

MINERALS DEVELOPEMMENT AND REGULATION DIVISION

I/4558/2023

MCDR inspection REPORT

Jabalpur regional office

Mine file No : MP/JABALPUR/MANGANESE ORE 17 Mine code : 40MPR18006

- (i) Name of the Inspecting : G006) ABHISHEK RANJAN GAUTAM
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri R K Mishra, Lessee representative
Official with
Designation
- (iv) Date of Inspection : 30-NOV-22
- (v) Prev.inspection date : 29-FEB-20

PART-I : GENERAL INFORMATION

1. (a) Mine Name : DARSHANI 5.70HA.
- (b) Registration NO. : IBM/16352/2013
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : JABALPUR
Village :
Taluka :
Post office :
Pin Code :
FAX No. : 07622222771
E-mail : bagaria_group@rediffmail.co
Phone : 07622408167
- (f) Police Station : SIHORA
- (g) First opening date : 01-AUG-13
- (h) Weekly day of rest :
2. Address for :
correspondance :
3. (a) Lease Number : MPR2299
- (b) Lease area : 5.7
- (c) Period of lease : 30
- (d) Date of Expiry : 02-MAY-41
4. Mineral worked : MANGANESE ORE Main
OCHRE Associated
LATERITE Associated
IRON ORE Associated

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5. Name and Address of the

Lessee : KAMAL LIME INDUSTRIES
PROP.KISHORE KUMAR STATION
ROAD KATNI MADHYA PRADESH
Phone:07622-223767/223730
FAX :07622-222771

Owner : SHREE KAMAL LIME INDUSTRIES
STATION ROAD KATNI MP KATNI
MADHYA PRADESH
Phone:
FAX :

6. Date of approval of Mining : Mining Scheme rule 12 MCDR1988 21-APR-16
Plan/Scheme of Mining : MP review under 17(1) MCR 2016 20-JUL-21

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	14 nos. of Bore hole proposed n the year 2021-22	Propose exploration not carried out	Violation pointed out under rule 11(1).
1b	Exploration over lease area for geological axis 1 or 2	Exploration was proposed for geological axis G1	Exploration not carried out	Violation pointed out under rule 11(1).
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Proposed	Not carried out as per the proposals	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration was proposed for geological axis G1	Not carried out as per the proposals	
1e	Balance reserve as on 01/04/20		Reserves in Tonnes Proved(111) -8256 MT- Iorn Ore & 57565 Mn Ore Resources in tonnes Feasibility(221): 1890 MT Iorn Ore & 10614 MT Mn Ore As on 01.04.2022 as per AR 2021-22	
1f	General remarks of inspecting officers on geology, exploration etc			Exploration not done as per proposal. Violation pointed out under rule 11(1).

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Pit will be advanced from north-eastern to central part of the lease area. the proposed bench height will be 3m and width 3m proposed.	Mine working was carried out as per the proposed locations.	

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2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top soil generation not proposed during the year. Separate bench in mineral proposed	No top-soil generation during this year. Bench height of 3 to 4m maintained in limestone for systematic mining.
2c	Stripping ratio or ore to OB ratio	1: 2.33 Tonne/CuM proposed during the year	No mine waste generated during the year the year 2021-22
2d	Quantity of topsoil generation in m3	Not Proposed	Nil
2e	Quantity of overburden generation in m3	During the year 2021-22 total 4350 CuM mine waste generation was proposed	During the year 2021-22 no mine waste generated.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Mine working was carried out as per the proposed locations.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit in the central part of the lease area.	Mine working were carried out as per proposals for Iron & Mn ore.	
3b	Quantity of ROM mineral production proposed	During the year 2021-22 Iron ore - 886 Tones Manganes Ore - 4972 Tones	During the year 2021-22 Iron ore - 700 Tones Manganes Ore - 4600 Tones	
3c	Recovery of sailable/usable mineral from ROM production	Recovery of 5% of Iron Ore & 20% of Mn ore proposed	Recovery acheived as per the proposals	
3d	Quantity of mineral reject generation	Not Proposed	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No mineral reject generation in lease area

