

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

**MCDR inspection REPORT**

**Nagpur regional office**

**Mine file No :** MP/BGT/MN-6/NGP

**Mine code :** 40MPR01002

- (i) Name of the Inspecting : **SQ32** ) **SANDEEP KUMAR SINGH**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri V.R. Parida (Agent & DGM Mines), Shri U.S. Bhati  
Official with  
Designation
- (iv) Date of Inspection : 02-AUG-19
- (v) Prev.inspection date : 25-SEP-13

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BALAGHAT**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Underground
- (e) Postal address :  
State : MADHYA PRADESH  
District : BALAGHAT  
Village : BHARWELI  
Taluka : BALAGHAT  
Post office : BHARWELI  
Pin Code :  
FAX No. :  
E-mail : [www.moil.nic.in/mm.bg@mail](http://www.moil.nic.in/mm.bg@mail)  
Phone : 07122890050 0712245185
- (f) Police Station :
- (g) First opening date : 30-JUN-03
- (h) Weekly day of rest : SAT
2. Address for :  
correspondance :
3. (a) Lease Number : MPR0579
- (b) Lease area : .79
- (c) Period of lease : 20
- (d) Date of Expiry : 30-JUN-22

MPR0574  
182.3  
20  
30-JUN-22

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 : SH.G.P.KUNDARGI  
M/S MANGANESE ORE INDIA  
LTD. MOIL BHAVAN, 1A, KATOL  
ROAD, NAGPUR-440013 NAGPUR  
MAHARASHTRA  
Phone: 0712-2532252  
FAX : 0712-252499

Agent : M P PATEL  
BALAGHAT MINE PO BALAGHAT  
BALAGHAT MADHYA PRADESH  
Phone: 245187  
FAX : 245184

Mining Engineer

Name : Shri B.S.KARPE,Part Time  
Qualification : B.E.(MINING)  
Appointment/ : 01-OCT-07  
Termination date

Geologist

Name : S. K. SARKAR,Full Time  
Qualification : M TECH(APPLIED GEOLOGY)  
Appointment/ : 06-SEP-06  
Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	15-OCT-03
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	28-JAN-06
	:	Renewal under rule 24 MCR1960	28-AUG-06
	:	Mining Scheme rule 12 MCDR1988	18-JAN-08
	:	Mining Scheme rule 12 MCDR1988	22-MAY-08
	:	Modif.approved Mining Scheme	03-MAR-11

Mining Scheme rule 12 MCDR1988

03-OCT-13

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Total 5 Nos. With 3356 Mtrs. (Bore Hole proposed in SOM from year 2017-18 to 2021-22)	7 Nos. Bore hole Completed with 3370 Mtrs. (during SOM Period, From 2017-18 to 2018-19)	
1b	Exploration over lease area for geological axis 1 or 2	Total 5 Nos. With 3356 Mtrs. (Bore Hole proposed in SOM from year 2017-18 to 2021-22)	7 Nos. Bore hole Completed with 3370 Mtrs. (during SOM Period, From 2017-18 to 2018-19)	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	MOIL LIMITED	MOIL LIMITED	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	NA	
1e	Balance reserve as on 01/04/20		111=10.90 Mllion T. 211=2.5 Mllion T. & 332=10.5Mllion T.	AS ON 01/04/2019
1f	General remarks of inspecting officers on geology, exploration etc	...	...	The proposed drilling has been done.

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Mine is worked by Underground Cut and fill method. Proposed & actual development is enclosed as Ann I	Mine is worked by Underground Cut and fill method. Proposed & actual development is enclosed as Ann I	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Mine is worked by Underground Cut and fill method. Proposed & actual development is enclosed as Ann I	Mine is worked by Underground Cut and fill method. Proposed & actual development is enclosed as Ann I	
2c	Stripping ratio or ore to OB ratio	1:43	1:34	U/G MINE.
2d	Quantity of topsoil generation in m3	NA	NA	U/G MINE.
2e	Quantity of overburden generation in m3	10606 M3	9943M3	U/G MINE.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	----	...	The mine is run by shaft. Waste rock are mica schist, Quartz shist etc.Development in mtr is proposed 2450 mtr. but actually done is only 853 mtr. violation is given.

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Exploitation:

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Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Under ground Mine.	Under ground Mine.	Working with shafts.
3b	Quantity of ROM mineral production proposed	0.455 Million T.	0.328 Million T.	
3c	Recovery of sailable/usable mineral from ROM production	70%	70%	
3d	Quantity of mineral reject generation	..	...	Subgrade.
3e	Grade of mineral rejects generation and threshold value declared.	.....	.....	Subgrade.
3f	Quantity of sub grade mineral generation.	91179 m3	12791 m3	
3g	Grade of sub grade mineral generation	10-20% Mn.	10-20% Mn.	For future use.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	NA	

3j	Provision of drilling and blasting in mineral benches	Drilling in the drivage for haulage road, cross cut and ore drive will be done by pneumatically operated jack hammer of 33 mm dia of the length of 1.5 m.	Drilling in the drivage for haulage road, cross cut and ore drive will be done by pneumatically operated jack hammer of 33 mm dia of the length of 1.5 m.
3k	Provision of mining machineries in mineral benches	Drilling in the drivage for haulage road, cross cut and ore drive will be done by pneumatically operated jack hammer of 33 mm dia of the length of 1.5 m.	Drilling in the drivage for haulage road, cross cut and ore drive will be done by pneumatically operated jack hammer of 33 mm dia of the length of 1.5 m.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	SDL -65 HP with 0.66 M3, LHD- 4 T in U/G workings	SDL -65 HP with 0.66 M3, LHD- 4 T in U/G workings
3m	Total area covered under excavation/pits	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure.
3n	Ore to OB ratio for the pit/mine during the year.	1:43	1:34

