

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

MCDR inspection REPORT

Nagpur regional office

Mine file No : MP/BGT/MN-214/NGP

Mine code : 40MPR01018

- (i) Name of the Inspecting : **KQ14**) **NARESH KUMAR KATARIYA**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh D.R. Dekate (Mine Manager), Sh. C.R.M Reddy (UG Man
Official with
Designation
- (iv) Date of Inspection : 27-SEP-21
- (v) Prev.inspection date : 05-MAR-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **UKWA**
- (b) **Registration NO.** : **IBM/5711/2011**
- (c) Category : A
- (d) Type of Working : Underground
- (e) Postal address :
State : MADHYA PRADESH
District : BALAGHAT
Village : UKWA
Taluka : BAIHAR
Post office : UKWA
Pin Code :
FAX No. : N.A.
E-mail : N.A.
Phone : N.A.
- (f) Police Station : BAIHAR
- (g) First opening date : 02-MAR-07
- (h) Weekly day of rest : FRI
2. Address for : UKWA MANGANESE MINES
correspondance : M/S MOIL, BAIHAR ROAD,
UKWA, BALAGHAT.
3. (a) Lease Number : MPR0580
- (b) Lease area : 199.07
- (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 : M/S MANGANESE ORE (INDIA) LTD.
 3, MOUNT ROAD EXTENSION
 POST BOX NO. 34, NAGPUR
 (MP) NAGPUR MAHARASHTRA
 Phone:
 FAX :

Owner : C.P.N.PATHAK
 3, MOUNT ROAD EXTN. POST
 BOX NO. 34 NAGPUR NAGPUR
 MAHARASHTRA
 Phone: 0712 - 2545703
 FAX : 0712 - 2524996

Agent : Shri. D.L.Choudhary
 PO- Sitasaongi Distt.
 Bhandara (MS) BHANDARA
 MAHARASHTRA
 Phone: 38231
 FAX :

Mining Engineer

Name : Shri A.V.Masade, Full Time
 Qualification : B.E.MINING
 Appointment/ :
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	24-OCT-02
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	08-OCT-07
		Mining Scheme rule 12 MCDR1988	30-AUG-13

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NA	NA	
1b	Exploration over lease area for geological axis 1 or 2	No Exploration Proposed	Not done	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	G-1- 88.22 Ha Area under mineralisation	
1e	Balance reserve as on 01/04/20		Balance reserve as on 01/04/2021 206843 Tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			At Ukwa deposit rocks belongs to Sitasaongi and Munsar Formation. The deposit has been drilled for the entire strike length by 25 nos of Boreholes for exploration.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Underground Horizontal Development (Drives) of 450 m and Vertical Development (Raise/Winze) of 180 m was proposed at various levels in the year 2020-21.	171 m Horizontal Development and 64 m Vertical Development has been carried out in the RY.	Violation pointed out for the same under rule 11(1) of MCDR-2017.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	UG cut and fill method	UG cut and fill method	
2c	Stripping ratio or ore to OB ratio	UG mining	UG mining	
2d	Quantity of topsoil generation in m3	Not applicable for UG mining	NA	
2e	Quantity of overburden generation in m3	Not specified	Not specified	Waste generated from U/G is used in backfilling of stopes
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine is being developed by UG cut and fill method. The mineral is deep sheeted.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	UG stopes development for Stoping	UG stopes development for Stoping	
3b	Quantity of ROM mineral production proposed	0.114 Million Tonnes	0.074 Million Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	90%	Approx. 90%	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	
3f	Quantity of sub grade mineral generation.	12500 Tonnes	Nil	No sub grade mineral reported in the RY.

3g	Grade of sub grade mineral generation	Below 20%	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.	Not proposed	Not done	
3j	Provision of drilling and blasting in mineral benches	Yes	Drilling in the drivage for haulage road, cross cut and ore drive is 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	Yes	Jack Hammer, Tipper- 110 Hp	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	UG cut and fill method with pre mining support followed by post filling by hydraulic sand stowing.	UG cut and fill method with pre mining support followed by post filling by hydraulic sand stowing.	As per proposal.
3m	Total area covered under excavation/pits	Not applicable	UG method of mining adopted.	
3n	Ore to OB ratio for the pit/mine during the year.	UG method of mining	Mine development is being done in the ore body. Incidental OB used for filling in the stoped out area.	
3o	Total area put in use under different heads at the end of year	50 Hect	50 Hect.	

