

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/NLR/VR-14

Mine code : 62APR15013

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri. T. Meenatchi Sundaram, Managing Partner & Sri. P
Official with
Designation
- (iv) Date of Inspection : 19-JUN-23
- (v) Prev.inspection date : 20-JUN-18

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MURUGA**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : ANDHRA PRADESH
District : NELLORE
Village : RAJUPALEM
Taluka : GUDUR
Post office : RAJUPALEM
Pin Code : 524102
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 01-JAN-74
- (h) Weekly day of rest : SUN
2. Address for : PALICHERLA(V),RAJUPALEM(PO)
correspondance : GUDURU(M)
NELLORE DISTRICT
3. (a) Lease Number : APR0642
- (b) Lease area : 10.87
- (c) Period of lease : 50
- (d) Date of Expiry : 26-MAY-29
4. Mineral worked : VERMICULITE Main

5. Name and Address of the

Lessee : SRI RAMA MARUTHI VERMICULITE MINES
 T.MEENAKSHISUNDARAM,
 23,SATYAVANIMUTTU ST
 ERUKKAMCHERRY,CHENNAI
 CHENNAI CITY TAMIL NADU
 Phone:
 FAX :

Owner : SRI RAMAMARUTHI VERMICULITE MINES
 T.MEENAKSHISUNDARAM,MG PR
 23,SATYAVANIMUTTU ST
 ERUKKANCHERRY,CHENNAI-52
 CHENNAI CITY TAMIL NADU
 Phone:
 FAX :

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| 6. Date of approval of Mining | : | Renewal under rule 22 MCR1960 | 28-JAN-04 |
| Plan/Scheme of Mining | | MP modif under 17(3) MCR 2016 | 24-AUG-16 |
| | | MP modif under 17(3) MCR 2016 | 25-JUN-21 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|--|---|--|
| 1a | Backlog of previous year | No backlog proposal | Nil | |
| 1b | Exploration over lease area for geological axis 1 or 2 | 2021-22 - 09 Nos. core boreholes & 07 Nos. DTH boreholes | No exploration work carried out. Violation pointed out as per rule. | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | No proposal | Nil | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | No proposal | As per the last approved MMP on 25.06.2021 , G1- 3.148 Ha & unexplored area is 7.722 Ha | |
| 1e | Balance reserve as on 01/04/20 | ----- | Proved Mineral Reserves (111) as per MMP approved on 25.06.2021 - 74561.38 Tonnes | |
| 1f | General remarks of inspecting officers on geology, exploration etc | | | No exploration carried out as per proposal. Violation pointed out as per rule. |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--|---|---------|
| 2a | Location of development w.r.t.lease area | 2021-22: E368890- E369005 & N1559050- N1559140 & E368870- E369010 & N1559045- N1559150 | Working pit was developed outside the mining lease area between the co-ordinates E369002.14-N1559113.37, E369018.05-N1559089.02& E369079.19-N1559145.46, E369079.33-N1559127.06. Violation pointed out as per Rule. | |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | Separate benches to be maintained in OB and mineral | Seperated benches developed in OB and mineral | |
| 2c | Stripping ratio or ore to OB ratio | 2021-22 - 1:1.19 2022-23 - 1:0.27 | OB generation record not maintained. Violation pointed out for not maintaining the records. | |

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| 2d | Quantity of topsoil generation in m3 | No proposal | Nil | |
| 2e | Quantity of overburden generation in m3 | 2021-22 - 2919.5 cu.m 2022-23 - 13380 cu.m | OB generation record not maintained. Violation pointed out for not maintaining the records. | |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | | | No records maintained for generation and stacking of overburden and waste. Violation pointed out as per Rule. |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|--|--|
| 3a | Number of pit proposed for production | One major pit proposed in the central part of the lease area | Mining pit was developed outside the mining lease area. Violation pointed out for deviation. | |
| 3b | Quantity of ROM mineral production proposed | 2021-22 - 10150 Tonnes 2022-23 - 10150 Tonnes | 2021-22 - 1970Tonnes 2022-23 - 1757 Tonnes | Violation pointed for developing mining pit outside the mining lease area. |
| 3c | Recovery of sailable/usable mineral from ROM production | 49% | ROM excavation register not maintained and also recovery percentage not recorded. Violation pointed out as per Rule. | |
| 3d | Quantity of mineral reject generation | No proposal | Nil | |
| 3e | Grade of mineral rejects generation and threshold value declared. | No applicable | Nil | |
| 3f | Quantity of sub grade mineral generation. | No proposal | Nil | |
| 3g | Grade of sub grade mineral generation | Not applicable | Nil | |