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3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	
3g	Grade of sub grade mineral generation	Not Proposed	Not applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	Manual sizing & sorting carried out	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Temporary wet screening/beneficiation noticed within lease area.	
3j	Provision of drilling and blasting in mineral benches	Small dia 32mm shallow depth drilling & blasting is proposed by Jack hammer	Drilling & blasting using jack hammer carried out Small dia 32mm shallow depth.	
3k	Provision of mining machineries in mineral benches	Front end loader, - 1.20Cum capacity Dumper model - 20 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Tractor with Water Tank on trolley Water pump with Diesel engine	Front end loader, - 1.20Cum capacity Dumper model - 20 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Tractor with Water Tank on trolley Water pump with Diesel engine	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No OB bench height is proposed Bench height of 3m proposed in mineral	Bench height in ore maintained as per the proposals	Proposed bench height is suitable as per the deposit
3m	Total area covered under excavation/pits	4.6075 Ha area was proposed in approved ROM period i.e. 2021-22 to 2025-26	2.446 Ha as on 01.04.2022 as per annual return 2021-22.	

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3n	Ore to OB ratio for the pit/mine during the year.	1: 2.33 Tonne/CuM proposed during the year	No mine waste generated during the year the year 2021-22
3o	Total area put in use under different heads at the end of year		As per the Annual Return 2021-22 as on 01.04.2 Pits-2.446 Ha Waste Dumps-0.347 Ha Reclaimed/Rehabilitated-0.045Ha Infrastructure-0.183Ha Green belt-0.024Ha
3p	Production of ROM mineral during the last five year period as applicable	2017-18-: 3510MT (Iron) + 19704 MT (Mn) 2018-19-: 3505MT (Iron) + 19678 MT (Mn) 2019-20-: 3200 MT (Iron) + 17963 MT (Mn) 2020-21-: 2998 MT(Iron) + 16830 MT (Mn) 2021-22-: 886 MT(Iron) + 4972 MT (Mn)	2017-18-: 1252MT (Iron) + 7581 MT (Mn) 2018-19-: Nil (Iron) + 370 MT (Mn) 2019-20-: 375 MT (Iron) + 1010 MT (Mn) 2020-21-: 2998 MT(Iron) + 4660 MT (Mn) 2021-22-: 700 MT(Iron) + 4600 MT (Mn)
3q	General remarks of inspecting officers on method of mining etc.		Mechanised open cast working proposed by using Excavator /JCB & dumper combination with shallow drilling & blasting using jack hammer.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of mine was proposed	Mine waste not generated during the year	No top soil & OB generation proposed during the year.
4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	One mine waste dumps is located in between E404750 to E404910 & N2600525 to N2600415	

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4c	Number of dumps within lease area and outside of lease area	One dump	One dump	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping was proposed at E404750 to E404910 & N2600525 to N2600415	Dumping outside UPL proposed	
4e	Number of active and alive dumps.	One dump	One dump	
4f	Number of dead dumps.	Not Proposed	No dead dumps within ML area	
4g	Number of dumps established.	Not Proposed	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed	prepared around the dump	
4i	Length of Retaining wall or garland drain all along dumps	Proposed	prepared around the dump	
4j	Number of settling ponds	Not Proposed	Nil	
4k	Specific comments of inspecting officer on waste dump management			Mining lease area is mostly devoid of any OB/Top soil. About 70% phyllitic waste generated from ROM.

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.	None of the pit area is fully mineral/ore exhausted.	Backfilling was proposed during approved plan periodn over 7.5m barrier zone	
5b	Area under backfilling of mined out area	Backfilling was proposed during approved plan periodn over 7.5m barrier zone	Backfilling not done ase per proposal	Violation pointed out under rule 11(1).

