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

## MCDR INSPECTION REPORT

## Chennai regional office

**Mine file No :** TN/TCR/LST-87/MDS **Mine code : 38TMN14059**

(i) Name of the Inspecting Officer and ID No. : **N(001 ) N.SUBRAHAMAANYAM**

(ii) Designation : Assistant Mining Engineer

(iii) Accompaning mine Official with Designation : Mr. Karuppusamy rep of Owner.

(iv) Date of Inspection : 24/11/2017

(v) Prev.inspection date : 21/10/2016

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SHANAMANGALAM (3.11.5H)**

**(b) Registration NO.** :

(c) Category : B Manual

(d) Type of Working : Opencast

(e) Postal address

State : TAMIL NADU
District : TIRUCHIRAPALLI
Village : SHANAMANGALAM
Taluka : MANACHANALLUR
Post office : SIRUGANUR
Pin Code :
FAX No. :
E-mail :
Phone :

(f) Police Station :

(g) First opening date : 09/04/2004

(h) Weekly day of rest : SUN

2. Address for correspondance : NO.69, GANAPATHY NAGAR
T.V.KOIL
TRICHY-620 005.

3. (a) Lease Number : TMN1280
(b) Lease area : 3.11
(c) Period of lease : 20
(d) Date of Expiry : 09/08/2021

4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : SMT.S.SATHAMMAI
69.GANAPATHY NAGAR
THIRUVANAI KOIL
THIRUCHIRAPALLI
TIRUCHIRAPALLI TAMIL NADU
Phone:0431-2432882 CELL- 9842410080
FAX :

Owner : SMT.SATHAMMAI
69,GANAPATHY NAGAR T.V.KOIL
TRICHY-620005
TIRUCHIRAPALLI TAMIL NADU
Phone:
FAX :

Geologist

Name : S.SUBRAMANIAM,Full Time

Qualification : MSC(GEOLOGY)

Appointment/ Termination date :

6. Date of approval of Mining Plan/Scheme of Mining :

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|---|---|
| Mining Scheme rule 12 MCDR1988 | 23/05/2007 |
| Mining Scheme rule 12 MCDR1988 | 18/12/2012 |
| MP review under 17(1) MCR 2016 | 30/12/2016 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|---|---|---|---|---|
| 1a | Backlog of previous year | Nil | Nil | Nil |
| 1b | Exploration over lease area for geological axis 1 or 2 | 17 bore holes up to 9m depth depth from surface. | Proposals were carried out. | Mineral proved up to 10m depth from surface. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | RQP & L:essee | Rs. 85,000/- | Covered entire area. |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Covered entire area. | Nil | Nil |
| 1e | Balance reserve as on 01/04/20 | 20700 tones (111)& 105000 tones (221) | 20700 tones (111)& 105000 tones (221) | No comments. |
| 1f | General remarks of inspecting officers on geology, exploration etc | Mine is working. | Due to environmental clearance / market problems. | Due to environmental clearance / market problems. |

## Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|---|---|---|---|---|
| 2a | Location of development w.r.t.lease area | Western side OB-23x59x1m height: Ore-19x15x1.5m | Mine is working. | Due to environmental clearance / market problems. |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | Separate benches in topsoil, OB made. | Same as proposed. | No comments |
| 2c | Stripping ratio or ore to OB ratio | Ore to waste is 1:0.83 | Same as proposed. | No comments |
| 2d | Quantity of topsoil generation in m3 | No topsoil & Over Burden is generated in plan period. | Same as proposed. | Since the mining is carried out on existing pit. |
| 2e | Quantity of overburden generation in m3 | Nil. | Mine is not working. | Due to environmental clearance / market problems. |

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|---|---|---|---|---|
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | Nil. | Due to environmental clearance / market problems. | No comments |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|---|---|---|---|---|
| 3a | Number of pit proposed for production | Western side OB-23x59x1m height: Ore-19x15x1.5m | Mine is not working. | No comments |
| 3b | Quantity of ROM mineral production proposed | 6500 | Mine is not working due to EC | No comments |
| 3c | Recovery of sailable/usable mineral from ROM production | 60% Limestone & 40% mineral rejects. | Same as proposed. | No comments. |
| 3d | Quantity of mineral reject generation | No rejects | Mineral rejects is 40% of ROM which includes rock fragments, impurities etc | No rejects |
| 3e | Grade of mineral rejects generation and threshold value declared. | No rejects | Mineral rejects is 40% of ROM which includes rock fragments, impurities etc | Nil. |
| 3f | Quantity of sub grade mineral generation. | No sub-grade mineral. | Below 40% of CaCO3 with contaminations of calc gneiss waste are considered as mineral rejects in these particular formations. | Nil. |
| 3g | Grade of sub grade mineral generation | NA | Nil | Nil |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Manual | Same as proposed. | Nil |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | NA | Nil | Nil |

