

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION
MCDR INSPECTION REPORT
BANGALORE REGIONAL OFFICE

File No - MCDR-MiFLOMn/4/2023-BNG-IBM_RO_BNG

Mine Code- 40KAR19029

General

S. N.	Particulars	Details
1	Name of the Mine	Shivsandra Manganese Ore Mine (ML No – 2636)
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	21.38 Ha (Govt. Revenue Land)
3	Mine Code	40KAR19029
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/7264/2011
5	Name of the lessee, Address, phone, email and fax number	Smt. Sunanda. V.Allum Gadigi Palace Car Street, Ballari Ph: 9448113500 e-mail: sunandaallum@gmail.com
6	Village	Shivasandra
7	Taluk/Mandal	Gubbi
8	District	Tumkur
9	Pin Code	572211
10	State	Karnataka
11	Post office	Kondali
12	Nearest police station	Choluru
13	Nearest Railway station	Amma sandra
14	Date of Grant of Mining Lease	28/05/2010 Valid up to 27.05.2060, as per MMDR (Amendment) Act 2015.
15	Date of Execution	28/05/2010
16	Date of opening of Mine	
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	NA

21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	NA
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Sri. R. Kenchappa Gadigi Palace Car Street, Ballari Ph: 9880020784 21 years' Experience DOA: 15-10-2011 e-mail: apmines@yahoo.co.in
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri. R. Kenchappa Amogha Nursing Home, 3 rd cross, Parvathi Nagar, Ballari, Karnataka – 583101 21 years' Experience DOA: 01/10/2017 e-mail: apmines@yahoo.co.in
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Mining Engineer-1 Geologist-1 (Shri. Pappaka Ravi Kumar).
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Vide Letter no 279/954/2007/BNG/1449 dated 19/06/2015 valid from 2015-16 to 2019-20
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Vide Letter no 279/954/2007/BNG/481 dated 06/05/2020 valid from 2020-21 to 2024-25.
27	Mineral(s) granted in lease and proved for mining	Manganese ore
28	Method of Mining (Opencast, Underground)	Open Cast
29	Category (Fully Mechanized, Others or Manual)	A-OTFM
30	Captive/ Non captive	Non captive
31	Date of inspection	17/12/2024
32	Name of accompanying mine officials with designation	Sri. R. Kenchappa Mines Manager

Exploration

S.N.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	NA	Maintenance work of 12 bore holes previously

				done in 2020-21.
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal	NA	G1- 5.41 Ha G3- 3.12 Ha 12.85 Ha Non mineralized area
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposal	NA	
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	-	Entire lease area explored under G1 level.
1e	Balance reserves as on 01.04.2024	Balance Reserve - 91,300 tonnes Balance Resource – 12135 tonnes Total reserve /Resource – 103435 tonnes.		As per AR-2023-24.
1f	General remarks of inspecting officer on geology, exploration etc.	Manganese Ore in the lease is present in the central to Northern part of the Lease. The Mn reef is having a length of 250m and width of 60m and depth of 40m. The grade of the Ore varies from 10.6% to 26% Mn. In addition to Mn Ore, Iron Ore float is also proved in N to NW part of the lease over a depth of 1 to 4m with a grade from 47% to 53% Fe. However, Iron Ore is not included in the ML deed. The entire Lease area has been explored under G1 level with 31 Trial pits during 2015 and 12 core boreholes over 232m in the year 2019-2020& 2020-2021.		

Development

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
2a	Location of development w.r.t. lease area	N1476854 N1476705 to E691350 E691602	N1476854 N1476705 to E691350 E691602	As per the field inspection Development carried out within proposed area.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in Overburden proposed.	Separate benches in Overburden maintained.	2 benches in OB & 2 Benches in Ore
2c	Stripping ratio or Ore to OB ratio	1:2.19	1:2.0	As per the AR-2023-24.
2d	Quantity of topsoil generation in m3	No proposal	NA	No generation of

				top soil, working within broken up area.
2e	Quantity of overburden generation in m ³	21,918 Cum	18000 Cum As per the AR-2023-24.	-
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The Mine is developed as a single pit over 3.73 Ha with 2 benches in the Over burden and 2 benches in the Mineral whose height are varying from 3-5 and width from 3-9m suitable for the type of the deposit. However, at places bench height and width were found not maintained as per the Approved MP. Violation issued.		

