an underground mine
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not applicable as it is an underground mine	Not applicable as it is an underground mine
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not applicable as it is an underground mine	Not applicable as it is an underground mine
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable as it is an underground mine	Not applicable as it is an underground mine
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not applicable as it is an underground mine	Not applicable as it is an underground mine

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No such proposals	As the area is under active mining, there is no clear proposals for availability of area for rehabilitation. Further, there is extensive ongoing exploration program to delineate the orezone at deeper levels for the composite mine having 3 leases. Entire western & NW part of the lease area that is waste land (footwall) is covered under various infrastructure, township etc.. Southern & eastern parts that were having old waste dumps, have already been rehabilitated.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such proposals	No such proposals
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No such proposals	No such proposals
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring is proposed to be carried out as per the guidelines of MOEFCC in this regard.	Environment monitoring was done for air, water, noise and ground vibrations in the core and buffer zone. Reports were seen during site inspection and all the parameters were within the permissible limits. Surface subsidence is also being monitored regularly.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Under PMCP operations, overall around 4750 saplings have been planted in form of gap plantation over the dumps located in southern part and eastern part of the lease area. Entire western & NW part of the lease area that is waste land (footwall) is covered under various infrastructure, township etc.. Southern & eastern parts that were having old waste dumps, have already been rehabilitated. Environment monitoring has been carried out in the area as per the norms.
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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Dispatch of graded mineral after mechanical crushing, screening and manual sorting of ROM	Dispatch of graded mineral after mechanical crushing, screening and manual sorting of ROM	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical crushing, screening at pit head and then manual sorting	Mechanical crushing, screening at pit head and then manual sorting	

7c	Different grade of mineral sorted out at mines.	(a) 25% to below 35% Mn (b) 35% to below 46% Mn (c) 46% Mn and above (d) Sub-grade: +10-20% Mn (e) Mineral rejects: -10% Mn	(a) 25% to below 35% Mn (b) 35% to below 46% and above grade not generated during the year 2018-19. No sub-grade or mineral rejects were generated due to 100% saleability of ROM as elaborated under item 3c	
7d	Any beneficiation process at mines	No such proposals	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation aspect has been covered satisfactorily for the mine. ROM is proposed to be graded into saleable ore, mineral rejects & sub-grade. Subgrade is proposed to be utilized in future as per the requirements. In the year 2018-19, entire fines and low grade minerals were also saleable. No subgrade is left underground and all such material is proposed to be brought to surface.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not applicable as it is an underground mine	Not applicable as it is an underground mine	
8b	Concurrent use or storage of topsoil	Not applicable as it is an underground mine	Not applicable as it is an underground mine	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No top soil or OB is present in the working area being an underground mine. Mineral rejects generated from the underground are proposed to be kept separately for future considerations	No top soil or OB is present in the working area being an underground mine. No mineral rejects are generated from the underground for the year 2018-19, however, it is proposed to be kept separately for future considerations. In the lease area, one mineralized dump BD 01 at ch 6 to Ch 12 is there for recovery of minerlized content.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposals	Nil	In the underground, voids are being backfilled with generated waste and minimum quantity of waste is being transported to surface.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposals	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Baseline information given in the mining plan. No additional plantation is proposed till the maturity of dumps.	Baseline information has been given in the mining plan for the area. Further, additional plantation has been carried out over 11.23 ha in the southern and eastern part of the lease area over dumps.	
8g	Survival rate	~75% (overall mine)	~71% (overall mine)	As survival rate is low, it was overcome by planting more number of saplings.

8h	Water sprinkling on roads to control airborne dust	Yes, for surface operations in form of transportation of ore and manpower, sorting yard etc., water sprinkling is proposed. Not applicable for underground workings.	Over surface working areas, water sprinkling was done through 6000 L capacity water tanker deployed in the mine.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Mainly, working is through underground means in the area, hence, apart from normal degradation due to mining, aesthetic beauty is satisfactory in the area. Lessee has done extensive plantation over the dumps in the southern and eastern part of the lease area and in the nearby villages/purchased land in collaboration with NEERI which is quite good.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual Returns are required to be submitted online before 1st July of every year for preceding year Monthly returns are required to be submitted online before 10th of every month for preceding month	AR submitted online upto 2018-19 For entire mine having 3 leases MR submitted online upto Jan'20 for entire mine having 3 leases	It was advised to file separate returns for separate leases for evaluation of individual proposals.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri V. M. Khedikar Geologist: Shri Anil Singh Rajput Manager: Shri V. M. Khedikar	Complete and correct information provided
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	As per the AR for the year 2018-19 (combined 3 leases): Area used for waste disposal: 18.46 ha Area occupied by plant, buildings, residential, welfare buildings & roads: 11.847 ha Other Purpose (MINERAL STORAGE): 1.28 ha Reclaimed and rehabilitated: 11.23 ha	Complete and correct information provided. As pit area has not been covered under current O/C workings, the same has been furnished as Nil. However, for the lease area of 48.596 ha, land use as on 01.04.2019 is as below: Area under: Excavation/Pits- 7.766 ha (old pits) Area under Dumps- 13.864 ha Roads- 1.75 ha Mineral Storage- 1.28 ha Infrastructure- 4.8 ha Township- 5 ha
9d	Scrutiny of Annual return on afforestation	Within lease: No. of saplings- 4750, Survival- 70% Outside Lease: No. of saplings- 5000, Survival- 73%	Correct information for within lease plantations. Outside lease plantation work could not be verified. In the lease area of 48.596 ha, gap plantation over waste dumps has been carried out through 4750 saplings.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral rejects: Nil	Complete and correct information provided as per the reasons elaborated under item 3c

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: Opening Stock and Closing Stocks- Nil, Production- 83662 T Graded Ore: (a) 25% to below 35% Mn- Opening Stock- 1582 T, Production- 20170 T, Dispatch- 20406 T, Closing Stock- 1346 T (b) 35% to below 46% Mn- Opening Stock- 6691 T, Production- 69786 T, Dispatch- 75364 T, Closing Stock- 1113 T (c) 46% Mn and above- Opening Stock- 3 T, Production- Nil, Dispatch- Nil, Closing Stock- 3 T	Complete and correct information provided for the entire mine
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value: (a) 25% to below 35% Mn- Rs 185735713/- (b) 35% to below 46% Mn- Rs 1050517878/- (c) 46% Mn and above: Nil Ex-mine Price: (a) 25% to below 35% Mn- Rs 9102/- per T (b) 35% to below 46% Mn- Rs 13939/- per T (c) 46% Mn and above: ASP (no sale occurred) Cost of production: Rs 5440.67 per T	Complete and correct information provided for the entire mine



9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in Rs): 675472296/- Apart from this, depreciation for plant, buildings, machineries etc. has been furnished under Part-II A.	Complete and correct information provided for the entire mine
9k	Scrutiny of Annual return on mining machineries	Complete information given for mining machineries deployed at the mine.	Complete and correct information furnished as per the extent of mechanization given in the mining plan document

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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

**Date :****(ASHISH MISHRA)**

Indian Bureau of Mines