

Indian Bureau of Mines
Minerals Development and Regulation Division
MCDR Inspection Report
Hyderabad Regional Office.

Mine File No: AP/VZNR/MN-42/HYD, Vol-II

Mine Code:-40APR20045

1) Name of Inspecting officer:	Shri. M.K. Kalmata
2) Designation	Regional Mining Geologist
3) Accompanying mine official with designation	Mr.S.Appala Naidu, Mines Manager & B.Ramana Murthy, Geologist.
4) Date of Inspection	26-03-2024
5) Date of previous Inspection	23-09-2023

Part-I: General

S.No.	Particulars	Details
1	Name of the Mine	Avagudem Manganese Mine.
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	13.868Ha(Non-Forest)
3	Mine code	40APR20045
4	IBM Registration Number under rule 45 of	IBM/536/2011
5	Name of the lessee, Address, phone, email and fax number	M/s.R.B.S.S.D & F.N.Das, DFN office, Shreeram Nagar Post, Garividi Mandal, Vizianagaram District, Andhra Pradesh-535101. Ph:- 9676828686. E-mail:-rbssdfndasvzm@gmail.com
6	Village	Avagudem
7	Taluka/Mandal	Garividi
8	District	Vizianagaram
9	Pin code	535101
10	State	Andhra Pradesh
11	Post office	Shreeram Nagar
12	Nearest police station	Garividi
13	Nearest Railway station	Garividi
14	Date of Grant of Mining Lease	16-11-1965
15	Date of Execution	08-03-1968
16	Period	50 years, 06-12-2025.(The 50 years is excluding the gap period of non-possession of lease for the period for 7 years and 273 days from 8-03-1988 to 06-12-1995)

17	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Manvendra Mor, S/o Vishnu Mor, DFN office, Shreeram Nagar Post, Garividi Mandal, Vizianagaram District, Andhra Pradesh-535101. . Ph:- 9676828686. E-mail:-rbssdfndasvzm@gmail.com
18	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri K.V.Maheswara Rao, DFN office, Shreeram Nagar Post, Garividi Mandal, Vizianagaram District, Andhra Pradesh-535101. Date of appointment:-01-01-2014.
19	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines, qualification	Mr.S.Appala Naidu, DFN office, Shreeram Nagar Post, Garividi Mandal, Vizianagaram District, Andhra Pradesh-535101. Ph:-9550676601 E-mail:- rbssdfndasvzm@gmail.com Date of Appointment:-05-04-2023.
20	Name of the Mining Engineer & Geologist, Qualification and date of appointment in mine,	Mining Engineer:- Mr. Appala Naidu Qualification:-B.Tech Mining Date of Appointment:-05-04-2023. Geologist:- B.Ramana Murthy, Qualification: Msc, Geology Date of Appointment:-21.11.2022
21	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Modified Mining plan:- AP/VZNR/MP-Mn-16/2/Hyd. Dated 14-03.2022 for the period 2021-22 to 2025-26.
22	Name of the Mineral	Manganese
23	Method of Mining(Open cast, Underground)	Open cast
24	Category (Fully Mechanized, Others or Manual)	Category – A (Mechanized without drilling and blasting)
25	Captive/Non Captive	Non-Captive

PART-II**Exploration :**

Sl. No.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	None in the year 2023-24	None in the year 2023-24.	Entire Mineralized area is already explored under G-1 level.
1b	Exploration over lease area for geological axis 1 or 2	None in the year 2023-24	None in the year 2023-24.	Total lease area is 13.868Ha; out of which only 7.752Ha is mineralized and entire Mineralized area is explored under G-1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	None in the year 2023-24	None in the year 2023-24.	Earlier, lessee has drilled total 35 bore holes (30 core and 05 Non-core) and expenditure incurred on exploration was Rs 43, 11,250. Exploration was carried out by Geotech-exploration, under the supervision of Geologist of Avagudem mine.

1d	Balance area to be explored to bring Geological axis in 1 or 2	None in the year 2023-24	None in the year 2023-24.	Total lease area is 13.868Ha, out of which only 7.752Ha is mineralized and entire Mineralized area is explored under G-1 level.
1e	Balance reserves as on 01/04/2017	As per the approved document dated 14-03-2022, Details of reserves/resources are as follows. (31-12-2021) (In tonnes) Proved M Reserves (111) 716851, Feasibility M Resources (211) -69766. Total:- 786617.	Reserves/resources as on 01-04- 2024 are as follows (In tonnes) Proved M Reserves (111) 675574 , Feasibility M Resources (211) - 69766. Total:- 745340.	Reserves/resources were updated by depleting production carried out from 01.01.2022 to 31.03.2024. In the Approved document unit for reserves is not given correctly and remaining resources are not shown in the final table. Advised lessee to correct the same.
1f	General remarks of inspecting officers on geology, exploration etc.		The lease area is a part of the archean terrain consisting of Biotite Gneisses, Garnet Sillimanite Gneiss, Feldspathic quartzites, Calcarious granulites, Quartz veins etc. The host	Total lease area is 13.868Ha, out of which only 7.752Ha is mineralized and entire Mineralized area is explored under G-1 level, by drilling 35 exploratory

			rock of the formation is Khondalite suite. The Manganese ore minerals are represented by Pyrolusite, Psilomelane and wad. The general strike of the formation is WNW to ESE and dip 85 to 80 degree towards south.	boreholes to a total meterage of 1100. and remaining 6.116Ha is non-mineralized zone.
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Development :