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5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Nil	No top soil generated proposed during the year
5d	Total area fully reclaimed and rehabilitated	Backfilling was proposed during approved plan periodn over 7.5m barrier zone	Backfilling not done ase per proposal	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Huge quantity of mine waste gneration proposals are given, hence scope of reclamation by backfilling very well exist in the lease area. But, presently not pits have been fully mineral exhausted.

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).	To be submitted before 1st July of every year	Submitted	
6b	Area available for rehabilitation (ha) .	Not proposed	Not applicable	
6c	afforestation done (ha).	215 Saplings proposed for plantation	215 Saplings planted during the year	
6d	No. of saplings planted during the year	215 Saplings proposed for plantation	215 Saplings planted during the year	
6e	Cumulative no .of plants	Not provided	Not applicable	
6f	Any other method of rehabilitation	Not Proposed	Not applicable	
6g	Cost incurred on watch and care during the year	Not provided	Not applicable	

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6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	backfilling proposed in 7.5m barrier zone	Not done
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling proposed by waste material	Backfilling done by waste material
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not Proposed	Not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	Not applicable
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	Not applicable
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	Not applicable
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	Not applicable

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6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Carried out as per the proposals	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			In most of the working pits areas, ore is already existed hence scope of backfilling doesnot exist. Periodic monitoring is being carried out by outsourced consultant.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	886 MT Iron ore & 4972 MT Mn ore proposed as total ROM production for despatch. Grade wise sorting proposed within lease area.	700 MT Iron ore & 4600MT Mn ore production carried out during the year 2021-22	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposed as Manual	Manual sorting is done	
7c	Different grade of mineral sorted out at mines.	Proposed within lease area	Iron ore having 75% Fe2O3 proposed to supply in steel & Mn Ore having 34% MnO2 for Ferro Alloys ind proposed	
7d	Any beneficiation process at mines	Not Proposed	Temporary screening of ore carried out	

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7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Mineral is being conserved by grade wise sorting in the lease area steel grade iron ore and manganese ore for ferro alloys plants. Grade wise stacking is done on earmarked locations.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	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)	Separate dumping proposed for mine waste	No mine waste generated during the year	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Mine waste proposed for backfilling	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	215 Saplings proposed to be planted	200 Saplings planted within lease area	

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8g	Survival rate	Proposed as 70%	Acheived as 70%	Low survival rate due to scarcity of water in lease area
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is done by water tanker	Water tanker of 3KL capacity is provided for the purpose
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around mine area is not much satisfactory as plantation not done up to that extent. Hence, it was instructed to propose maximum nos of saplings final ROMP.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. submitted upto- November-22 A.R. submitted upto- 2021-22	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Shri Shrinivas Mishra as Geologist and Shri M.P. Yadav as Mining engineer were appointed.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		As per the Annual Return 2021-22 as on 01.04.2 Pits-2.446 Ha Waste Dumps-0.347 Ha Reclaimed/Rehabilitated- 0.045Ha Infrastructure-0.183Ha Green belt-0.024Ha	
9d	Scrutiny of Annual return on afforestation		215 Saplings were planted during the year with 70% survival	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		No mineral rejects generated	

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9f	Scrutiny of Annual return on ROM stock and/or graded ore	Mn Ore O/S-Nil MT Despatch-1566.355 MT C/S-38819.685 MT Iron Ore O/S-Nil Despatch-86.400 MT C/S-Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Mn Ore- Ex-Mine price : Rs 1500/Tonne Iron Ore- Ex-mine price: Rs 500/Tonne Cost of production- Rs 322.65/Tonne
9h	Scrutiny of Annual return on fixed assets	Nil
9k	Scrutiny of Annual return on mining machineries	Front end loader, - 1.20Cum capacity Dumper model - 20 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Tractor with Water Tank on trolley Water pump with Diesel engine

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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)	03-JAN-23			
MCDR17	Rule 27(1)	03-JAN-23			
MCDR17	Rule 31(1)	03-JAN-23			
MCDR17	Rule 34(1)	03-JAN-23			

Date :**(ABHISHEK RANJAN GAUTAM)**

Indian Bureau of Mines