

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

MCDR INSPECTION REPORT

Chennai regional office

Mine file No : TN/TCR/LST-74..MDS

Mine code : 38TMN38006

- (i) Name of the Inspecting : **T003**) **S.THIRUNAVUKKARASU**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri.S.Duraimurugan (AGM) & Shri.M.R.Venkatesan (GM)
Official with
Designation
- (iv) Date of Inspection : 03/01/2020
- (v) Prev.inspection date : 26/06/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ADANAKURICHI&MANAKUDAYAN(**
- (b) **Registration NO.** : **IBM/638/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **TAMIL NADU**
- District : **ARIYALUR**
- Village :
- Taluka :
- Post office :
- Pin Code :
- FAX No. : **044-28478676**
- E-mail : **vssm@ramcocements.co.in**
- Phone : **044-28477504**
- (f) **Police Station** : **DALAVOI**
- (g) **First opening date** : **24/12/1999**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **ALATHIYUR WORKS,**
correspondance **CEMENT NAGAR POST,ARIYALUR DISTRICT**
3. (a) **Lease Number** : **TMN1029**
- (b) **Lease area** : **89.87**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **30/03/2025**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : MADRAS CEMENTS LIMITED
 Auras Corporate Center Vth
 Floor, 98 A Dr.Radha
 Krishnan salai, Mylapore
 CHENNAI CITY TAMIL NADU
 Phone:044-28478666
 FAX :044-28478676

Owner : P.R.RAMA SUBRAMANYA RAJA
 AURAS CORPORATE CENTRE
 VFLOOR,98A,RADAKRISHNAN R
 MYLAPORE,CHENNAI CHENNAI
 CITY TAMIL NADU
 Phone: 044-8555815
 FAX : 044-830248

Agent : S SHANMUGAM
 Madras Cements Ltd, TALUKA-
 Sendurai ARIYALUR TAMIL
 NADU
 Phone: 04329-248305248306
 FAX : 04329-248303

Mining Engineer

Name : SURESHBABU,Full Time
 Qualification : B TECH MINING
 Appointment/ : 01/01/2012
 Termination date

Mining Engineer

Name : S.DURAI MURUGAN,Full Time
 Qualification : B.E., MINING
 Appointment/ : 26/06/2018 25/06/2018
 Termination date

Geologist

Name : J.RAVI,Full Time
 Qualification : M.Sc Geology
 Appointment/ : 16/03/2007
 Termination date

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|-------------------------------|---|--------------------------------|------------|
| 6. Date of approval of Mining | : | Fresh under rule 22 MCR1960 | 06/10/1999 |
| Plan/Scheme of Mining | | Mining Scheme rule 12 MCDR1988 | 28/08/2009 |
| | | Modif.approved Mining Scheme | 08/10/2012 |
| | | Mining Scheme rule 12 MCDR1988 | 30/06/2014 |
| | | MP review under 17(1) MCR 2016 | 05/12/2018 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|------------|-------------------------------|--|
| 1a | Backlog of previous year | No Backlog | Mine fully explored G-1 Level | 20 borehole drilled with total meterage of 735.05 m. |
| 1b | Exploration over lease area for geological axis 1 or 2 | Nil | Mine fully explored G-1 Level | Nil |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Nil | NA | Mine fully explored G-1 Level |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Nil | Not Applied | Mine fully explored G-1 Level |
| 1e | Balance reserve as on 01/04/20 | - | 58,30,721 | Not applicable |
| 1f | General remarks of inspecting officers on geology, exploration etc | - | - | Satisfactory |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--|--|---|
| 2a | Location of development w.r.t.lease area | ML 0-11 -200 to 0 | ML 0-11 -200 to 0 | As per proposal |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | Topsoil - 1, Overburden - 1, Mineral - 5 | Topsoil - 1, Overburden - 1, Mineral - 5 | Formed as per rule |
| 2c | Stripping ratio or ore to OB ratio | 1 : 0.11 | 1 : 0.21 | As per Proposed production qty not achieved due to quality problem. |
| 2d | Quantity of topsoil generation in m3 | Nil | Nil | As per proposal |
| 2e | Quantity of overburden generation in m3 | Nil | Nil | As per proposal |