Sl.No.	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	In the year 2023-24, proposal was given to work between the co-ordinates N-2030949 to N-2031054 and E - 768153 to E-768280 (section F-F' and G-G').	Actual working is carried out between the co-ordinates N-2030904 to N-2031074 and E-768083 to E-768433 (Section E-E' to I-I').	Violation is pointed out for the same under Rule 11(1) of MCDR 2017.
2b	Separate benches in topsoil, overburden and minerals (Rule-15)	Yes proposed separate benches in OB and ore.	separate benches are existing in OB and Ore.	Total seven benches are existing within the lease area. Five are in OB and two in ore.
2c	Stripping ratio of ore to OB ratio	1:9.18 in the year 2023-24	1:8.63 in the year 2023-24.	
2d	Quantity of topsoil generation in m ³	None in the year 2023-24	None in the year 2023-24	

2e	Quantity of overburden generation in m3	1,25,050 in the year 2023-24	127427 in the year 2023-24.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc.		The working has been not carried out as per the proposal and violation is pointed out for the same under Rule 11(1) of MCDR 2017.	

Exploitation :

Sl.N o.	Item	Proposals	Actual Work	Remarks
3a	Number of pit proposed for production	One in the year 2023-24.	One in the year 2023-24.	Dimension of the pit is 630m(L) x 125m(w) x 55m(h)
3b	Quantity of ROM mineral production proposed	45540 tonnes in the year 2023-24.	35446 tonnes in the year 2023-24.	
3c	Recovery of saleable / usable mineral from ROM production	70%	75%	Total ROM produced is 35446 T out of which 35334 tonnes is processed and total quantity shown under grade wise production is 26580 tonnes.
3d	Quantity of mineral reject generation	None in the year 2023-24	None in the year 2023-24.	Recovery is shown as 75% and remaining 25% is intercalated waste and not the mineral reject.

3e	Grade of mineral rejects generation and threshold value declared.	Not applicable.	Not applicable.	
3f	Quantity of subgrade mineral generation.	None in the year 2023-24	None in the year 2023-24.	
3g	Grade of subgrade mineral generation.	Not applicable.	Not applicable.	
3h	Manual / Mechanized method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for subgrade mineral and rejects	None.	None.	
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting was not proposed.	No drilling and blasting is carried out in the present plan period.	The formation is soft and easily removable for excavators. So no drilling and blasting is proposed and carried out.
3k	Provision of mining machineries	Yes proposed.	Lessee is using combination of Excavators and	

	in mineral benches		tippers for production and development.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height was proposed 3.00 mtr is OB & 4.00 mtr in ore.	Benches parameters are not maintained as per the proposal. In some places maintained 3 to 4 mtrs and in some places more than 6.00 mtrs due to collapse.	Violation is pointed out for the same under Rule 11(1) of MCDR 2017.
3m	Total area covered under excavation / pits	Area under Mining:- 7.751Ha	Area under mining- 7.751Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:9.18 in the year 2023-24	1:8.63 in the year 2023-24.	
3o	Total area put in use under different heads at the end of year	Area under mining- 7.751Ha, Waste dump:- 3.199Ha, Mineral storage:- 0.1Ha, Infrastructure:- 0.5Ha.	7.751Ha, waste dump-2.519Ha, Infrastructure-0.5Ha.	
3p	Production of ROM mineral during the last five year period as applicable	2023-24 - 45540T 2022-23 - 40788T 2021-22 - 17292T 2020-21-NIL 2019-20 - 66833T	2023-24 - 35446T 2022-23 - 5831T. 2021-22 - NIL, 2020-21 - NIL 2019-20 - 49930T	No approved document for the year 2020-21.