Exploitation

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
3a	Number of pits proposed for production	One	One	One pit proposed
3b	Quantity of ROM mineral production proposed	9000 tonnes	8000 tonnes	As per AR-2023-2024.
3c	Recovery of salable/usable mineral from ROM production	25% - mineral 75% - waste	25% - mineral 75% - waste	Waste handled separately and stored in dump.
3d	Quantity of mineral reject generation	1000 tonnes	1000 tonnes	Stocked separately (crushed fines).
3e	Grade of mineral reject generation and threshold value declared	15% Mn	15% Mn	Iron Ore is not included in the ML deed and therefore produced and separately stacked as Mineral Reject.
3f	Quantity of sub-grade mineral generation	No proposal	NA	
3g	Grade of sub-grade mineral generation	No proposal	NA	

3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Manual with deployment of labors by hand sorting & picking.
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	No proposal	
3j	Provision of drilling & blasting in mineral benches	No proposal	No proposal	
3k	Provision of mining machineries in mineral benches	Provided as per MP Excavator-1 Trucks-4 Wheel loader-1 Water tanker -1	Excavator-1 Trucks-4 Wheel loader-1 Water tanker -1	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3-5 Mts Height 3-9 Mts Width	Not maintained as per the proposal.	During inspection it is observed that bench height and width at places between section line between D-D' & G G' the height of the benches are exceeding the proposed height and width of the benches are less than the bench height thereby deviating from the approved proposals. Violation pointed out.

3m	Total area covered under excavation/pits	3.73Ha	3.73 Ha	As per AR-2023-24.
3n	Ore to OB ratio for the pit/mine during the year	1:2.19	1:2.0	As per AR-2023-24.
3o	Total area put in use under different heads at the end of year	Mining – 3.520 Dumps — 1.212 Occupied by plant, building, welfare buildings and roads- 1.360 Green belt, afforestation & RR works- 7.480 Work done under PMCP- 0.100 Others:7.708 Total - 21.38	Mining – 3.520 Dumps — 1.212 Occupied by plant, building, welfare buildings and roads- 1.360 Green belt, afforestation & RR works- 7.480 Work done under PMCP- 0.100 Others:7.708 Total - 21.38	
3p	Production of ROM mineral during last five-year period, as applicable	2019-20 :9000 2020-21 :9000 2021-22 :9000 2023-24 :9000 2023-24 :9000 (in tonnes)	2019-20 :0000 2020-21 :1600 2021-22 :7800 2023-24 :9900 2023-24 :8000 (in tonnes)	
3q	General remarks of inspecting officer on method of mining etc.	The Mine is operated by open cast method with combination of excavator and tipper combination without proposals of drilling and blasting. Mineral sorting is done both by mechanized method for size screening and manual method for separating waste and is suitable for the type of Ore and its grade and scale of operations.		

Solid Waste Management-Dumping

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping for OB Proposed.	Separate dumping is done.	
4b	Location of topsoil, OB & mineral reject dumps	For OB N1476857 N1476716 to	For OB N1476800 N1476850 to	Iron Ore is not included in the ML deed and therefore produced and

		E691594 E691730 For reject N1476779 N1476729 to E691140 E691205	E 691600 E691700 For reject N1476779 N1476729 to E691140 E691205	separately stacked as Mineral Reject. Mineral reject is stocked separately.
4c	Number of dumps within lease area and outside lease area	Dump within lease area	Dump within lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Maintained as per the proposal.	
4e	Number of active & alive dumps	1 no.	1 no.	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	No proposal	No proposal	Stabilized by plantation
4h	Whether Retaining wall or garland drain all along dumps are there	No proposal	NA	Only the maintainance work has carried out.
4i	Length of Retaining wall or garland drain all along dump	No proposal	NA	Only the maintainance work has carried out.
4j	Number of settling ponds	No proposal	NA	
4k	Specific comments of inspecting officer on waste dump management.	No proposal for retaining wall in this financial year, only the maintainance work has carried out.		

Solid Waste Management-Backfilling

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
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5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No proposal	NA	
5b	Area under backfilling of mined out area	No proposal	NA	Mineral persists at depth and hence no proposal.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No proposal	NA	
5d	Total area fully reclaimed & rehabilitated	No proposal	NA	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Mineral exists at depth and backfilling and reclamation does not arise.		

