

MCDR INSPECTION REPORT(2022-23)

S. N.	Particulars	Details
1	Name of the Mine	SHIVASANDRA MANGANESE ORE MINES
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	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	Sri.Prasad Gadigi Palace Car Street, Ballari
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 20 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	Rapaka Anil BE Mining 5 years 2Y-11 M in Benita Industries Ltd 2Y 6M in Chandrashekar Reddy Quartz

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		Mines. Ph : 8328409263 Not on Rolls on the date of Inspection.
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Anil N L M.Sc.-Geology 5Years Experience Not on Rolls on the date of Inspection.
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/1449Dated 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)	Mechanized.
30	Captive/ Non captive	Non captive
31	Date of inspection	15/03/2024
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	
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal	NA	
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	No Proposal	Nil	Entire lease area explored under G1 level.
1e	Balance reserves as on <u>01.04.2023</u>			99300MT as per AR2022-2023.
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 (2022-	Actual work	Remarks
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		23)	(2022-23)	
2a	Location of development w.r.t. lease area	N1476855 N 1476750to E691350 E691598	N1476820 N 1476745to E691350 E691550	Development carried out with in the proposed grid intervals.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in Overburden proposed	Separate benches in Overburden maintained	12 No benches in OB and 2 benches in Ore
2c	Stripping ratio or ore to OB ratio	1:4.55	1:4.4	As per the AR-2022-23 1: 4.4.
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 m3	18955 cum	22000 cum	As per the AR-2022-23
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 (2022-23)	Actual work (2022-23)	Remarks
3a	Number of pits proposed for production	One	One	One pit as proposed.
3b	Quantity of ROM mineral production proposed	10000 t	9900tonnes	As per AR-2022-2023.
3c	Recovery of salable/usable mineral from ROM production	25%-mineral 75%waste	25%-mineral 75%-waste	Nil
3d	Quantity of mineral reject generation	1000 ton 7546 tons	1000 tons 9900 tons	Mn mineral rejects Iron Ore Float Both materials stockedseparately
3e	Grade of mineral reject generation and threshold value declared	10% MN 50 Fe%	10% MN 50Fe%	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	No proposal	
3g	Grade of sub-grade mineral generation	No proposal	No proposal	
3h	Manual / Mechanized method adopted for segregating from ROM	Manual	Manual	Manual with deployment of labors for 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	Proposed Excavator-1 Trucks-4 Wheel loader-1 Water tanker -1 MSP-1	Provided as per MP Excavator-1 Trucks-4 Wheel loader-1 Water tanker -1 MSP-1	Only One wheel loader and one excavator were parked idle in the Mine site as the mine not working on the day of inspection.
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	3-5Mts Height 3-9Mts Width	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 issued.
3m	Total area covered under excavation/pits	3.73Ha	3.73 Ha	As per AR-2022-2023.
3n	Ore to OB ratio for the pit/mine	1:5.41	1:4.4	As per the AR-2022-2023.

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	during the year			
3o	Total area put in use under different heads at the end of year	Mining –3.14 Dumps — 1.034 Mineral storage :1.17 Infrastructure-Office, workshop etc :0.09 Roads :0.31 Green Belt- 2.26 Afforestation -5.09 Ha R@R Engineering works : 0.07 Others:8.216 Total - 21.38	Mining –3.14 Dumps — 1.034 Mineral storage :0.33 Infrastructure-Office,workshop etc :0.09 Roads :0.31 Green Belt- 2.26 Afforestation -5.09 Ha R@R Engineering works : 0.07 Others:8.216 Total - 21.38	
3p	Production of ROM mineral during last five-year period, as applicable	2018-19 : 10000 2019-20 : 10000 2020-21 :10000 2021-22 : 10000 2022-23 : 10000 (in tonnes)	2018-19 : 1100 2019-20 : 0 2020-21 : 1750 2021-22 : 7700 2021-22: : 9900 (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 (2022-23)	Actual work (2022-23)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Separate dumping for OB and Mineral rejects Proposed.	Separate dumping for OB and Mineral rejects done.	
4b	Location of topsoil, OB & mineral reject dumps	For OB N1476857 TO N 1476716 E 691594TO E 691730 For reject (MN) N 1476810 N 1476777 to E 691083 E 691112 For reject (FE) N1476772 N 1476729 to E 691151 E 691205	For OB N1476800 TO N 1476700 E 691600TO E 691700 For reject (MN) N 1476800 N 1476750 to E 691060 E 691100 For reject (FE) N1476772 N 1476729 to E 691160 E 691200	Iron Ore is not included in the ML deed and therefore produced and separately stacked as Mineral Reject. Mineral reject is stocked separately.

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4c	Number of dumps within lease area and outside lease area	Dump within lease area 1Nos	Dump within lease area 1Nos	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Dumps are out side UPL	
4e	Number of active & alive dumps	1 no s	1 no s	
4f	Number of dead dumps	0	0	
4g	Number of dumps stabilized	No proposal	No proposal	Inactive part of the active dump is Stabilized by Plantation.
4h	Whether Retaining wall or garland drain all along dumps are there	97 m x 2m x1m	Nil	Violation issued for not carrying out the proposed construction of RW and GD.
4i	Length of Retaining wall or garland drain all along dump	95 m x 3m x2.5m	Nil	
4j	Number of settling ponds	No proposal	No proposal	
4k	Specific comments of inspecting officer on waste dump management.	One dump is maintained with terracing and is stabilized with few engineering structures. However, the proposed construction of RW and GD for the year 2022-2023 not carried out and violation issued.		