3o	Total area put in use under different heads at the end of year	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure	2.633 ha. road, 13.5 ha. mining, 6.435 ha. dumps. 5.64 ha. mineral. & 14.977 infrastructure.
3p	Production of ROM mineral during the last five year period as applicable	2014-15=0.536 MT. 2015-16 =0.538 MT. 2016-17=0.540MT. 2017-18=0.426MT.2018-19=0.455MT.	2014-15=0.286 MT. 2015-16 =0.315 MT. 2016-17=0.297MT. 2017-18=0.326MT.2018-19=0.341MT.
3q	General remarks of inspecting officers on method of mining etc.	It is well developed mine worked with shafts, Cut & fill minig is practised by stoping.	It is well developed mine worked with shafts, Cut & fill mining is practised by stoping.

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	NA	NA	
4b	Location of topsoil, OB and mineral reject dumps	NA	NA	
4c	Number of dumps within lease area and outside of lease area	4 no.	ACTIVE DUMP= 1 ,Inactive dumps=3	old dumps.

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4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	NA	
4e	Number of active and alive dumps.	NA	NA	
4f	Number of dead dumps.	NA	NA	
4g	Number of dumps established.	NA	NA	
4h	Whether Retaining wall or garland drain all along dumps are there.	NA	NA	
4i	Length of Retaining wall or garland drain all along dumps	NA	NA	
4j	Number of settling ponds	NA	NA	
4k	Specific comments of inspecting officer on waste dump management	.....	37 (2): The protective measures to prevent flow of material from reject dump near south west of FM plant were not in place.	37 (2): The protective measures to prevent flow of material from reject dump near south west of FM plant were not in place.

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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.	Extraction by developing stops.	Extraction by developing stops. recovery around 70%.	IN U/G Backfilling by Waste (Genrated During Development) and Hydraulic Sand stowing

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5b	Area under backfilling of mined out area	NA	NA	IN U/G Backfilling by Waste (Generated During Development) and Sand
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	U/G MINING.
5d	Total area fully reclaimed and rehabilitated	NA	NA	U/G MINING.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	It is U/G mine cut & fill stoping practised sand filling is done.

#### Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	.....	.....	
6b	Area available for rehabilitation (ha) .	NA	NA	
6c	afforestation done (ha).		planation done in previos SOM period	143.375 Ha.
6d	No. of saplings planted during the year	NA	NA	
6e	Cumulative no .of plants			400883 Nos.
6f	Any other method of rehabilitation	NIL	NIL	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	1000M3/Yrs.	9943 m3	U/G mines.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA	U/G MINING.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA	U/G MINING.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA	U/G MINING.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA	U/G MINING.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NA	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NA.	NA.	

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NA	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	yes.	done.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	..	...	It is U/G mine. Cut & fill is practised.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade wise sorting.	1. Below 25% Mn to 35% Mn. And above Mn. grade wise sorting.	2. 25% and 46% and above Mn. grade wise sorting.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	
7c	Different grade of mineral sorted out at mines.	NA	1. Below 25% Mn 2. 25% to 35% Mn. And 46% and above Mn	
7d	Any beneficiation process at mines .	NA	Yes washing and jigging plant is there	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	The ore is sorted in various grades and then sold.	

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## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NA	NA	
8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	For subgrade	yes maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2000 trees / YEAR. as land available.	planted 1000 trees with 80% survival.	
8g	Survival rate	80%	80%	
8h	Water sprinkling on roads to control airborne dust	NA	NA	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	..	Mine is a developed U/G Mine.	Mine is a developed U/G Mine.

## Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Annual return is submitted From H2 on 17/07/2019 and Monthly return F2 on 09/08/2019 is submitted From F2 on 09/08/2019	Annual return is submitted From H2 on 17/07/2019 and Monthly return is submitted From F2 on 09/08/2019	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	yes.	Given, Manager; Mr. Bhati. Geologist : Mr. Rangdale. ME : N.V. Khedekar.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	....	No , 35.453 ha. in infrastructure.	U/G MINES.
9d	Scrutiny of Annual return on afforestation	...	1000 plants , 98 % survival.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	...	No rejects generated.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	.....	Yes , graded ore stocks totalling 19723 T.	Discrepance was observed in production of ore figures in return violation was given.It was defferent at three places.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	NA.	Ex mine -n grade 25-2200 Rs/T. 25-35% mn. 4477 Rs/T. CoP-5960.96, 46-35% mn. 20835 Rs./T	
9h	Scrutiny of Annual return on fixed assets	NA.	Fixed Asscts: Rs. 772741446/-	

9k	Scrutiny of Annual return on mining machineries	NA	yes the list is given.Fan,FE loader pumps etc. Fixed Asscts: Value of FA Rs.772741446/- Discrepance was observed in production of ore figures in return violation was given . It was defferent at three places.
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**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 11(1)	18-OCT-19		MCDR17 Rule 11(1)	18-OCT-19	24-FEB-20
MCDR17 Rule 37(2)	18-OCT-19	05-DEC-19	Rule 45(7)	18-OCT-19	24-FEB-20
MCDR17 Rule 33	18-OCT-19	05-DEC-19			
Rule 45(7)	18-OCT-19				

**Date :**

**(SANDEEP KUMAR SINGH)**

Indian Bureau of Mines