

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

Mining Plan inspection REPORT

Jabalpur regional office

Mine file No : MP/BGT//MN-194/NGP Vol.II

Mine code : 40MPR01016

- (i) Name of the Inspecting : **K006**) **NARESH KUMAR KATARIYA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh B Karpe, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 04-MAR-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SITAPATHORE**
- (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 : SITAPATORE
Taluka : KATANGI
Post office : SUKLI
Pin Code :
FAX No. : 0712-2592073
E-mail : moil_ngp@sancharnet.in
Phone : 0712-2590775
- (f) Police Station : TIRODI
- (g) First opening date : 01-JUL-62
- (h) Weekly day of rest : MON
2. Address for : MOIL BHAWAN, 1A-KATOL ROAD,
correspondance : CHAONI, NAGPUR
PIN-440013
3. (a) Lease Number : MPR0575
- (b) Lease area : 43.35
- (c) Period of lease : 20
- (d) Date of Expiry : 30-JUN-22
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the
Lessee : MANGANESE ORE INDIA LTD
BALAGHAT BALAGHAT MADHYA
PRADESH
Phone:
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	05 Nos. of DTH	05 Nos. of DTH drilled	
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	NIL	NIL	Proposal of core bore hole drilling is furnished in the next five year block. 36.802 Hect area to be explored to bring Geological axis G-1 as per MECM rules.
1e	Balance reserve as on 01/04/20		Balance Dump reserves as on 01.04.2021 --- 11229 tones	

1f	General remarks of inspecting officers on geology, exploration etc	The ore zone occurs in rocks of Munsar stage, which is having mainly coarse grained silliminite, muscovite schist. They strike in N25 ° E - S25 ° W with moderate to high dip towards west. The manganese ore horizon extends from a SW (pit6) to NE (pit 8) in general strike direction, with a oblitative attitude at pit No.3. The country rock to the East of ore is biotite gneiss & epidote gneiss, whereas on the other side it is felspathic mica schist & mica silliminite schist.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	PIT NO.6 & 8	PIT NO.6 & 8	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	04 OB benches are proposed & 01 ore bench proposed	OB: 04 benches Ore: 01 bench	
2c	Stripping ratio or ore to OB ratio	1:10	1:10	
2d	Quantity of topsoil generation in m3	NIL	NIL	

2e	Quantity of overburden generation in m3	120720 M3	110000 M3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Opencast mining method has been adopted for mine development. Mine development has been done from pit no. 06 & 08.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02Nos.(Pit No.6 & 8)	02Nos.(Pit No.6 & 8)	
3b	Quantity of ROM mineral production proposed	16900 Tonnes	16615 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	Bed:60% Dump:17%	Bed:60% Dump:17%	
3d	Quantity of mineral reject generation	6600 tonnes	6500 tonnes	
3e	Grade of mineral rejects generation and threshold value declared.	10-20%	10-20%	
3f	Quantity of sub grade mineral generation.	NIL	NIL	
3g	Grade of sub grade mineral generation	NIL	NIL	
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.	Analysis of the ore by developing small dimension pits	Analysis of the ore by developing small dimension pits
3j	Provision of drilling and blasting in mineral benches	DTH hammers of 110 mm by wagon drills	DTH hammers of 110 mm by wagon drills
3k	Provision of mining machineries in mineral benches	By Shovel Dumpers combination	Mine operation is being carried out by Shovel Dumper combination as per approved document. SHOVEL (HYDRAULIC) 0.900 CUM 01 no. TIPPER 10.000 CUM 04 nos. DOZER 90.000 HP 01 no. PUMPS (NON-ELEC.) 1200.000 L/MN 01 no. WATER TANKER 6000.000 LITRE 1 ROCK DRILL (NONELEC.) 110MM 01 nos.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	04 benches of OB and 01 bench of ore are developed for production as per proposal.
3m	Total area covered under excavation/pits	6.548 Ha	6.548 Ha
3n	Ore to OB ratio for the pit/mine during the year.	1:10	1:10
3o	Total area put in use under different heads at the end of year	19.811 Ha	19.200Ha
3p	Production of ROM mineral during the last five year period as applicable	2016-17=16900 2017-18=16900 2018-19=16900 2019-20=16900 2020-21= 16900	2016-17=12317 2017-18=12115 2018-19=16899 2019-20=16754 2020-21=16615