3p	Production of ROM mineral during the last five year period as applicable	2016-17 0.032	2016-17 0.031
		2017-18 0.055	2017-18 0.051
		2018-19 0.092	2018-19 0.049
		2019-20 0.114	2019-20 0.089
		2020-21 0.114	2020-21 0.074

3q	General remarks of inspecting officers on method of mining etc.		UG cut and fill method with pre mining support followed by post filling by hydraulic sand stowing. Mine development is being done in the ore body. Incidental OB used for filling in the stoped out area.
----	---	--	---

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)			
4b	Location of topsoil, OB and mineral reject dumps			
4c	Number of dumps within lease area and outside of lease area	03 Mineral Reject/Subgrade Mineral dumps 08 Old White dumps	03 Mineral Reject/Subgrade Mineral dumps 08 Old White dumps	No dump observed out side the lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	UG working	UG working	
4e	Number of active and alive dumps.	03 dumps	03 dumps	
4f	Number of dead dumps.	08 nos	08 nos	
4g	Number of dumps established.	04 Nos	04 Nos	

4h	Whether Retaining wall or garland drain all along dumps are there.	Not applicable	Not done	
4i	Length of Retaining wall or garland drain all along dumps	Not applicable	Not done	
4j	Number of settling ponds	Not proposed	Not constructed	
4k	Specific comments of inspecting officer on waste dump management			OLD WASTE DUMPS (WHITE DUMPS) ARE OBSERVED IN THE LEASE AREA. NATURAL GROWTH OF PLANTATATION FOUND ON DUMP AREA .PRESENTLY ONLY U/G MINING IS BEING DONE. BLACK DUMP FOUND IN THE LEASE ARE FOR SUB GRADE/MINERAL REJECT AT THE PROPOSED PLACE.

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.	Full extraction of mineral proposed by UG mining. Backfilling of stoped out area is proposed after the complete extration of mineral.	Development work is on progress.	Area not matured for complete filling. Stopes partially filled by sand/waste material as per procedure of cut and fill method.
5b	Area under backfilling of mined out area	UG mining. Area under backfilling not specified	Not specified	

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	Not done	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Area not matured for complete filling. Stopes partially filled by sand/waste material as per procedure of cut and fill method.

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).	Yes	Submitted	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	NA	NA	NA
6d	No. of saplings planted during the year	5000 saplings in the waste land	Not done	Violation pointed out under rule 11(1) of MCDR-2017.
6e	Cumulative no .of plants	Not specified	No record	
6f	Any other method of rehabilitation	Not proposed	Not done	
6g	Cost incurred on watch and care during the year	Not specified	No record available	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed	NA	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed	Not done	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not applicable	NA	UG mine
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable	Not done	UG mine
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	Afforestation was proposed in 2 Hect area at waste land in the year 2020-21.	Plantation was not done as per proposal	Violation pointed out under rule 11(1) of MCDR-2017.
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	Not proposed	Not done	
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.			Afforestation was proposed in 2 Hect area at waste land in the year 2020-21. But, plantation was not done in the RY as per proposal. Violation pointed out under rule 11(1) of MCDR-2017.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within the lease area	1. Below 25% Mn 2. 25% to 35% Mn. 3. 35% Mn to 45% Mn	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	1. Below 25% Mn 2. 25% to 35% Mn. 3. 35% Mn to 45% Mn	1. Below 25% Mn 2. 25% to 35% Mn. 3. 35% Mn to 45% Mn	
7d	Any beneficiation process at mines	Jigging	Jigging	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting is proposed for maximum utilization of the mineral. No reject reported in the RY. The grades of the ore area reported as Below 25% Mn, 25% to 35% Mn & 35% Mn to 45% Mn.
----	--	---

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	UG mining method. Top soil removal not proposed	Not done as per available records.	
8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Old dumps of Waste rock & Mineral rejects observed.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Underground Mine (Waste generated from U/G is used in backfilling of stopes)	Waste generated from U/G is used in backfilling of stopes as per available records.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed	Not done	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation	Plantation observed in the surface area. Plantation proposed in the RY is not done as per proposal.	Violaiton pointed out for the same.
8g	Survival rate	80 %	80 %	
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	As per requirment.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation observed in the surface area of the mine.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes	Annual return of 2020-21 & Monthly returns from Apr-2020 to Mar-2021 submitted.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	Shri. Vivek Kumar (Mining Engineer) Shri. Shubham Anjankar (Geologist)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Yes	Excavation/pits 3.5 Top soil storage 0.3 Waste/Ob/IB dumps 2 Mineral rejects 0 Sub grade mineral stacks 0 Mineral stacks 0.47 Plants, buildings, Infrastructure etc. 0 Others (Specify) 0 Total area put in use under different heads at the end of year For which FA given 6.27	

9d	Scrutiny of Annual return on afforestation	Yes	Nil	Afforestation was proposed in 2 Hect area (5000 saplings) in the year 2020-21. But, plantation was not done in the RY as per proposal. Violation pointed out.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Yes	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Yes	ROM - 0.074 Million Tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Yes	As per AR	
9h	Scrutiny of Annual return on fixed assets	Yes	Cost of Production : 7667.43 /- Ex- Mine Price Below 25% Mn : 3787 /- 25 % to below 35 % Mn : 4157/- 35% to below 46% Mn : 11855 /-	
9k	Scrutiny of Annual return on mining machineries	Yes	Jack Hammer, Tipper	

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)	15-NOV-21			
MCDR17	Rule 11(4)	15-NOV-21			

Date :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines