

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 Manganese Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest : Nil Non-Forest: 48.974
3	Mine code	40MPR01084
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	20.11.2014
15	Date of Execution	03.12.2015 to 02.12.2065
16	Date of opening of Mine	10/10/2020
17	Date of First Renewal, if applicable and its period & expiry	NA
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 Prashant Dakre
23	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri Srinivas Budmaane
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes, Shri Anil Singh Rajputh
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in	19.05.2015

	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.	Review of Mining Plan MP/ Balaghat/ Manganese/RMP-30/2020-21 dated 14/12/2020
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-30/2020-21 dated 14/12/2020
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	
1e	Balance reserves as on 31.03.2023	122 -1.626 million Tonnes	122 -1.61826 Million Tonnes	
1f	General remarks of Inspecting officer on geology, exploration etc.	The Lugma area was explored with 19 Bore Holes, by G.S.I, CPMO and Chemical & Ferro Alloy (CFA), Tumsar, covering the total strike length of 1.60 kms. 19 Bore Holes drilled over Lugma. 1955 to 1960 CPMO had drilled during the year 1971-72 C&F had explored the area with 10 bore holes. And in the year 1976-79 GSI had explored the area with 5 boreholes and during the year 1971-72 C&F had explored the area with 10 bore holes.		

2. Development

S.N.	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area	UG mine-1550'L -540mtr horizontal. 165MTR vertical-winze	Development is carried out as proposed	
2b	Separate benches in topsoil overburden and mineral (Rule	Not Applicable	This is an Underground mine	

	15)			
2c	Stripping ratio or ore to OB ratio	1:0	1:0	
2d	Quantity of Topsoil generation in m ³	No proposal	Nil	
2e	Quantity of overburden generation in m ³	Nil	172	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	UG mine.The area of 48.974 ha is surrounded by other 2 leases, marked as lease I(199.067 ha.) and Lease II (73.567ha.) shown on surface plan. The surface area in lease 48.974 ha. is devoid of manganese outcrop. However, extensive drilling has established the presence of ore zone beneath the surface up to 950' L. The area 48.974 ha connects the adjoining lease of 73.567 Ha in eastern side and in western side at deeper levels from 1650'L to 850'L.mine will be run from shafts		

3. Exploitation FY 2023-24

S. N.	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	UG stopes development for Stopping	UG stopes development for Stopping	
3b	Quantity of ROM mineral production proposed	60000 T	17734 T	
3c	Recovery of Salable/usable mineral from ROM production	100%	Nil	
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 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	Jack Hammer, LHD, SDL, Pumps	Jack Hammer, LHD, SDL, Pumps	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	NA, UG cut and fill method w followed by post filling by hydraulic sand stowing.	UG cut and fill method followed by post filling by hydraulic sand stowing.	
3m	Total area covered under excavation /pits (Ha.)	0.08 Ha	0.08 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	3.995 Ha	0.08	
3p	Production of ROM mineral during last five-years period, as Applicable	2017-18 –32000T 2018-19 –92857 T 2019-20 –92857 T 2020-21 –Nil 2021-22 –40000T 2022-23 –60000 T	2017-18 –Nil 2018-19 –Nil 2019-20 – Nil 2020-21 – Nil 2021-22 – Nil 2022-23- 17734 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	within lease area - 08 Old White dumps	within lease area - 08 Old Waste dumps	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	within UPL	within UPL	
4e	Number of Active & Alive dumps	No proposal	Nil	
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps established	Not proposed	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Not proposed	Nil	
4i	Length of Retaining wall or garland drain all along dump	Nil	Nil	
4j	Number of settling ponds	No Proposal	Nil	
4k	Specific commends of inspecting officer on waste dump management	Nil		

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	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 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.		

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)	0.50	0.50	
6d	No. of saplings planted during the year	1000	1000	
6e	Cumulative no. of plants	No such proposal	1000	
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).	Proposed Backfilling by Sand: 30000m ³	Actual Backfilling by sand : 28000 m ³	
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 0.5 Ha area	1000 saplings planted on 0.50 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 1000 saplings planted on 0.50 ha land. Voids created in U/g are backfilled by Sand.		

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 customer 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)	Not Proposed	Nil	
8b	Concurrent use or storage of topsoil	Not Proposed	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)	Plantation proposed	Plantation done on 0.500 ha land during RY	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	No Proposal	Additional plantation 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–Vivek Kumar Geologist–Shubham Anjekar, 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) Occupied by plant, buildings, residential,welfare buildings & roads 0.01 Ha									
9d	Scrutiny of Annual return on afforestation	Actual- 1000Nos 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- :6219.92 T 25 to <35% Mn 642.74 T 35 to <46% Mn 84.33 T									
9g	Scrutiny of Annual return on sale value, Ex.Mine price & production costs	Ex mine Price : Below 25% Mn = Rs. 3348 25% to Below 35% = Rs. 7017.33 35% To below 46% Mn= Rs.14465 Production Cost : Rs. 6199									
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"> <tbody> <tr> <td>VENTILATION FAN</td> <td>300.000 CUM/H</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</td> <td>1000.000 CUM/MN</td> </tr> </tbody> </table>	VENTILATION FAN	300.000 CUM/H	ROCKDRILL(NON-ELEC.)	32.000 MM	GENERATOR (DIESEL)	1500.000 KWH	AIR	1000.000 CUM/MN	
VENTILATION FAN	300.000 CUM/H										
ROCKDRILL(NON-ELEC.)	32.000 MM										
GENERATOR (DIESEL)	1500.000 KWH										
AIR	1000.000 CUM/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