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| 3j | Provision of drilling and blasting in mineral benches | Drilling & blasting is done by contract basis. | Same as proposed. | Nil |
| 3k | Provision of mining machineries in mineral benches | 10 t tipper for transportation to needy industries. | Same as proposed. | Nil. |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Height of bench is 1.5m & width is 2m. | Same as proposed. | Nil. |
| 3m | Total area covered under excavation/pits | 0.38 ha | Same as proposed. | Nil. |
| 3n | Ore to OB ratio for the pit/mine during the year. | Ore to waste is 1:0.40 | Same as proposed. | Nil. |
| 3o | Total area put in use under different heads at the end of year | 0.84 ha | Same as proposed. | Nil. |
| 3p | Production of ROM mineral during the last five year period as applicable | a.2012-13: 3050 b.2013-14: 2260 c.2014-15: 3645 d.2015-16: devp e.2016-17: 3500 | a.2012-13: 3000 b.2013-14: 2000 c.2014-15: 100 d.2015-16: devp e.2016-17: 100 | No comments. |
| 3q | General remarks of inspecting officers on method of mining etc. | Proposal was adequate. | After receiving EC, mine will be opening. Mining carried out as per proposal. | Nil. |

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 topsoil, OB & mineral reject. | Same as proposed. | Nil. |

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| 4b | Location of topsoil, OB and mineral reject dumps | North-Eastern side of mining lease area. | Same as proposed. | Nil. |
| 4c | Number of dumps within lease area and outside of lease area | All dumps are with in lease area. | Same as proposed. | Nil. |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | All dumps are with in lease area. | Same as proposed. | Nil. |
| 4e | Number of active and alive dumps. | One dump is alive & active. | Same as proposed. | Nil. |
| 4f | Number of dead dumps. | Nil | Nil | Nil |
| 4g | Number of dumps established. | Nil | Nil | Nil |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | No proposal for Retaining wall or garland drain all along dumps. | Topsoil cum overburden is dumped all along safety zone. | Nil |
| 4i | Length of Retaining wall or garland drain all along dumps | No proposal. | Nil | Nil |
| 4j | Number of settling ponds | No proposal. | Nil | Nil |
| 4k | Specific comments of inspecting officer on waste dump management | Nil | Nil | No comments |

## 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. | Mine is active | Not applicable at present stage. | Nil. |
| 5b | Area under backfilling of mined out area | Nil | Nil | Nil |

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| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Use of topsoil is for plantation. | Same as proposed. | Nil |
| 5d | Total area fully reclaimed and rehabilitated | Nil | Nil | Nil |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | Nil | Nil | No comments. |

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). | Annual report on PMCP is not submitted. | Nil. | No comments. |
| 6b | Area available for rehabilitation (ha) . | No | Nil | No comments. |
| 6c | afforestation done (ha). | 0.02 ha | 0.02 ha | Nil. |
| 6d | No. of saplings planted during the year | 15 nos | 15 nos | Nil. |
| 6e | Cumulative no .of plants | 120 | 70 | Nil. |
| 6f | Any other method of rehabilitation | Nil | Nil | Nil |
| 6g | Cost incurred on watch and care during the year | Nil | Nil | Nil |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D | Nil | Nil | Nil |

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|---|---|---|---|---|
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | Nil | Nil | Nil |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area | Nil | Nil | Nil |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Nil | Nil | Nil |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | Nil | Nil | Nil |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | Nil | Nil | Nil |
| 6n | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | Nil | Nil | Nil |
| 6o | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | Nil | Nil | Nil |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Nil | Nil | Nil |

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| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | Nil | Nil | No comments. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|---|---|---|---|---|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | ROM Mineral grade-wise sorting within lease area | Same as proposed. | No comments. |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Manual | Same as proposed. | No comments. |
| 7c | Different grade of mineral sorted out at mines. | Nil. | The grade of ore is almost uniform. | No comments. |
| 7d | Any beneficiation process at mines . | Nil | Nil | No comments. |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | Nil | Nil | No comments. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|---|---|---|---|---|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Topsoil cum OB is removed separately. | Same as proposed. | No comments. |
| 8b | Concurrent use or storage of topsoil | Plantation | Same as proposed. | No comments. |

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| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dumps for Topsoil, side burden & mineral rejects | Same as proposed. | No comments. |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Little quantity of overburden is to be used for plantation purpose. | Same as proposed. | No comments. |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal | Since the lease area is small, does not arise. | Nil. |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | Few neem tress planted | Same as proposed. | Nil. |
| 8g | Survival rate | 80% | 45% | Due to water problems only |
| 8h | Water sprinkling on roads to control airborne dust | No proposal | Since the lease area is small, does not arise. | No comments. |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | Nil | Nil | No comments. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|---|---|---|---|---|
| 9a | Status of submission of Monthly and Annual returns | 1. Monthly returns have been submitted.<br>2. Annual returns have been submitted. | Both returns were checked & found to be correct. | Nil. |

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| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Nil. | S.Subramanian is appointed as Mining Engineer cum Geologist | Nil. |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Nil | Nil | Nil |
| 9d | Scrutiny of Annual return on afforestation | Nil | Nil | Nil |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Nil | Nil | Nil |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Nil | Nil | Nil |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Nil | Nil | Nil |
| 9h | Scrutiny of Annual return on fixed assets | Nil | Nil | Nil |
| 9k | Scrutiny of Annual return on mining machineries | Nil | JCB for loading & 10 ton tipper fir transporting are being used. | No outstanding violations are observed in this mine. This mine is not working due to EC and during the inspection rule 28(1) of MCDR 2017 is observed and pointed out, violation letter was issued follow up action is being taken up. |

**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 28(1) | 11/12/2017 | | | | |

**Date :**

(**N.SUBRAHAMAANYAM**)

Indian Bureau of Mines