3q	General remarks of inspecting officers on method of mining etc.		The method adopted is mechanized method without drilling and blasting. Since the strata is loose lessee has not proposed and carried out any drilling and blasting and benches were advanced by excavators only. The working has been not carried within the proposed co-ordinates and bench parameters are also not maintained as per the proposal and violation is pointed out for the same under Rule 11(1) of MCDR-2017.	
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Solid Waste Management - Dumping :

Sl.N o.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32, 33)	Yes proposed separate dumps for OB.	Dumping of OB was made separately.	
4b	Location of topsoil, OB and mineral reject dumps	In the year 2023-24, There was a proposal to dump waste in the South western side of the lease area.	Actual dumping was made in the Northern part and Western part of the lease area, where there was no such proposal in the approved document,	Violation is pointed out for the same under Rule 11(1) of MCDR 2017.

			further, it appears in the northern side of the lease area dumping was extended beyond the 7.5 mtr safety zone and lease boundary.	
4c	Number of dumps within lease area and outside of lease area	One in the year 2023-24 (Dumping was proposed on existing old dump only).	04 waste dumps were exists within the lease area.	One dump which is existing Northern side is extended beyond lease boundary and violation is pointed out for the same under Rule 11(1) of MCDR 2017.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL	
4e	Number of active and alive dumps.	01 in the year 2023-24.	Four active dumps are observed.	
4f	Number of dead dumps.	None.	None.	
4g	Number of dumps established.	None.	None.	
4h	Whether retaining wall or garland drains all along dumps are there.	None in the year 2023-24	None in the year 2023-24	Earlier, retaining wall is made in the Eastern side of the lease area.
4i	Length of retaining	None in the year	None in the year 2023-	One retaining wall

	wall or garland drain all along dumps.	2023-24	24	of 554 mtr is constructed in the Eastern side of the lease area.
4j	Number of settling ponds	None	One settling pond is made	
4k	Specific comments of inspecting officers on waste dump management .		The dumping was not made as per the proposal and in the Northern side it appears dumping was made beyond the lease boundary also and violation is pointed out for the same under Rule 11(1) of MCDR 2017.	

Solid Waste Management - Backfilling :

Sl.N o.	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling	Not proposed.	Nil	No backfilling is proposed in the present plan period. However, waste dumping is made in the existing pit (western part of the lease) which is appears like back filling. Violation is pointed out for the same under Rule 11(1) of MCDR

				2017.
5b	Area under backfilling of mined out area	Not proposed.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not proposed.	Nil	
5d	Total area fully reclaimed and rehabilitated	Not proposed.	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Present working is not reached up to the proved depth and no proposals were made for reclamation and rehabilitation in the present plan period. However, waste dumping is made in the existing pit (western part of the lease) which is appears like back filling. Violation is pointed out for the same under Rule 11(1) of MCDR 2017.	
Progressive Mine Closure Plan :				

Sl.No.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 26(2)	Before 1st July of every year.	Submitted yearly report on PMCP within the prescribed time limit.	PMCP report submitted on 29.06.2023 along with the Annual returns submitted for the year 2022-23.
6b	Area available for rehabilitation (ha)	None in the year 2023-24	None in the year 2023-24	
6c	Afforestation done (ha)	0.15Ha in the year 2023-24.	0.1Ha in the year 2023-24	
6d	No. of saplings planted during the year	100 saplings in the year 2023-24.	100 saplings in the year 2023-24.	
6e	Cumulative no. of plants	500 saplings in the present block period up i.e. from 2021-22 to 06.12.2025.	300 saplings in the present block period up to 2023-24.	Total plantation made so far is 5100 saplings covering an area of 1.743Ha.
6f	Any other method of rehabilitation	None in the year 2023-24	None in the year 2023-24.	
6g	Cost incurred on watch and care during the year	None.	Rs 50000	for watch and care
6h	Compliance on reclamation	Nil	Nil	

	and rehabilitatio n by backfilling (i) Voids available for backfilling (L x B x D)			
6i	Compliance on reclamation and rehabilitatio n by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	
6j	Compliance on reclamation and rehabilitatio n by backfilling (iii) Afforestatio n on backfilled area	Nil	Nil	
6k	Compliance on reclamation and rehabilitatio n by backfilling (iv)Rehabilit ation by making water reservoir	Nil	Nil	

6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Nil	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Nil	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Nil	Nil	
6o	Compliance of rehabilitation of waste land within lease (ii) Method of rehabilitation	Nil	Nil	
6p	Compliance of environmental monitoring (core zone and buffer	Yes, Air, Water and Noise monitoring was proposed in Core and Buffer zone.	Environmental monitoring in the core and buffer zone is carried out as per the proposal and results	Environmental monitoring is carried out by Enviro Labs & Consultants.

	zone)		are within permissible limits.	Visakapatanam.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Only plantation was proposed in the present plan period .lessee has made 100 plantations in the year 2023-24 Further, lessee has constructed 554 m retaining wall and made garland drain of 487 mtrs in the present block period along the toe of waste dump. Doing environmental monitoring in core and buffer zone and results are within permissible limits.	

Mineral Conservation:-

Sl.N o.	Item	Proposals	Actual Work	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Proposed dispatch of Grade wise ore from the mine head.	Lessee is dispatching Grade wise ore as proposed.	Lessee is doing only manual sorting at mine site.
7b	Method of grade wise mineral sorting i.e. manual or mechanical	Manual	Manual	Lessee is doing only manual screening at the mine head.

