

**MCDR INSPECTION REPORT**

1) Name of Inspecting officer:	Ibrahim Sharief
2) Designation	DCOM
3) Accompanying mine official with designation	Mr Prashant Dakre Mine Manger, Mr Srinivas Budmaane, Mining Engineer,
4) Date of Inspection	16.10.2023

**Part-I: General**

S. N.	Particulars	Details
1	Name of the Mine	Lugma- Ukwa Manganese Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest : Nil Non-Forest: 69.581 Ha
3	Mine code	40MPR01044
4	IBM Registration Number under rule 45 of MCDR,1988	IBM/5711/2011
5	Name of the Lessee, Address, Phone, email and fax number	M/s. Moil Limited. Moil Bhavan,- A,KATOL ROAD,, NAGPUR PIN - 440013
6	Village	Lugma
7	Taluka/Mandal	Paraswada
8	District	Balaghat
9	Pin code	481105
10	State	Madhya Pradesh
11	Post Office	Ukwa
12	Nearest Police Station	Ukwa
13	Nearest Railway Station	Balaghat
14	Date of Grant of Mining Lease	15.12.1985
15	Date of Execution	14.07.1987
16	Date of opening of Mine	02-03-2007
17	Date of First Renewal, if applicable and its period & expiry	25/03/2011, 20 Years, 15/09/2005 to 14/09/2025
18	Date of Second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri MM Abdulla, MOIL LTD, MOIL Bhawan A-I Katol Road Nagpur-13 Date of Appointment: 19.10.2018
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri R U Singh
22	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Shri Mayank Jain
23	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri Madhur Kuhate
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes, Dr S K Sarkar
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in	18/05/2006, 12/05/2009 and 03/04/2019

	approval letter, if any.	
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	13/10/2016, 28/02/2020
27	Mineral(s) granted in lease and approved for Mining	Manganese
28	Method of Mining (Opencast, Underground)	Underground
29	Category (Fully Mechanized, Others or Manual)	Manual
30	Captive/Non-Captive	Non Captive

### Details about Mining Plan/ Mining Scheme

a) Letter No. and date of approval of mining plan	:	Review of Mining Plan MP/ Balaghat/ Manganese/RMP-34/2019-20 dated 28/02/2020
b) Letter No. and date of approval of mining scheme.	:	NA
c) Condition while approving the MP/ MS/ modification	:	-
d) Period of mining plan/ mining scheme in force	:	01.04.2020 to 31.03.2025

### PART III-MCDR Report details.

1. **Scientific Mining:** Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

#### Exploration

S.N.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	No proposal	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	No proposal	Nil	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2.	No proposal during the year	Nil	G1- 40.861 Ha, G2- 28.72 Ha
1e	Balance reserves as on 31.03.2023	111 -519772 Tonnes Depleted- 9910 Tonnes Balance- 509862		
1f	General remarks of Inspecting officer on geology, exploration etc.	There is manganese ore belonging to stratiform, stratabound deposit of regular habit. The ore body is explored by 23 bore hole, thickness varies between 0.27 to 6.10 mtr and of 3.03 mtr.the strike is N -300 to 85 o and S-350 to 650 and dipping in north west 20o to 300		

#### 2. Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	X cut-300 m, ore drive-280m, sub level-410 m, R/W-200 m at 1650 RL, 1550 RL, 1250 RL, shaft X cut	Development is carried out is less than the proposed	Less development is due to less production for want of statutory clearance
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Not Applicable	This is an Underground mine	

2c	Stripping ratio or ore to OB ratio	1:0	1:0	
2d	Quantity of Topsoil generation in m <sup>3</sup>	No proposal	Nil	
2e	Quantity of overburden generation in m <sup>3</sup>	8244	40	Less development is due to less production for want of statutory clearance
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	This is ug mine. development in raise winze is done.and haulage- 493mtr/593,309/400 mtr in raise winze is done. mining is done by over hand cut and fill stoping. Size of panel is 60 m, 30 m vertical level interval, Crown & Rib pillar thickness 5 m each, steel chute of 1.2 m dia circular, Backfilling of sand hydraulically from surface to stope by HDPE pipes.		

### **3. Exploitation FY 2023-24**

S. N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	UG, horizontal cut and fill with post filling. stopes development for Stopping, 1650 RL, 1550 RL, 1250 RL	UG stopes development for Stopping	
3b	Quantity of ROM mineral production proposed	100000 T	9910 T	Less production for want of statutory clearance, EC
3c	Recovery of Salable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral reject generation and threshold value declared	No proposal	Nil	
3f	Quantity of sub-grade mineral generation	No proposal	Nil	
3g	Grade of sub-grade mineral generation	NA	NA	
3h	Manual/Mechanized method adopted for segregation from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposal	Nil	
3j	Provision of drilling & blasting in mineral benches	Yes	Drilling 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	Jack Hammer, LHD, SDL, Pumps, Shaft winder, Front End Loader, Ventilation Fan	Jack Hammer, LHD, SDL, Pumps, Shaft winder, Front End Loader, Ventilation Fan	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	UG cut and fill method followed by post filling by hydraulic sand Stowing is suitable for this deposit.	UG cut and fill method followed by post filling by hydraulic sand Stowing is suitable	
3m	Total area covered under excavation /pits (Ha.)	1.50 Ha	1.5 Ha	
3n	Ore to OB ratio for the pit/mine during the year	1 : 0	1 : 0	
3o	Total area put in use under different heads at the end of year	7.85 Ha	5.13 Ha	
3p	Production of ROM mineral during last five-years period, as Applicable (in Tonnes)	2018-19 –10000 2019-20 –10000 2020-21 –45000 2021-22 –75000 2022-23 -100000	2018-19 – 7000 2019-20 – 9997 2020-21 – Nil 2021-22 – 8400 2022-23- 9910 T	
3q	General remarks of inspecting officer on method of mining etc	UG cut and fill method with pre mining support followed by post filling by hydraulic sand stowing.		