Solid Waste Management-Backfilling

S.N.	Item	Proposals(2022-23)	Actual work (2022-23)	Remarks
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 persists at depth and backfilling and reclamation does not arise.		

Progressive Mine Closure Plan

S.N.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E		21.08.2023	

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	(2). Details should be given in the format as given in Annexure-20.			
6b	Area available for rehabilitation (ha)	NA	-	
6c	Afforestation done (ha)	0.41	0.41	-
6d	No. of saplings planted during the year	1025	650	50% survival rate Violation issued for deviating from the proposals.
6e	Cumulative no. of plants	NA	13625	-
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	No proposal	NA
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings	No proposal	No proposal	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	No proposal	No proposal	NA

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	waste land within lease (i) Afforestation			
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(corezone&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	Some of the PMCP activities are not carried out as proposed like afforestation, Construction of Retaining Wall and Garland drains. Violations issued.		

Mineral Conservation

S.N.	Item	Proposals (2022-23)	Actual work (2022-23)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within the lease area.	Grade wise sorting done within the lease area.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Proposed Manual	Manual with deployment of labors for 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

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7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The Ore is manually sorted thereby separating it from the waste for improving the recovery & its grade thereby taking care of the mineral conservation aspects.
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Environment

S.N	Item	Proposals (2022-23)	Actual work(2022-23)	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)	0.41Ha 1025Nos	0.41 Ha 650nos	As per AR-2022-23. Violation issued for deviation.
8g	Survival rate	50%	50%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Done as per proposal.	One water Tanker of 5000 L capacity used for dust suppression.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area.	Aesthetic beauty in and around the Mine is satisfactorily.		
Compliance of Rule 45				
S.N	Item	COMMENTS		Remarks
9a	Status of	M.R. Submitted up to:Feb 2024 A.R. Submitted up to: 2022-23 on		

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	submission of Monthly and Annual returns	30.06.2023		
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	Manager- R Kenchappa, Mining Engineer - Vinodh Kumar Geologist -Anil N L	No Mining Engineer & Geologist present on the day of inspection.	Violation/ Show Cause Notice issued.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining – 3.140 Dumps — 1.034 Occupied by plant, buildings, residential, welfare buildings and roads – 1.570 Used for any other purpose (specify) green belt, afforestation, R&R works – 7.40 Work done under progressive mine closure plan during the year -0.10 Others : 8.349 Total - 21.38	Mining – 3.140 Dumps — 1.034 Occupied by plant, buildings, residential, welfare buildings and roads – 1.570 Used for any other purpose (specify) green belt, afforestation, R&R works – 7.40 Work done under progressive mine closure plan during the year -0.10 Others : 8.349 Total - 21.38	
9d	Scrutiny of Annual return on afforestation	650 no saplings within ML area with survival rate -70%	It was proposed for plantation of 1025 saplings as per the approved RUMP and lagging from the approved proposals.	Violation issued.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mn rejects - 0 Fe- rejects -9900 tons grade 40Fe%	As per the Review and Updation of Mining Plan document approved vide letter no. 279/954/2007/BNG dated 06/05/2020 , It was proposed to produce 9000 Metric Tonnes of Mn Ore and 1000 Metric Tonnes of Mn Ore Rejects. However, Production of 9900 Metric Tonnes of Manganese Ore and 9900 Metric Tonnes of Manganese Ore rejects under PART-V (General Geology & Mining) 3. Subgrade-Mineral Reject (in tonnes) (MANGANESE ORE) totaling to 19800 Metric	

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			tonnes reported which is a deviation from the Maximum approved quantity in the Mining Plan and Environmental Clearance dated 20/09/2008. Show Cause Notice issued										
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM MN- 9900 tons	Appears to be correct.										
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value: 1877 Ex mine price : 1851 Production cost : 1713											
9i	Scrutiny of Annual return on fixed assets	Rs. 916345											
9k	Scrutiny of Annual return on mining machineries	<table border="1"> <tr> <td>BACK HOE</td> <td>1</td> </tr> <tr> <td>WHEEL LOADER</td> <td>1</td> </tr> <tr> <td>TIPPER</td> <td>4</td> </tr> <tr> <td>WATER TANKER</td> <td>1</td> </tr> <tr> <td>Others</td> <td>1</td> </tr> </table>	BACK HOE	1	WHEEL LOADER	1	TIPPER	4	WATER TANKER	1	Others	1	On the day of inspection, the mine remained temporally discontinued and only Back Hoe, and wheel loader were found parked iddle.
BACK HOE	1												
WHEEL LOADER	1												
TIPPER	4												
WATER TANKER	1												
Others	1												

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

Violation observed	Compliance on	Show cause position	Compliance on
RuRule NO. Issued on	Compliance on	Rule NO. Issued on	Compliance on
11(1),28,55(3)(ii) 19/4/24		45(7) 19/4/24	

(DR.SURESH PRASAD)
REGIONAL CONTROLLER OF MINES.