

# MCDR-MiFLOMn/2/2022-JBP-IBM\_RO\_JBP

I/17463/2023

**INDIAN BUREAU OF MINES  
MINERALS DEVELOPMENT AND REGULATION DIVISION  
MCDR inspection REPORT  
Jabalpur regional office**

**Mine file No:**

**Mine code:38MPR26001**

- (i) Name of the Inspecting Officer and ID No. : MADHAVRAO SABRE, S0(24)
- (ii) Designation : Senior Mining Geologist
- (ii) Accompanying mine Official with Designation : Mr Mayank Jain Mine Manger ,  
Mr Shri. Shubham Anjankar Geologist.
- (iv) Date of Inspection : 22-Oct-22
- (v) Prev. inspection date : 27-Sep-21

**PART-I : GENERAL INFORMATION**

1. (a) Mine Name : Ukwa Manganese Mines
- (b) Registration NO. : IBM/5711/2011
- (C) Category : A, Manual
- (d) Type of Working : Underground
- (e) Postal address
- State : MADHYA PRADESH
- District : Balaghat
- Village : Ukwa
- Taluka : Baihar
- Post office : Ukwa
- Pin Code : 481105
- FAX No. : N. A.
- E-mail : moil\_ukwa@rediffmail.com
- (f) Phone : 9755718912
- (g) Police Station : UKWA
- (h) First opening date : 22-6-1962
- (i) Weekly day of rest : Friday
2. Address for correspondence : MOIL LTD,MOIL Bhawan A-I Katol Road Nagpur-13
3. (a) Lease Number :
- (b) Lease area : 199.067 Ha
- (c) Period of lease : 22-6-1962 to 21-6-2032
- (d) Date of Expiry : 30.06.2032
4. Mineral worked : Manganese
5. Name and Address of the Lessee& Owner : Shri MM Abdulla, MOIL LTD,MOIL Bhawan A-I Katol Road Nagpur-13
6. Date of approval of Mining Plan/Scheme of Mining : **Review of Mining Plan MP/ BGT/ Mn/ 63/ 2021-22/24/01/2022**

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PART - II: OBSERVATION/COMMENTS OF INSPECTING OFFICERS

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Exploration

SL. No	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	Nil	Nil	Nil
1b	Exploration overlease area for geological axis 1 or 2	Nil	02 Nos. B.H. (308 m)	NA
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA,	In house drilling rig of MOIL Rs. 699160/- Expenditure incurred.	NA
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	G-1 Axis = 48.51 ha G-2 Axis= 36.9 ha	NA
1e	Balance reserve as on 01/04/2022		111- 1206275 122- 1174187 221- 1398105	NA
1f	General remarks of inspecting officers on geology, exploration etc		At Ukwa deposit rocks belongs to Sitasaongi and Munsar Formation. It is a strata bound deposit.	NA

Development

SL. No	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	Horizontal Dev. = 240 m Vertical Dev. = 132 m	332m Horizontal Development and 132 m Vertical Development has been carried out in the RY.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NA	This is an Underground mine	
2c	Stripping ratio or ore to OB ratio	NA	This is an Underground mine	
2d	Quantity of topsoil generation in m <sup>3</sup>	-	This is an Underground mine	
2e	Quantity of overburden generation in m <sup>3</sup>	-	This is an Underground mine	Waste generated from U/G is used in

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				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	Proposals	Actual Work	Remarks
3a	Number of pit proposed for production	UG stopes development for Stoping	UG stopes development for Stoping	NA
3b	Quantity of ROM mineral production proposed	101500 T	94587 T	
3c	Recovery of sailable/usable mineral from ROM production	90%	100%	NA
3d	Quantity of mineral reject generation	10150	Nil	NA
3e	Grade of sub grade mineral generation	Mn content < 10	Nil	No sub grade mineral reported in the RY.
3f	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	NA
3g	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	NA	NA
3h	Provision of drilling and blasting in mineral benches	Yes	Drilling in the drive age 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.	
3i	Provision of mining machineries in mineral benches	Yes	Jack Hammer, Tipper- 110 Hp	NA

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3j	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.	NA
3k	Total area covered under excavation/pits	Not applicable	It is an underground mine	16.68 ha area is under mining activity
3l	Ore to OB ratio for the pit/mine during the year.	NA	UG method of mining	Mine development is being done in the ore body. Incidental OB used for filling in the stoped out area.
3m	Total area put in use under different heads at the end of year	Under excavation/pits - 16.68 Ha Min storage- 5.58 Ha, OB- 7.534 Ha, Total area Put to use : 43.739 Ha	Under excavation/pits - 16.68 Ha Min storage- 5.58 Ha, OB- 7.534 Ha, Total area Put to use : 43.739 Ha	
3n	Production of ROM mineral during the last five year period as applicable	2017-18 -32000T 2018-19 -55000T 2019-20 -114000T 2020-21 -114000T 2021-22 -101500T 2022-23 -114000T	2017-18 -23930T 2018-19 -49303T 2019-20 -89994T 2020-21 -74884T 2021-22 -94587T 2022-23-113946T	-
3o	General remarks of inspecting officers on method of mining etc.	-	-	-