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| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | - | - | Satisfactory |
|----|---|---|---|--------------|

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|------------|-------------|-------------------------------------|
| 3a | Number of pit proposed for production | 3 | 3 | As per proposal |
| 3b | Quantity of ROM mineral production proposed | 4,45,968 | 2,29,824 | Total ROM is Used. |
| 3c | Recovery of sailable/usable mineral from ROM production | 4,45,968 | 2,29,824 | 100% Recovery |
| 3d | Quantity of mineral reject generation | Nil | NA | No Mined Reject Generation |
| 3e | Grade of mineral rejects generation and threshold value declared. | Nil | NA | NA |
| 3f | Quantity of sub grade mineral generation. | Nil | NA | No Subgrade Mineral Generation |
| 3g | Grade of sub grade mineral generation | Nil | NA | No Subgrade Mineral Generation |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanised | Mechanised | Nil |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Nil | NA | Beneficiation Study is Not Required |
| 3j | Provision of drilling and blasting in mineral benches | Nil | Nil | - |

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|----|--|---|---|---|
| 3k | Provision of mining machineries in mineral benches | - | Surface Miner-1, Dumper-1, Shovel-1, Dozer-1, Tipper-4, Water Tanker-1, Other HEMM-2 | Surface Miner operation is in practice for production. |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Height - 5m, Width - 6m | Height - 5m, Width - 6m | Benches suitable for the method of mining |
| 3m | Total area covered under excavation/pits | 56.970 | 56.970 | As per proposal |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1 : 0.11 | 1 : 0.21 | As per Proposed production qty not achieved due to quality problem. |
| 3o | Total area put in use under different heads at the end of year | Minedout land - 56.970 Ha Infrastructure - 1.00 Ha Road - 3.50 Ha Mineral Separation Plant - 5.006 Ha Other & Greenbelt - 23.399 Ha | Minedout land - 56.970 Ha Infrastructure - 1.00 Ha Road - 3.50 Ha Mineral Separation Plant - 5.006 Ha Other & Greenbelt - 23.399 Ha | As per proposal |
| 3p | Production of ROM mineral during the last five year period as applicable | 2015-16 11,64,000 2016-17 10,41,000 2017-18 9,65,000 2018-19 8,83,000 2019-20 Up to Dec-19 4,45,968 | 2015-16 8,37,352 2016-17 3,64,390 2017-18 3,97,243 2018-19 3,39,972 2019-20 Upto Dec-19 2,29,824 | As per Proposed production qty not achieved due to quality problem. |
| 3q | General remarks of inspecting officers on method of mining etc. | - | - | Satisfactory |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
|--------|------|-----------|-------------|---------|

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|----|--|--|--|----------------------------------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No Topsoil, OB & Mineral rejects are dumped separately | No Topsoil, OB & Mineral rejects are dumped separately | Nil |
| 4b | Location of topsoil, OB and mineral reject dumps | OB & Mineral Reject ML 0 - 1 Grid 0 to 200 | OB & Mineral Reject ML 0 - 1 Grid 0 to 200 | Back filled |
| 4c | Number of dumps within lease area and outside of lease area | OB - 1 (Old) | OB - 1 | Outside Lease Area |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Nil | NA | Nil |
| 4e | Number of active and alive dumps. | Nil | Nil | No alive dumps |
| 4f | Number of dead dumps. | 1 | 1 | Nil |
| 4g | Number of dumps established. | 1 | 1 | Old dumps are stabilized. |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Yes | Yes | As per proposal |
| 4i | Length of Retaining wall or garland drain all along dumps | - | 800 x 2 x 2 | Outside Lease |
| 4j | Number of settling ponds | 1 | 1 | Existing Settling Pond de-silted |
| 4k | Specific comments of inspecting officer on waste dump management | - | - | Satisfactory |

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. | All minerals are mined & taken before starting of Backfilling | All minerals are mined & taken before starting of Backfilling | Full extraction is adopted |

