

**INDIAN BUREAU OF MINES**  
**MINERALS DEVELOPEMENT AND REGULATION DIVISION**  
**MCDR Inspection REPORT**  
**Jabalpur Regional office**

**Mine Code: 40MPR01084**

(i)	Name of Inspecting officer	:	Shri Sudip Ranjan Mazumdar
(ii)	Designation	:	Regional Mining Geologist
(iii)	Accompanying mine official with Designation	:	Shri Prashant Dakre, Mine Manager Shri Vivek Kumar, Mining Engineer Shri Anil Singh Rajput, Geologist Shri Niraj Pashine, Surveyor
(iv)	Date of Inspection	:	04.10.2024
(v)	Previous Inspection date	:	16.10.2023

**PART-I: GENERAL INFORMATION**

1	(a)	Mine Name	:	Lugma Manganese Mine
	(b)	Registration Number	:	IBM/5711/40MPR01084
	(c)	Category	:	Category A
	(d)	Type of Working	:	Underground
	(e)	Postal address	:	
		State	:	Madhya Pradesh
		District	:	Balaghat
		Village	:	Lugma
		Taluka	:	Paraswada
		Post Office	:	Ukwa
		Pin code	:	481105
		Fax	:	NA
		email	:	moilindia_ngp@sancharnet.in
		Phone No	:	7410084445
	(f)	Police Station	:	Ukwa
	(g)	First Opening date	:	NA
	(h)	Weekly day of rest	:	Sunday
2	Address for Correspondence		:	
3	(a)	Lease Area	:	48.974 Ha.
	(b)	Period of lease	:	50 Years
	(c)	Date of Expiry	:	02.12.2065
4	Mineral Worked (Main)		:	Manganese
5	Name of address of the Lessee with Phone, email and fax number		:	M/s MOIL LIMITED, (A Government of India Enterprise) MOIL Bhawan, 1A, Katol Road, Nagpur-440013 Email: moilindia_ngp@sancharnet.in Telephone: 0712-2590775, Fax: 0712-2592073
	Name and address of the Owner/Nominated Owner with Phone, email, fax number and Date of appointment		:	Shri M.M. Abdulla Director (Prod. & Planning), MOIL LIMITED, MOIL Bhawan, 1A, Katol Road, Nagpur-440013 Phone: 0712-2590775, Fax: NA; Email: mma@moil.nic.in Date of Appointment: 10/01/2022

	Name and address of the Agent with Phone, email, fax number and Date of appointment	:	Shri Rajesh Kumar Singh, Agent & Joint General Manager (Mines) Gr.-I, MOIL LIMITED, Balaghat Mine (M.P.) 481002 Phone: 7410084445 Fax: NA Email: rajesh_rajikhushi@rediffmail.com Date of Appointment: 26/10/2021
	Name of address of the Manager with Phone, email, fax number and Date of appointment	:	Shri Prashant Dakre, MOIL LIMITED, Ukwa Mine, District – Balaghat (M.P.) 481105 Phone: 9424752481 Fax: NA Email: mm.uk@moil.nic.in Date of Appointment: 13.06.2023
	Mining Engineer Name Qualification Date of Appointment	:	Shri Udit Bothra, B.Tech. (Mining) Date of Appointment – 20.06.2023
	Geologist Name Qualification, Date of Appointment	:	Shri Anil Singh Rajput Qualification: M.Sc. (Applied Geology) Date of Appointment – 08.05.2011
6	Date of approval of Mining Plan/Review of Mining Plan etc.	:	Review of Mining Plan approved vide letter no MP/Balaghat/Manganese/RMP-30/2020-21 Jabalpur dated 14.12.2020 for the proposal period 2020-21 to 2024-25