Solid Waste Management - Dumping

SL. No	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not Proposed	Not proposed in reporting Year	-
4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	OB Dumping done at CH 3500	Violation pointed.
4c	Number of dumps within lease area and outside of lease area	04 Mineral Reject/Subgrade Mineral dumps 08 Old White	04 Mineral Reject/Subgrade Mineral dumps 08 Old White	-

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		dumps	dumps	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within UPL	Within UPL	
4e	Number of active and alive dumps.	04	04	
4f	Number of dead dumps.	08	08	
4g	Whether Retaining wall or garland drain all along dumps are there	Not proposed	Yes	
4h	Length of Retaining wall or garland drain all along dumps	Not proposed	650 m approximately	
4i	Number of settling ponds	Nil	Nil	
4j	Specific comments of inspecting officer on waste dump management	-	-	

Solid Waste Management - Backfilling

SL. No	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling	Nil	Nil	
5b	Area under backfilling of mined out area	Nil	Underground mined out stopes are backfilled by sand and waste rock	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Na	
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Not proposed in RY	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	This is an underground mine voids created by mining are backfilled by Sand and waste rock.	

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Progressive Mine Closure Plan

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SL. No	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Submitted for Fy 2021-22	
6b	Area available for rehabilitation (ha)	No proposal	NA	
6c	Afforestation done (ha)	2.0	2.0 ha	
6d	No. of saplings planted during the year	5000	5000	
6e	Cumulative noof plants	263000	263000	
6f	Any other method of rehabilitation	NA	NA	
6g	Cost incurred on watch and care during the year	Plantation	Work order Value : Rs. 3806000 ( Including GST)	
6h	Compliance on reclamation and rehabilitation by backfilling Voids available for backfilling (Lx B x D)	Proposed Backfilling by Sand: 30000m <sup>3</sup>	Actual Backfilling by sand : 24779m <sup>3</sup>	
6i	Compliance on reclamation and rehabilitation by backfilling Voids filled by waste / tailings	Nil	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling Afforestation on backfilled area	Yes on 2.0 Ha area	5000 saplings planted on 2.0 ha area during RY	
6k	Compliance on reclamation and rehabilitation by backfilling Rehabilitation by making water reservoir	Nil	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling any other specific means.	Nil	Nil	
6m	Compliance of rehabilitation of waste land within lease afforestation	Yes on 2.0 Ha area	5000 saplings planted on 2.0 ha area during RY	
6n	Compliance on rehabilitation of waste land within lease Area rehabilitation (ha)	Nil	Nil	
6o	Compliance of rehabilitation of waste land within lease Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer	Environment Monitoring proposed for	Being done regularly , all the	

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	zone)	core and buffer zone	parameters are within the prescribed limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		During the year 5000 saplings planted on 2.0 ha land. Voids created in U/g are backfilled by Sand.	

Mineral Conservation

SL. No	Item	Proposals	Actual Work					Remarks
7a	ROM Mineral grade-wise sorting within lease area	114000	94587					
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual					
7c	Different grade of mineral sorted out at mines	Yes	UKL-4445	Mn37%	-	+10mm to +3mm	P= 0.2%, SiO <sub>2</sub> =27,Fe=5%	
			UKL-549	Mn 30%	-	+10 mm to -3mm	P= 0.213%, SiO <sub>2</sub> =27.45,Fe=4.23%	
			UKL-471	Mn 20%	-	+10 mm to -3mm	P= 0.350%, SiO <sub>2</sub> =55,Fe=8%	
			UKL-448	Mn 25%	-	+10 mm to -3mm	P= 0.193%, SiO <sub>2</sub> =45,Fe=8%	
			UKL-550	Mn 25%	-	+10 mm to -3mm	P= 0.173%, SiO <sub>2</sub> =45.52,Fe=4.06%	
			UKF-532	Mn 25%	-	+10 mm to -3mm	P= 0.445%, SiO <sub>2</sub> =33,Fe=6.50%	
7d	Any beneficiation process at	yes	Manual sorting and screening					