7c	Different grade of mineral sorted out at mines	Below 25% Mn ore and 25 to below 35% Mn Ore	Below 25% Mn ore and 25 to below 35% Mn Ore	
7d	Any beneficiation process at mines	None.	None.	
7e	General remarks of inspecting officers on mineral conservation and beneficiation issues.		Lessee is doing only manual sorting of ROM by screening. Utilizing low grade ore by blending with the High grade as per the requirement of the buyer. Lessee is producing below 25% Mn ore and 25 to below 35%Mn ore.	

Environment:-

Sl.No	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	None in the year 2023-24	None in the year 2023-24	No topsoil was removed in the present block period.
8b	Concurrent use or storage of topsoil	None in the year 2023-24	None in the year 2023-24	The topsoil removed earlier is utilized for plantation within the lease area.
8c	Separate dumps for overburden, waste	Yes proposed.	OB dumping is made separately.	

	rock, rejects and fines (Rule 33)			
8d	Use of overburden , waste rock, rejects and fines dumps for restoring the land to its original use	None in the year 2023-24	None in the year 2023-24	
8e	Phased restoration, reclamation and rehabilitation of land affected by mining operations (pits, dumps etc.)	None in the year 2023-24	None in the year 2023-24	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Baseline information was furnished in the mining plan. Additional plantation proposals are being given in the Mining Plan documents.	Additionally lessee has planted about 5100 sapling so far within the lease area.	
8g	Survival rate	60%	50-55%	

8h	Water sprinkling on roads to control airborne dust	yes proposed.	Regularly spraying water on the working benches, Haul road etc.	Using water tanker of 2000 ltr for dust suppression.
8i	General remarks of inspecting officers on aesthetic beauty in and around mine areas.		Most of the area is broken up and pits and dumps are not made as per the proposal. Irregular dumps and pits were observed and Violation is pointed out for the same under Rule 11(1) of MCDR 2017.	

Compliance of Rule 45 :

Sl.N o.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of monthly and annual returns	A monthly return shall be submitted before the tenth day of every month in respect of the preceding month and an annual return shall be submitted before the 1st day of July each year for the preceding financial year.	Submitting Monthly and Annual returns within the time limit.	Submitted Annual returns for the year 2022-23 on 29-06-2023.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist	As per the Annual returns submitted for the year 2022-23, details are as follows:- Mining	The details furnished in the AR submitted for the year 2022-23 is found correct. However, it is	Lessee has sent notice of appointments to this office.

	and Manager	Engineer and Mines Manager :- Mr.Divakar Reddy, Geologist:- B.Ramana Murthy.	observed that Mr. S.Appala Naidu was appointed as the Mining engineer and Mines Manager in place of Mr.Divakar reddy.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining:- 7.751Ha, waste dump-2.519Ha, Infrastructure-0.5Ha.	The details furnished in the AR submitted for the year 2022-23 is found correct.	
9d	Scrutiny of Annual return on afforestation	200 saplings with survival rate of 55%.	The details furnished in the AR submitted for the year 2022-23 is found correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	None in the year 2022-23.	None in the year 2022- 23.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM:- Opening and closing stock;0, Production:-5831 tonnes, Grade wise : Below 25% Mn ore:- Opening stock and dispatch;- 0, production and	The details furnished in the AR submitted for the year 2022-23 is found correct.	

		<p>closing stock:-3001 tonnes. 25 to below 355 Mn ore:- Opening stoc;0, Production:2830 tonnes, Dispatch:- 2700 tonnes and closing stock:-130 tonnes.</p>		
9g	Scrutiny of Annual return on Sale value, Ex Mine price and production cost	<p>Sale valu:- is shown Rs 7523 fo 25 to below 35%Mn ora. Ex-mine price was shown Rs-1816/ton for below 25% Mn ore and Rs- 5272.83/ton for 25 to below 35% Mn ore, and Cost of production was mentioned as Rs- 3082.47/tonne.</p>	<p>The details furnished in the AR submitted for the year 2022-23 were found correct.</p>	<p>However, for ex-mine price details of deduction made were not given in the Annual returns submitted for the year 2022-23 and advised lessee to correct the same.</p>
9h	Scrutiny of Annual return on fixed assets	Rs- 90801517	<p>The details furnished in the AR submitted for the year 2022-23 were found correct.</p>	
9k	Scrutiny of Annual return on mining machineries	<p>Shovel of 1.1cum capacity:- 01, Tippers of 4.00 CUM capacity-05,</p>	<p>The details furnished in the AR submitted for the year 2022-23 were found correct.</p>	

Date:-

(KALMATA.M.K)

Indian Bureau of Mines