### 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	2022-23: Not Proposed	Nil	Nil
1b	Exploration over lease area for Geological axis 1 or 2.	2023-24: Not Proposed	2023-24: 7 Bhs have been drilled	Nil
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Nil	Expenditure Incurred: Rs 2984896	Nil
1d	Balance area to be explored to bring the Geological axis in 1 or 2.	Proposed to explore in G1 Level as per Review of mining plan period	Balance 9.01 ha area is to be converted in G1	Drilling Proposal has been furnished in the Review of Mining Plan approved dated 07/02/2025 for the proposal period 2025-26 to 2029-30.
1e	Balance reserves as on 01.04.2024	At the beginning of the year 01.04.2023, reserve was 1608126 tones.	Depletion of reserves during the year was 40538 tones. Balance reserves as on 31.03.2024 was 1567588 tones	Reserves as reported in annual return for 2023-24.
1f	General remarks of Inspecting officer on geology, exploration etc.	Balance 9.01 ha area is to be converted in G1. Drilling Proposal has been furnished in the Review of Mining Plan approved dated 07/02/2025 for the proposal period 2025-26 to 2029-30.		

**Development**

S.No	Item	Proposals	Actual Work	Remarks
2a	Location of Development w.r.t. lease area for the year 2023-24	HR 195 M X CUT 330 M OD 180 M Sub level 420 m Winze 300 m	HR 181.30 m OD 182.50 m Winze 28.50 m	Nil
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Not Proposed	Nil	Underground Mining operation
2c	Stripping ratio or ore to OB ratio	Not Proposed	Nil	-do-
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	-do-
2e	Quantity of overburden generation in m3	Not Proposed	Nil	-do-
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development has been carried out at 1650' L, 1550' L, 1450' L, 1050' L and 950 ' L.		

**Exploitation FY 2023-24**

S. No	Item	Proposals	Actual Work	Remarks
3a	Number of pits proposed for production	Not Proposed	Nil	Underground Mining operation
3b	Quantity of ROM mineral production proposed	92857 tones	40538 tones	The proposal has been reviewed in the Review of Mining Plan approved dated 07/02/2025 for the proposal period 2025-26 to 2029-30
3c	Recovery of Salable/usable minerals from ROM production	65000 tones	40538 tonnes	-do-
3d	Quantity of mineral reject generation	27857 tones	Nil	-do-
3e	Grade of mineral reject generation and threshold value declared	10% Mn	Nil	-do-
3f	Quantity of sub-grade mineral generation	27857 tones	Nil	-do-
3g	Grade of sub-grade mineral generation	10-20% Mn	Nil	-do-
3h	Manual/Mechanized method adopted for segregation from ROM	Semi-Mechanized UG Mine with manual sorting	Semi-Mechanized UG Mine with manual sorting	Nil
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not Proposed	Nil	Nil
3j	Provision of drilling & blasting in mineral benches	Not Proposed	Nil	Nil
3k	Provision of mining machineries in mineral benches	Not Proposed	Nil	Nil
3l	Whether height of benches in overburden and mineral suitable for method of	Not Proposed	Nil	Nil

	mining proposed in MP/SOM			
3m	Total area covered under excavation /pits (Ha.)	Not Proposed	Nil	Nil
3n	Ore to OB ratio for the pit/mine during the year	Not Proposed	Nil	Nil
3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of year will be 3.955 Ha	Total area put in use under different heads at the end of year is 0.44 Ha	FA over 7.91 Ha has been furnished in the RMP approved dated 07/02/2025
3p	Production of ROM mineral during last five-years period, as Applicable	2020-21 - Nil 2021-22 – 57143 tones 2022-23 – 85714 tones 2023-24 – 92857 tones	2020-21- Nil 2021-22- 140 tones 2022-23- 17734 tones 2023-24- 40538 tones	Nil
3q	General remarks of inspecting officer on method of mining etc.	Underground Mining operation is in practice.		

**Solid Waste Management-Dumping**

S.N.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	There was no proposal for top soil generation. The waste generated from UG development will back filled in underground stopes.	The waste generated from underground is being used for backfilling of stopes.	Nil
4b	Location of topsoil, OB & mineral reject dumps	No proposal	No proposal	Nil
4c	Number of Dumps within lease area and outside lease area	Number of dumps within lease area - 1 Outside lease area: Nil	Number of dumps within lease area - 1 Outside lease area: Nil	Nil
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	E 444799, N 2430419	E 444799, N 2430419	Nil
4e	Number of Active & Alive dumps	01	01	Nil
4f	Number of dead dumps	Nil	Nil	Nil
4g	Number of dumps established	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there	Not Proposed	Nil	Nil
4i	Length of Retaining wall or garland drain all along dump	Not Proposed	Nil	Nil
4j	Number of settling ponds	Not Proposed	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	Solid waste management was carried out as per proposal.		