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| 3h | Manual / Mechanised method adopted for segregating from ROM | Manual method | Manual method adopted for segregating ROM |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No proposal | Nil |
| 3j | Provision of drilling and blasting in mineral benches | No proposal | Nil |
| 3k | Provision of mining machineries in mineral benches | No proposal | Nil |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | It was proposed to maintain bench height and width of 3meters | Working pit developed outsided the lease. Violation pointed out as per Rule. |
| 3m | Total area covered under excavation/pits | 2.6907 Ha till 2024 | Lease area utilisation submitted in the annual return and digital aerial images were not matching with the field conditions. Violation pointed out as per Rule. |
| 3n | Ore to OB ratio for the pit/mine during the year. | 2021-22 - 1:1.19 2022-23 - 1:0.27 | OB generation record not maintained. Violation pointed out for not maintaining the records. |
| 3o | Total area put in use under different heads at the end of year | i) OC Working 2.6907 Ha ii) Waste Dump Site- 0.7733 Ha iii) Infrastructure & Road - 0.036 Ha iv) Roads - 0.5618 Ha v) Others (Green belt) - 0.7789 Ha Total Area - 4.841 Ha | Lease area utilisation submitted in the annual return and digital aerial images were not matching with the field conditions. Violation pointed out as per Rule. |

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| 3p | Production of ROM mineral during the last five year period as applicable | 2017-18 - 3153.75 Te 2018-19 - 3698 Te 2019-20 - 4567.5 Te 2020-21 - Lapsed 2022-23 - 4973.5 Te | 2017-18 - 3710 Te 2018-19 - 1901 Te 2019-20 - Nil Te 2020-21 - 750 Te 2021-22 - 1970 Te 2022-23 - 1757Te |
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| 3q | General remarks of inspecting officers on method of mining etc. | Working pit developed outsided the mining lease area. Violation pointed out as per Rule. |
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Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|---|---------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No proposal | Nil | |
| 4b | Location of topsoil, OB and mineral reject dumps | 1 sub grade & 8 waste dump in the north western side of the lease | Old Sub grade and waste dumps were avaiable in the lease area | |
| 4c | Number of dumps within lease area and outside of lease area | 1 sub grade & 8 waste dump in the north western side of the lease | Old Sub grade and waste dumps were avaiable in the lease area | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Outside UPL | Outside UPL | |
| 4e | Number of active and alive dumps. | No proposal | Nil | |
| 4f | Number of dead dumps. | 1 sub grade & 8 waste dump in the north western side of the lease | Old Sub grade and waste dumps were avaiable in the lease area | |
| 4g | Number of dumps established. | No proposal | Nil | |

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| 4h | Whether Retaining wall or garland drain all along dumps are there. | Retaining wall & garland drain to be maintained around the dump | Not developed. Violation pointed out as per rule. | |
| 4i | Length of Retaining wall or garland drain all along dumps | Retaining wall: Dump-4 : 80mx0.5mx1m Dump-5 : 102mx0.5mx1m Dump-6 : 106mx0.5mx1m Dump-7 : 55mx0.5mx1m Dump-8 : 50mx0.5mx1m Dump-9 : 60mx0.5mx1m Garland drain: 595mx0.5mx1m | Not carried out as per proposal. Violation pointed out as per rule. | |
| 4j | Number of settling ponds | No proposal | Nil | |
| 4k | Specific comments of inspecting officer on waste dump management | | | Dumps were not developed properly. Waste material was lying staggeredly in the lease area. |

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. | 2021-22 - 5583.5 cu.m@ 0.0692 Ha 2022-23 - 13380 Ha @ 0.0486 | Not carried out as per proposal. Violation pointed out as per Rule. | |
| 5b | Area under backfilling of mined out area | Proposed backfilling | Not carried out backfilling as per proposal. Violation pointed out as per Rule. | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | No proposal | Nil | |

