INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/PT/LST-13.MDS Mine code: 38TMN38001

Name of the Inspecting: 043) T.PHALTHURAIRAJHEN

Officer and ID No.

(ii) Designation : Junior Mining Geologist

(iii) Accompaning mine : Mr.Raja Ranjith Singh -General Manager. (mines)

Official with

Designation

(iv) Date of Inspection : 01/12/2022 (v) Prev.inspection date : 31/08/2021

PART-I : GENERAL INFORMATION

(a) Mine Name : PERIATHIRUKONAM

(b) Registration NO. : IBM/929/2011

(C) : A Fully Mechanised Category

(d) Type of Working : Opencast

Postal address (e)

> State : TAMIL NADU District ARIYALUR

Village : PERIATHIRUKONAM

Taluka ARIYALUR

Post office IDAYATHANKUDI

Pin Code

FAX No. : 04329-35111

E-mail s.makesh@dalmiacement.com : 04329-235459, 9865165326 Phone

(f) Police Station : KEELAPALUR First opening date : 01/04/2011 (g)

Weekly day of rest (h) : SUN

Address for : Dalmia Cement (B) Ltd.

correspondance DALMIAPURAM-621651

TRICHY

: TMN0745 3 (a) Lease Number (b) Lease area : 61.37

Period of lease : 50 (C)

: 29/03/2051 (d) Date of Expiry

Mineral worked : LIMESTONE Main 4.

5. Name and Address of the

Lessee : DALMIA CEMENT (BHARAT) LIMITED

TIRUCHIRAPALLI TAMIL

NADU Phone: FAX:

Owner : T. VENKATESAN

Dy. Managing Director Dalmia Cement (B) Ltd CHENNAI CITY TAMIL NADU Phone: 044-28279933, 9 FAX: 044-28276508

Agent : J. V. GUNGANE

Executive Director Dalmia Cement(B) Ltd Dalmiapuram TIRUCHIRAPALLI TAMIL NADU

Phone: 04329-235123, 9865139444

FAX : 04329-235111

Mining Engineer

Name : S.RADAKRISHNAKANTH, Full Time

Qualification : BE(MINING) Appointment/ : 04/06/2001

Termination date

Geologist

Name : S. Selvakumar, Full Time

Qualification : M.Sc. (Applied Geo)

Appointment/ : 01/12/2008

Termination date

Manager

Name : R.KAMARAJ

Qualification : BE Mining Engineering

Appointment/ : 04/01/2016

Termination date

MP review under 17(1) MCR 2016 02/12/2020

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 | Area-G1- 61.365 ha | Area-G1-61.365 ha | The Entire lease hold area falls under 111, 211 & 221 Classification. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | NA | NA | NA |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NA | NA | All area explored under Gi category. |
| 1e | Balance reserve as on 01/04/20 | prode mineral reserve(111)- 1735631. Tons | prode mineral reserve(111)-1735631. Tons | prode mineral reserve(111)- 1735631. Tons |
| 1f | General remarks of inspecting officers on geology, exploration etc | - | - | Satisfactory. |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|------------------------|--|--|
| 2a | | 7548, E-8136 | N-7428 TO 7548, E-8136 TO 8300 & N-6914 TO 7199 E- 7947 TO 8398. | NIL. |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | BENCH, OVERBURDEN-3 | Top soil -1bench, overburden -3 Benches, Lst- 4 benches. | Nil |
| 2c | Stripping ratio or ore to OB ratio | 1;0.2 | 1:0.07 | - |
| 2d | Quantity of topsoil generation in m3 | NIL | NIL | NIL |
| 2e | Quantity of overburden generation in m3 | 136,152 CU.M | 52912. CU.M | LESS handled due to development in ML-2. |

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

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|-------------|---|
| 3a | Number of pit proposed for production | 1 | 1 | - |
| 3b | Quantity of ROM mineral production proposed | 850713 MT. | 799000 MT | - |
| 3с | Recovery of sailable/usable mineral from ROM production | 100% | 100% | - |
| 3d | Quantity of mineral reject generation | 0 | 0 | - |
| 3e | Grade of mineral rejects generation and threshold value declared. | NIL | NIL | NOT PROPOSED. |
| 3f | Quantity of sub grade mineral generation. | O-MT | O-MT | NO Subgrade is generated . Sub grade benches are submerged. |
| 3g | Grade of sub grade mineral generation | SIO2-7.10- 14.20, AL2O3- 1.62-4.84. FE2O3-6.00- 12.35, CAO- 35-45.4. | NA. | No subgrade is generated . sub grade benches are submerged under water logged area. |
| 3h | Manual / Mechanised method adopted for segregating from ROM | mechanized. | mechanized. | As per proposed in SOM. |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | NIL | NIL | - |