**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	Not Proposed	Nil	Waste generated is backfilled in underground working levels
5b	Area under backfilling of mined out area	Not Proposed	Nil	Waste generated is backfilled in underground working levels
5c	Concurrent use of topsoil for restoration or rehabilitation of	Not Proposed	Nil	Not applicable

	mined out area (Rule 32)			
5d	Total area fully reclaimed & rehabilitated (Ha)	Not Proposed	Nil	Nil
5e	General remarks of inspecting officer on backfilling, reclamation etc	Backfilling is done as per proposal.		

**Progressive Mine Closure 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	The holder of a mining lease shall submit to the competent authority a yearly report as per the format specified by the Indian Bureau of Mines, before 1 <sup>st</sup> day of July report every year	The annual return on PMCP has been submitted timely.	Nil
6b	Area available for rehabilitation (Ha)	Not Proposed	Nil	Nil
6c	Afforestation done (ha)	0.50 ha	0.50 Ha.	Nil
6d	No. of saplings planted during the year	1000 nos	1000 nos	Nil
6e	Cumulative no. of plants	1000 Nos.	1000 Nos	Nil
6f	Any other specific method of rehabilitation	Not Proposed	Nil	Nil
6g	Cost incurred on watch & care during the year	Rs 250/plant	Rs 250/plant	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i)Voids available for backfilling (L X B X D).	Not Proposed	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	Not Proposed	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	Not Proposed	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	Not Proposed	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means	Not Proposed	Nil	Nil
6m	Compliance of Rehabilitation of waste land within lease (i)Afforestation	Not Proposed	Nil	Nil
6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation	Not Proposed	Nil	Nil
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	Not Proposed	Nil	Nil
6p	Compliance of Environment monitoring (core zone & buffer zone)	Proposed	Carried out	Nil
6q	General remarks of inspecting officer on PMCP compliance & progressive closer operations	The PMCP compliance was carried out.		

**Mineral Conservation**

S.N.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Grade-wise sorting	Grade-wise sorting	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Semi-mechanized	Semi-mechanized	Nil
7c	Different grade of mineral sort out at mine	Not Specified	<25% Mn, 25% to Below 35% Mn & 35% to below 46% Mn	Nil
7d	Any beneficiation process at mines	Not Proposed	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Grade wise sorting carried out as proposed.		

**Environment**

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Not Proposed	Nil	Nil
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	Nil
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	There was no proposal.	Back filling in underground is being done as per proposal	Nil
8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Back filling in underground is proposed	Back filling is being done	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Nil	Nil
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Not Specified	1000 nos	Nil
8g	Survival rate	Expected survival rate: 80%	Survival rate: 80%	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Carried out	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Aesthetic beauty in and around mines is maintained.		

**Compliance of Rule 45 (2023-24)**

S.N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	Annual Return for 2023-24 has been submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer, Geologist and Manager have been employed in the mines.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Occupied by plant, buildings, residential, welfare buildings and roads: 0.08 Ha; Used for any other purpose (specify) road: 0.2 Ha etc.	Nil
9d	Scrutiny of Annual return on afforestation	Number of saplings planted during the year : 1000 Nos	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Mineral reject generation was Nil.	Nil
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Closing stock of ROM was Nil	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	The ex-mine price for below 25% is Rs. 2554.89 /tonne, 25% to below 35% Mn is Rs 5840.29/tonne and 35% to blow 46% is Rs12766.34/ton.	Nil
9i	Scrutiny of Annual return on Fixed assets	Nil	Nil
9k	Scrutiny of Annual return on mining Machineries	Rock drill -10 Nos., Pumps – 02 Nos etc.	Nil

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
Nil			

Date:

(SUDIP RANJAN MAZUMDAR)  
Indian Bureau of Mines