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| 5d | Total area fully reclaimed and rehabilitated | No proposal | Nil | |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | | | Backfilling work not carried out as per proposal. Violation pointed out as per Rule. |

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 yearly report before 1st July | Not submitted. Violation pointed out as per Rule. | |
| 6b | Area available for rehabilitation (ha) . | No proposal | Nil | |
| 6c | afforestation done (ha). | 2021-22 - 0.5244 Ha 2022-23 - 0.1244 Ha | Afforestation done as per proposal. | |
| 6d | No. of saplings planted during the year | 2021-22 - 108 Nos. 2022-23 - 108 Nos. | Afforestation not reported correctly in the annual returns. Violation pointed out as per Rule. | |
| 6e | Cumulative no .of plants | No proposal | No records maintained for cumulative no. of plants planted. | |
| 6f | Any other method of rehabilitation | No proposal | Nil | |
| 6g | Cost incurred on watch and care during the year | No proposal | Nil | |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No proposal | Nil | |

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| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No proposal | Nil |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area | No proposal | Nil |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No proposal | Nil |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means. | No proposal | Nil |
| 6m | Compliance of rehabilitation of waste land within lease (i) afforestation | No proposal | Nil |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | No proposal | Nil |
| 6o | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation | No proposal | Nil |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Environmental monitoring work to be carried out | Environmental monitoring work not carried out. Violation pointed out as per Rule. |

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| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | Environmental monitoring work not carried out. Violation pointed out as per Rule. |
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Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---------------------------------------|---|--|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Sorting of waste and mineral proposed | Mineral and waste sorting done within the lease area. | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Manual | Manual | |
| 7c | Different grade of mineral sorted out at mines. | Grade wise sorting not done in mines | Grade wise sorting not done in mines | |
| 7d | Any beneficiation process at mines | No proposal | Nil | |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | | | Mineral and waste sorted out in the mining lease area. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-------------|-------------|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | No proposal | Nil | |
| 8b | Concurrent use or storage of topsoil | No proposal | Nil | |

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| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | No proposal during the MMP period | Nil | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | No proposal | Nil | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal | Nil | |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 2021-22 - 0.5244 Ha 2022-23 - 0.1244 Ha & 2021-22 - 108 Nos. 2022-23 - 108 Nos. | Plantation done as per proposal. | |
| 8g | Survival rate | No proposal | Nil | |
| 8h | Water sprinkling on roads to control airborne dust | No proposal | Water sprinkling done. | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | | Plantation done as per the proposal. Vegetation found in and around the mining lease area. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
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| 9a | Status of submission of Monthly and Annual returns | Monthly return Submitted before 10th of every month and Annual return to be submitted before 1st July. | AR submitted in time. |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Mining engineer: Nil Geologist: Nil Manager: Sri. P. Srinivasulu | Geologist and Mining Engineer not appointed as per Rule. |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | i) OC Working 0.19 Ha ii) Waste Dump Site -0.18 Ha iii) Reclaimed/Rehabilitated-0.13 Ha iv) Infrastructure & Road -1.1 Ha v) Others (PMCP)-0.53 Ha vi) Area exploited & abandoned by OC mining-0.45 Ha | The lease area utilization submitted in the annual returns are not matching with the field conditions. Violation pointed out as per Rule. |
| 9d | Scrutiny of Annual return on afforestation | 30 Nos. | Plantation details not submitted correctly. Violation pointed out as per Rule. |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Nil | Nil |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | OS - 650 Te CS - 1970 Te | Total ROM production details not submitted correctly and ROM register not maintained for verification. |

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| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Ex-mine price variation found in the annual returns. | i. In the monthly returns during the year 2021-22 you have reported Ex-mine price as Rs.625/- per tonne, but in the annual return 2021-22, you have reported Ex-mine price as Rs.875000/- per tonne. ii. Deduction claimed for cost of transportation, loading and unloading charges not applicable for captive dispatches. | Violation pointed as per Rule. |
| 9h | Scrutiny of Annual return on fixed assets | Value of fixed assets reported as Rs.300000/- | Value of fixed assets couldn't be verified. | |
| 9k | Scrutiny of Annual return on mining machineries | Machinery details not submitted. | Violation pointed out as per Rule. | |

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 |

Date :**(MADHU SUDHAN YADAV M)**

Indian Bureau of Mines