#### **4. Solid Waste Management-Dumping**

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Not Proposed	Nil	
4b	Location of topsoil, OB & mineral reject dumps	Not Proposed	Nil	
4c	Number of Dumps within lease area and outside lease area	No Proposal	Nil	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable	Nil	
4e	Number of Active & Alive dumps	No proposal	Nil	
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps established	No Proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	No Proposal	Nil	
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	
4j	Number of settling ponds	No Proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management	Waste generated is utilized in underground itself		

#### **5. Solid Waste Management-Backfilling**

S.N.	Item	Proposals	Actual Work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposal	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 mined out area (Rule 32)	Nil	Na	

5d	Total area fully reclaimed & rehabilitated (Ha)	Not Proposed	Nil in RY	
5e	General remarks of inspecting officer on backfilling, reclamation etc	This is an underground mine voids created by mining are backfilled by Sand and waste rock. At present no area is matured for backfilling		

### **6. Progressive Mine Closer Plan**

S.N.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 23E (2). Details should be given in the format as given in Annexure-20	Yes	Yes submitted in time	
6b	Area available for rehabilitation (Ha)	No Proposal	Nil	
6c	Afforestation done (ha)	1.0	1.00	
6d	No. of saplings planted during the year	2000	2000	
6e	Cumulative no. of plants	No such proposal	6400	
6f	Any other specific method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch & care during the year	Plantation	About Rs. 30000	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L X B X D).	No Proposal	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	Nil	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	No proposal	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	No Proposal	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	No Proposal	Nil	
6m	Compliance of Rehabilitation of waste land within lease (i) Afforestation	Yes on 1.0 Ha area	2000 saplings planted on 1.0 ha area during RY	
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation	No proposal	Nil	
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	Nil	
6p	Compliance of Environment monitoring (core zone & buffer zone)	Environment Monitoring proposed for core and buffer zone	Being done regularly, all the parameters are within the prescribed limit.	

6q	General remarks of inspecting officer on PMCP compliance & progressive closer operations	During the year 2000 saplings planted on 1.00 ha land. Voids created in U/g are backfilled by Sand.
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### **7. Mineral Conservation**

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	ROM produced is to be dispatched	ROM produced is being dispatched	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sort out at mine	Yes different grade above threshold value is being sorted and sized as per buyers requirement	Yes being done as proposed	
7d	Any beneficiation process at mines	Yes, Manual sorting and screening	Manual sorting and screening	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Mineral above threshold is being utilised		

### **8. Environment**

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	No proposal during the year	Nil	
8b	Concurrent use or storage of topsoil	No proposal during the year	Nil	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	No proposal during the year	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal during the year	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	No Proposal	Additional plantation done 2000 saplings done	
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 mine area			

### **9. Compliance of Rule 45 (2023-24)**

S.N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	Monthly Return – Online return being submitted/Month Annual Return -	

		Submitted							
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer –Shri Madhur Kuhate Geologist –Dr S K Sarkar, Mine manager – Mayank Jain							
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Covered under current Workings 0.08 (ii) Reclaimed-rehabilitated: 1.25 Ha (iii) Used for waste disposal : 1.0 Ha (iv) Occupied by plant, buildings, residential, welfare buildings & roads 2.8 Ha							
9d	Scrutiny of Annual return on afforestation	Actual- 2000Nos Survival rate- 90%							
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil							
9f	Scrutiny of Annual return on ROM stock and/or grade ore	ROM :Nil < 25% Mn- :10.62 T 25 to <35% Mn 1302.81 T 35 to <46% Mn 26.98 T							
9g	Scrutiny of Annual return on sale value, Ex.Mine price & production costs	Ex mine Price : Below 25% Mn = Rs. 3975.00 25% to Below 35% = Rs. 5363.09 35% To below 46% Mn= Rs.13735 Production Cost : Rs. 5408.79							
9i	Scrutiny of Annual return on Fixed assets	Total Value of Fixed Assets: Rs. Nil/-							
9k	Scrutiny of Annual return on mining Machineries	<table border="1"> <tr> <td>ROCKDRILL(NON-ELEC.)</td> <td>32.000 MM</td> </tr> <tr> <td>WINDING ENGINE (ELEC.) 1</td> <td>1000 KWH</td> </tr> <tr> <td>PUMP</td> <td>2000 L/MN</td> </tr> </table>	ROCKDRILL(NON-ELEC.)	32.000 MM	WINDING ENGINE (ELEC.) 1	1000 KWH	PUMP	2000 L/MN	
ROCKDRILL(NON-ELEC.)	32.000 MM								
WINDING ENGINE (ELEC.) 1	1000 KWH								
PUMP	2000 L/MN								

Details of violations observed during current inspection and compliance position of violation pointed out

Nil

Date:

Name: Ibrahim Sharief

Designation: Deputy Controller of Mines