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|----|---|------------------------------|------------------------------|---|
| 5b | Area under backfilling of mined out area | ML 00- ML 02 RL - 37 - 47 | ML 00- ML 01 RL - 37 - 42 | As per proposal |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Yes | Yes | Top soil stock for future use of afforestation and reclamation. |
| 5d | Total area fully reclaimed and rehabilitated | Nil | NA | Nil |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | - | - | Satisfactory |

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). | Yes | Yes | Submitted to IBM in time |
| 6b | Area available for rehabilitation (ha) . | Backfilling proposed | Backfilling started | As per proposal |
| 6c | afforestation done (ha). | 0.68 | 1.06 | Plantation carried out |
| 6d | No. of saplings planted during the year | 1,100 | 1,700 | Plantation carried out as per proposal |
| 6e | Cumulative no .of plants | 49,187 | 50,887 | For entire mine area |
| 6f | Any other method of rehabilitation | Nil | Nil | No other method of Rehabilitation |
| 6g | Cost incurred on watch and care during the year | 36,89,025 | 38,16,525 | As per proposal |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | 0.08 | 0.03 | As per proposal |

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| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | - | - | - |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area | Nil | NA | Mine not excavated |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | After mining is completed will be making water reservoir. | After mining is completed will be making water reservoir. | After mining is completed will be making water reservoir. |
| 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 | Not applicable | Not applicable | Land does not belong to lessee |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | Not applicable | Not applicable | Not applicable |
| 6o | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation | Not applicable | Not applicable | Not applicable |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Yes | Yes | All the monitored values are within limit. Quarterly Reports submitted to IBM regularly. |

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| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | - | - | Satisfactory |
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Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|------------------------------------|---------------------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Nil | NA | Nil |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Nil | NA | No Subgrade Mineral |
| 7c | Different grade of mineral sorted out at mines. | Nil | NA | No Subgrade Mineral |
| 7d | Any beneficiation process at mines . | Yes .Wet Beneficiation Technology is proposed | Being carried out as per proposal. | As per proposal |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | - | - | Satisfactory |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|-----------|-------------|----------------------------------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Yes | Yes | As per the proposal |
| 8b | Concurrent use or storage of topsoil | Nil | NA | Top soil storage for future use. |

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|----|---|--------------------------|--------------------------|--------------------------------------|
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Only backfilling is done | Only backfilling is done | As per proposal |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Backfilling is proposed | As per the proposal | Simultaneous Backfilling is going on |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Nil | NA | Mine not excavated |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | 49,187 | 50,887 | Nil |
| 8g | Survival rate | - | 75% | Nil |
| 8h | Water sprinkling on roads to control airborne dust | Yes | Yes | Water Sprinkling is being done |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | - | - | Satisfactory |

Compliance of Rule 45:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--------------------------------|--------------------------------|-------------------|
| 9a | Status of submission of Monthly and Annual returns | Submitted for the year 2018-19 | Submitted for the year 2018-19 | Submitted in time |

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|----|---|------------------------------|------------------------------|-------------|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Appointed | Appointed as per rule | as per Rule |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | - | Given in Part - i. Sl no.12 | as per Rule |
| 9d | Scrutiny of Annual return on afforestation | Provided in Annual Return | Given in Part - V. Sl no.4.4 | as per Rule |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | No reject | Given in Part - V. Sl no.4.2 | as per Rule |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Mentioned | Given in Part - VI. Sl no.1 | as per Rule |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Provided in Annual Return | Given in Part - IIA. Sl no.1 | as per Rule |
| 9h | Scrutiny of Annual return on fixed assets | Provided in Annual Return | Given in Part - IIA. Sl no.1 | as per Rule |
| 9k | Scrutiny of Annual return on mining machineries | Given in completed statement | Given in Part - V Sec - 5 | as per Rule |

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

| Violation observed | | Show cause position | |
|--------------------|-------------------------|---------------------|-------------------------|
| Rule NO. | Issued on Compliance on | Rule NO. | Issued on Compliance on |
| | | | |

Date :

(S. THIRUNAVUKKARASU)

Indian Bureau of Mines