3q	General remarks of inspecting officers on method of mining etc.	Opencast working and dump working is being done in the lease area as per proposal of approved document.
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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)	Proposed seprate dumping of OB & Mineral Rejects.	Dumping seprately as per proposal	
4b	Location of topsoil, OB and mineral reject dumps	Mineral reject- 21°40'32.21"N 79°40'18.39"E OB Location- 21°40'37.62"N 79°40'30.23"E	Mineral reject- 21°40'32.21"N 79°40'18.39"E OB Location- 21°40'37.62"N 79°40'30.23"E	
4c	Number of dumps within lease area and outside of lease area	Within lease - 04 Outside - Nil	Within lease - 04 Outside - Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	On Foot wall side of pit outside to UPL	On Foot wall side of pit outside to UPL	
4e	Number of active and alive dumps.	04 dumps	04 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.	Yes	garland drain- 100 mtr	
4i	Length of Retaining wall or garland drain all along dumps	Garland drain - length not specified	garland drain- 100 mtr	

4j	Number of settling ponds	One	One	
4k	Specific comments of inspecting officer on waste dump management			Dump working is being done from the old dumps for mineral conservation. Waste dumps are being separated after extraction of ore.

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 proposed.	Full extraction of mineral in existing pit	
5b	Area under backfilling of mined out area	NIL	2.6 Hect	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed	No top soil generated as per records	
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backing filling was on progress in the area where mineral was fully extracted.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Report submitted
6b	Area available for rehabilitation (ha) .	NIL	NIL
6c	afforestation done (ha).	Not specified	0.2 Hect
6d	No. of saplings planted during the year	NIL	200 saplings
6e	Cumulative no .of plants	Not specified	2200 nos
6f	Any other method of rehabilitation	Not proposed	Not done
6g	Cost incurred on watch and care during the year	Maintained by departmental workmen	150 rupees per plant (approx 30000 in the year)
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	NIL	Backfilling is done in 2.4 Hect area which was old pit.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	Backfilling is done in 2.4 Hect area which was old pit.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NIL

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Not done	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed	Not done	
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	NA	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.			No Rehabilitation proposed in the lease area. Backfilling is done as per records in the old pit.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	16900 Tonnes	16615 Tonnes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	25%-46%	25%-46%	
7d	Any beneficiation process at mines .	Manual jigging	Manual jigging	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Opencast working and Dump working was being done with manual sorting and jigging for mineral conservation.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Applicable	No top soil proposed in the RY	
8b	Concurrent use or storage of topsoil	Not Applicable	Not Applicable	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed seperate Waste & Mineral dump	Implemented	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Backfilling of old pit was done by OB.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Backfilling was done.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	approx 2200 nos of plants in the lease area as per provided records.	
8g	Survival rate	80%	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			The entire lease area is forest land. The pit is surrounded by no. of plants.

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 submitted regularly in time	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Manager - Shri D Pantawme Mining Engineer - Shri D Pantawme Geologist - Shri S. Pani
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Pit- 5.848 Ha, Reclaimed area- 2.6 ha, Dump- 4.8 ha
9d	Scrutiny of Annual return on afforestation	Yes	Plantation of 200 plant in 0.2 Hect area
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	6600 Tonnes
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	ROM 16615 Tonnes
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	Exmine price 25 to <35 % Mn - Rs. 6412/- 35 to <46 % Mn - Rs. 12523 /-
9h	Scrutiny of Annual return on fixed assets	Yes	Rs 54.65 Lakhs
9k	Scrutiny of Annual return on mining machineries	Yes	Mine operation is being carried out by Shovel Dumper combination as per approved document. SHOVEL (HYDRAULIC) 0.900 CUM 01 no. TIPPER 10.000 CUM 04 nos. DOZER 90.000 HP 01 no. PUMPS (NON-ELEC.) 1200.000 L/MN 01 no. WATER TANKER 6000.000 LITRE 1 ROCK DRILL (NONELEC.) 110MM 01 nos.

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 :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines