

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

**Mining Plan Modification REPORT**

**Nagpur regional office**

**Mine file No :** MP/BGT/MN-68/NGP

**Mine code :** 40MPR01069

- (i) Name of the Inspecting : **KQ14** ) **NARESH KUMAR KATARIYA**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Dr. G.G. Manekar (QP), Sk. Ruhul Amin (Mine Manager),  
Official with  
Designation
- (iv) Date of Inspection : 07-FEB-20
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **TIRODI ( 37.09 HA. )**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : BALAGHAT  
Village :  
Taluka :  
Post office :  
Pin Code :  
FAX No. : 07391047477  
E-mail : mm.td@moil.nic.in  
Phone : 07391047477
- (f) Police Station : Tirodi
- (g) First opening date : 01-AUG-73
- (h) Weekly day of rest : MON
2. Address for : MOIL LIMITED, Tirodi Mine,  
correspondance Post & Tehsil - Tirodi  
District - Balaghat (M.P.) - 481 449
3. (a) Lease Number : MPR0578
- (b) Lease area : 37.09
- (c) Period of lease :
- (d) Date of Expiry : 31-MAR-20
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 : M/s Manganese Ore (India) Ltd.  
Balaghat Mine, P.O.  
Bharveli, Distt. Balaghat  
BALAGHAT MADHYA PRADESH  
Phone: 40401/2209 (076  
FAX :

6. Date of approval of Mining :  
Plan/Scheme of Mining

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	
1b	Exploration over lease area for geological axis 1 or 2	NIL	NIL	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	No exploration in RY 2018-19	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20		Balance Dump reserves as on 01.04.2019 120000 MT	
1f	General remarks of inspecting officers on geology, exploration etc			Only dump working is proposed and being done in the lease area.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Dump working on dump BD-2	Dump working on dump BD-2	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NA	NA	
2c	Stripping ratio or ore to OB ratio	1:12	1:12	
2d	Quantity of topsoil generation in m3	NA	NA	

2e	Quantity of overburden generation in m3	7000 m3	6200 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Only dump working on progress.

---

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Nil (only dump working proposed)	Nil	
3b	Quantity of ROM mineral production proposed	1000 Te	800 Te	
3c	Recovery of sailable/usable mineral from ROM production	15%	11.5%	
3d	Quantity of mineral reject generation	6000 Te	6200 Te	
3e	Grade of mineral rejects generation and threshold value declared.	<20%	<20%	
3f	Quantity of sub grade mineral generation.	1000 Te	800 Te	
3g	Grade of sub grade mineral generation	10%-35%	10%-35%	
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.	Not proposed	No		
3j	Provision of drilling and blasting in mineral benches	No	No		
3k	Provision of mining machineries in mineral benches	By Shovel Dumpers	By Shovel Dumpers		
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	NA	NA		
3m	Total area covered under excavation/pits	Nil	Nil		
3n	Ore to OB ratio for the pit/mine during the year.	1 : 12	1 : 12		
3o	Total area put in use under different heads at the end of year	27.985 Ha	27.985 Ha		
3p	Production of ROM mineral during the last five year period as applicable	2017-18 Te 2018-19 Te 1000	2017-18 1107 Te 2018-19 800 Te		
3q	General remarks of inspecting officers on method of mining etc.				Only dump working is being done at the lease area.

---

Solid Waste Management - Dumping:

---

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

---

4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes	Separate dumping of sub grade mineral/ mineral rejects are not done properly as per approved mining plan.	Violation pointed out for the same.
4b	Location of topsoil, OB and mineral reject dumps	BD- 2 & WD-1	BD-02 is found in the 7.5 m barrier zone and within the common boundary of the other lease Main Tirodi Mine.	Violation pointed out for the same.
4c	Number of dumps within lease area and outside of lease area	02 within Lease area	02 within Lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	NA	NA	
4e	Number of active and alive dumps.	02 active dumps	02 active dumps	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed	Not done	
4i	Length of Retaining wall or garland drain all along dumps	NA	NA	
4j	Number of settling ponds	One	One	
4k	Specific comments of inspecting officer on waste dump management			

---

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.	Dump Mining	Dump Mining	
5b	Area under backfilling of mined out area	NA	NA	only dump working
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	
5d	Total area fully reclaimed and rehabilitated	Not proposed	NA	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			only dump working. No backfilling and reclamation proposed.

---

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).	Yes	Not submitted	Violation pointed out for the same.
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha) .	Nil	Nil	
6d	No. of saplings planted during the year	Nil	Nil	
6e	Cumulative no .of plants	Nil	3000 plants	

---

6f	Any other method of rehabilitation	Not proposed	NA
6g	Cost incurred on watch and care during the year	No	Not available
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	NA	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	NA	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NA	NA
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No	Nil



6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			yearly report in respect of rule 26(2) of MCDR 2017 has not been submitted for the year 2018-19. Violation pointed out for the same.

---

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	1000 Te	800 Te	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	25%-35%	25%-35%	
7d	Any beneficiation process at mines	Not proposed	NA	

---

7e General remarks  
of inspecting  
officer on  
Mineral  
conservation and  
beneficiation  
issues

---

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil available.	Nil	
8b	Concurrent use or storage of topsoil	No top soil available	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Waste & Mineral dump	Waste & Mineral dump	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	Dump mining only
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation	Plantation	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation has been done in the mine and aruond the mine area	Plantation has been done.	

---

8g	Survival rate	Not proposed	70-80 %	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Only dump mining is being done in the lease area.

---

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes	monthly return and annual return for the review period have not been filed in the electronic form	Violation pointed out for the same.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Annual Return not submitted	Appointment letter of whole time Mining Engineer and Mine Geologist have not been submitted for this lease area	Violation pointed out for the same.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	AR not submitted	Total put to use area is 27.985 Ha for different mining and alliaed activities.	
9d	Scrutiny of Annual return on afforestation	AR not submitted	AR not submitted	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	AR not submitted	AR not submitted	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	AR not submitted	AR not submitted	

---

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	AR not submitted	AR not submitted
9h	Scrutiny of Annual return on fixed assets	AR not submitted	AR not submitted
9k	Scrutiny of Annual return on mining machineries	AR not submitted	AR not submitted

---

**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-MAR-20			
MCDR17	Rule 11 (4)	18-MAR-20			
MCDR17	Rule 26 (2)	18-MAR-20			
MCDR17	Rule 35 (2)	18-MAR-20			
MCDR17	Rule 33	18-MAR-20			
MCDR17	Rule 45 (5) (k	18-MAR-20			
MCDR17	Rule 55 (1) (3)	18-MAR-20			

**Date :**

**(NARESH KUMAR KATARIYA)**

Indian Bureau of Mines