Progressive Mine Closure Plan

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	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.	Annual report on PMCP to be submitted by 1 st July 2024	PMCP for the year 23-24 is submitted. 24 June 2024 (As per IBM Mail –Latest format).	
6b	Area available for rehabilitation (ha)	NA	NA	
6c	Afforestation done (ha)	0.34	0.34	
6d	No. of saplings planted during the year	850	1700	70 % survival rate as per the AR-2023-24.
6e	Cumulative no. of plants	15325		
6f	Any other specific method of rehabilitation	NA	Plantation	

6g	Cost incurred on watch & care during the year		1.25 lakhs	Appears to be correct.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D).	No proposal	NA	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.	No proposal	NA	NA
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.	No proposal	No proposal	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.	No proposal	No proposal	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means.	No proposal	No proposal	NA
6m	Compliance of Rehabilitation of waste land within lease (i) Afforestation.	No proposal	No proposal	NA

6n	Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha)	No proposal	No proposal	NA
6o	Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation	No proposal	No proposal	NA
6p	Compliance of Environmental monitoring (core zone & buffer zone).	Environmental monitoring (core zone & buffer zone) Proposed	Environmental monitoring (core zone & buffer zone) Done	Air monitoring stations Core zone-3 Buffer -3 Water monitoring Core zone- 1 Buffer -1 Noise monitoring Core zone- 5 Buffer -3 All the environmental parameters were observed within permissible limits
6q	General remarks of inspecting officer on PMCP compliance & progressive closure operations	PMCP activities carried out as per proposal.		

Mineral Conservation

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within the lease area.	Carried out as per the proposal.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Proposed Manual	Manual with deployment of labors by hand sorting & picking.	
7c	Different grade of mineral sorted out at mines	No proposal	No proposal	
7d	Any beneficiation process at mines	No proposal	NA	NA
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The Ore is manually sorted hence separating it from the waste for improving the recovery & its grade. Grade wise sorting proposed within the lease area.		

Environment

S.N.	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	No generation of top soil	Work is carried out in broken up area.
8b	Concurrent use or storage of topsoil	No proposal	No proposal	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed	Yes, done as per approved Mine plan	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	No proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	No proposal	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	0.341Ha 850 nos.	0.34 Ha 1700 nos., As per AR-2023-24.	Plantation Carried out as per the proposal.
8g	Survival rate	70%	70%	

8h	Water sprinkling on roads to control airborne dust	Proposed	Done as per proposal.	One water tankers of 5000 L capacity used.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	As per the environmental aspects, around Mine area is seems to be satisfactory.		

Compliance of Rule 45

S.N.	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to: 05-12-2024 up to date. A.R. Submitted up to: 29-06-2024 up to date.		
S.N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager- Shri. R.Kenchhapa Mining engg. – Shri. Rapaka Anil, Geologist – Shri. Kopparthi Sudheer	As per the AR-2023-24.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining – 3.520 Dumps — 1.212 Occupied by plant, building, welfare buildings and roads- 1.360 Green belt, afforestation & RR works- 7.480 Work done under PMCP- 0.100	Mining – 3.520 Dumps — 1.212 Occupied by plant, building, welfare buildings and roads- 1.360 Green belt, afforestation & RR works- 7.480 Work done under PMCP- 0.100	As per the AR-2023-24.
9d	Scrutiny of Annual return on afforestation	No of trees planted 1700 nos.	Trees Planted 1700 nos.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mineral reject generated -1000 tons	Appears to be correct.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock ROM- 200 tons	Appears to be correct.	
9g	Scrutiny of Annual return on sale value,	Ex mine price: 1. < 25% Mn lumps -Rs. 2071.92	Appears to be correct as per AR-2023-24.	

	Ex. Mine price & production cost	2. 25-35 % Mn lumps - Rs. 2949.95 Production cost: Rs. 1779			
9h	Scrutiny of Annual return on fixed assets	Rs. 778894	As per AR 2023-24.		
9i	Scrutiny of Annual return on mining machineries	Back Hoe	1	As per the AR-2023-24. Seems to be correct.	On the day of inspection, the mine remained temporarily discontinued.
		Wheel Loader	1		
		Tipper	4		
		Water Tanker	1		
		Others	1		

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

Details of violations observed during current inspection and compliance position of violation pointed out					
Violation			Show cause		
Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on
11(1), 11(4) & 28 of MCDR, 2017.	17.01.2025	--	-	-	--

(ASHISH KUMAR BEHERA)
Assistant Mining Geologist