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

Environment

SL No	Item	Proposals	Actual Work				Remarks	
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	Not proposed in RY					
8b	Concurrent use or storage of topsoil	Not Proposed	Not proposed in RY					
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes Proposed	1	Ch.1800	Active	Mineral Reject	Ch.1800	
			2	Ch.2200 (Proposed Site)	Active	Mineral Reject	Ch.2200 (Proposed Site)	
			3	Ch.6940 (Proposed Site)	Active	Mineral Reject	Ch.6940 (Proposed Site)	
			4	Ch.3700 to Ch.4600	Active	Waste Dump	Ch.3700 to Ch.4600	
			5	Ch.0	Inactive	Ch.0	Plantation Cover	
			6	Ch.2200 to Ch.3900	Inactive	Ch.2200 to Ch.3900	Plantation Cover	
			7	Ch.4800 to Ch.5700	Inactive	Ch.4800 to Ch.5700	Plantation Cover	
			8	Ch.7400 to Ch.9500	Inactive	Ch.7400 to Ch.9500	Plantation Cover	
			9	Ch.11200 to Ch.11800	Inactive	Ch.11200 to Ch.11800	Plantation Cover	
			10	Ch.13461 to Ch.13856	Inactive	Ch.13461 to Ch.13856	Plantation Cover	
			11	Ch.13956 to Ch.14356	Inactive	Ch.13956 to Ch.14356	Plantation Cover	
			12	Ch.2400 to Ch.3600	Inactive	Ch.2400 to Ch.3600	Plantation Cover	
8d	Use of overburden, waste rock, rejects and fines dumps Forrestoring	Not Proposed	Not Proposed in RY					



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	the land to its original use			
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Plantation proposed	Plantation done on 2.00 ha land during RY	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	Already carried out	
8g	Survival rate	80%	90%	
8h	Water sprinkling on roads to control airborne dust	Yes proposed	Water sprinkling is being carried out regularly.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	

## Compliance of Rule 45

SL. No	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly Return - Online return being submitted/Monthly Annual Return - Submitted .	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Mining Engineer - Vivek Kumar Geologist - Shubham Anjekar, Mine Manager Manager - Mayank Jain	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc	Yes	(i) Already exploited & abandoned by opencast (O/C) mining 0.00 (ii) Covered under current (O/C) Workings 0.00 (iii) Reclaimed/Rehabilitated 43.140 Ha (iv) Used for waste disposal 7.534 Ha (v) Occupied by plant, buildings, residential, welfare buildings & roads 14.149 Ha	

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			(vi) Other Purpose (Mineral Storage, Tailing Pond , Old excavated Pit water filled ) 22.056 Ha (vii) Work done under progressive minenclosure plan during the year 4.00 Ha																											
9d	Scrutiny of Annual return on afforestation	5000 saplings	5000 Saplings planted on 2.0 Ha.																											
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NA	NA																											
9f	Scrutiny of Annual return on ROM stock and/or graded ore		ROM Production : 94587 Closing stock at mines : 1101.987 T																											
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost		Ex mine Price : Below 25% Mn = Rs. 4209.39 25% to Below 35% = Rs. 5305.78 35% To below 46% Mn= Rs. 13231.71  Production Cost : Rs. 6990.72																											
9h	Scrutiny of Annual return on fixed assets		Total Value of Fixed Assets: Rs. 574437709/-																											
9i	Scrutiny of Annual return on mining machineries		<table border="1"> <tr> <td>VENTILATION FAN</td> <td>300.000 CUM/H</td> </tr> <tr> <td></td> <td>0.000</td> </tr> <tr> <td>ROCKDRILL (NON-ELEC.)</td> <td>32.000 MM</td> </tr> <tr> <td>GENERATOR (DIESEL)</td> <td>1500.000 KWH</td> </tr> <tr> <td>AIR COMPRESSOR</td> <td>1000.000 CUM/MN</td> </tr> <tr> <td>FRONT END LOADER</td> <td>0.900 CUM</td> </tr> <tr> <td>AIR COMPRESSOR</td> <td>600.000 CUM/MN</td> </tr> <tr> <td>BACK HOE</td> <td>1.100 CUM</td> </tr> <tr> <td>CONVEYOR (ELEC.)</td> <td>40.000 T/H</td> </tr> <tr> <td>CRANE</td> <td>12.000 TONNE</td> </tr> <tr> <td>EXPLOSIVE VAN</td> <td>1.000 TONNE</td> </tr> <tr> <td>FRONT END LOADER</td> <td>0.900 CUM</td> </tr> <tr> <td>JEEP/TRACTOR</td> <td>60.000 HP</td> </tr> </table>	VENTILATION FAN	300.000 CUM/H		0.000	ROCKDRILL (NON-ELEC.)	32.000 MM	GENERATOR (DIESEL)	1500.000 KWH	AIR COMPRESSOR	1000.000 CUM/MN	FRONT END LOADER	0.900 CUM	AIR COMPRESSOR	600.000 CUM/MN	BACK HOE	1.100 CUM	CONVEYOR (ELEC.)	40.000 T/H	CRANE	12.000 TONNE	EXPLOSIVE VAN	1.000 TONNE	FRONT END LOADER	0.900 CUM	JEEP/TRACTOR	60.000 HP	
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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	Rule NO.	Issued on

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	Compliance on		Compliance on

Date:13.09.2023

(MADHAVRAO SABRE)

Indian Bureau of Mines

Violations issued on previous inspection:

Rule 11(1) of MCDR 2017 : 1. Horizontal and vertical development was not carried out as per proposal.

(2) plantations were not carried out as per proposal.

3. Rule 11(4) Review of Mining Plan not submitted on time.