| 3j | Provision of drilling and blasting in mineral benches | For drilling ICM260 drill machine is used for Blasting, magazine for Explosives storage. ANFO Mixng shed & Road van for Explosives transporting from magazine to blasting site are available in Mines | for drilling CM341 Drill compressor is used for Blasting, magazine for Explosives storage. ANFO Mixng shed & Road van for Explosives transporting from magazine to blasting site are available in Mines | As per proposed in SOM. |
|-----|--|---|---|---|
| 3k | Provision of mining machineries in mineral benches | For Loading 30T classs Excavateor is used. For Transportation 25 cu.m taurs tippers are used | For Loading 30T classs Excavateor is used. For Transportation 25 cu.m taurs tippers are used | As per proposed in SOM. |
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Bench height - 6M, Bench width-10 M. | Bench height -6M, Bench width-10 M. | As per proposed in SOM. |
| 3 m | Total area covered under excavation/pits | 19.77 HA | 19.77 HA | As per proposed in SOM. |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:0.16 | 1:0.12 | - |
| 30 | Total area put in use under different heads at the end of year | 61.365 HA | 61.365 HA | As per proposed in SOM. |
| 3p | Production of ROM mineral during the last five year period as applicable | 2017-18- 934954, 2018- 19-992017, 2019-20- 863949, 2020- 21-465520, 2021-22- 850713. | 2017-18-593500, 2018-19-597400, 2019-20-568600, 2020-21-360900, 2021-22-799000. | Actual production is with in the proposed production. |
| 3q | General remarks of inspecting officers on method of mining etc. | - | Actual producton is within the proposed production. | nil |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|-------------------------------------|---|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No separate dump for Top soil | No separate dump for Top soil | Top soil and overburden is backedfilled in limestone excavated area inside the Mines. |
| 4b | Location of topsoil, OB and mineral reject dumps | OB dumpis located in the nonLimestone area- Westernside of the lease Area | | OB dumpis located in the nonLimestone area-Westernside of the lease Area |
| 4c | Number of dumps within lease area and outside of lease area | 1 dump (within lease area) | 1 dump (within lease area) | As per proposed in SOM. |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Western part of the lease. | Western part of the lease. | As per proposed in SOM. |
| 4e | Number of active and alive dumps. | | No active or alive dumps available. | overburden soil is backedfilled in the mined out area. |
| 4f | Number of dead dumps. | NIL | NIL | NIL |
| 4g | Number of dumps established. | 1 | 1 | Overburden dump was in the western side within the lease area. |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Provided | provided | Retaining wall and garland drainage are provided all along the overburden dump . |
| 4i | Length of Retaining wall or garland drain all along dumps | 700x2x1 (m) | 700x2x1 (m) | provided. |
| 4j | Number of settling ponds | 1 | 1 | settling pond constructed at pit Top. |
| 4k | Specific comments of inspecting officer on waste dump management | - | - | Nil |

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. | | | As per proposed in SOM. |
|----|---|---|---|-------------------------|
| 5b | Area under backfilling of mined out area | O- HA | О- НА | - |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | the overburden at the bottom of minedout area , top | After backling the overburden at the bottom of minedout area , top soil is spread over the top of the backed area asnd afforestation done | As per proposed in SOM. |
| 5d | Total area fully reclaimed and rehabilitated | Total Area reclaimed- 26.210 ha | Total Area reclaimed- 26.210 ha | - |
| 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 . | Submitted | Submitted. |
| 6b | Area available for rehabilitation (ha) . | 1.2 HA (2021- 22) | 1.0 Ha (2021-22) | Total Area reclaimed-26.21 ha. |
| 6c | afforestation done (ha). | 1.2 ha (2021- 22) | 1.0 Ha (2021-22) | saplings planted only in the backfilled Area only. |

| 6d | No. of saplings planted during the year | 1200 saplings (2021-22). | 1200 saplings (2021-22). | saplings lanted only in the backfilled area only. |
|----|---|--|---|---|
| 6e | Cumulative no .of plants | NA | 42391 Saplings ((up to march 2022) | saplings planted on the backfilled area and wihin & outside lease area. |
| 6f | Any other method of rehabilitation | plantaion on the backfilled area. | plantaion on the backfilled area. | backfilling and plantation on the backfilled area. |
| 6g | Cost incurred on watch and care during the year | NIL | NIL | - |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | NIL | NIL | Total area reclaimed 26.26 ha. |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestati on on backfilled area | nil | Afforestation of back filled area-1200 saplings. | Afforestation of back filled area- 1200 saplings. |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | rehabilitation doing by backfiling with overbuden and plantion Making water | Reclaimation & rehabilitation doing by backfiling with overbuden and plantion Making water reservoir will be done at the end of the mine, if non backed area available. | Reclaimation & rehabilitation doing by backfiling with overbuden and plantion at present. |
| 61 | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means. | PMCP returns prepared &duly submitted | PMCP returns prepared &duly submitted | Reclaimation by backfilling. |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | No waste land available within the lease area | No waste land available within the lease area | No waste land available within the lease area |

| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | NA | NA | No waste land avaiable within the lease area. |
|----|---|----|-----------------------------------|--|
| 60 | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation | NA | NA | No waste land available within the lease area. |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | _ | PMCP measures found satisfactory. | No comments. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|----------------|----------------|----------------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | 850713 Tonnes | 799000Tonnes | Nil |
| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | Not applicable | Not applicable | No comment. |
| 7c | Different grade of mineral sorted out at mines. | Not applicable | Not applicable | Not applicable |
| 7d | Any beneficiation process at mines . | NA | NA | NA. |
| 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) | handled | Top soil is handled separtely and spred on the top suurface of the backfilled area over which Plantion done. | no comments. |
| 8b | Concurrent use or storage of topsoil | AN | NA | NIL |
| 8C | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | NA | NA | NA-ONLY BACKFILLING WITH OVERBURDEN. |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Overburden materialis used for backfilling of the mined out area. | Overburden materialis used for backfilling of the mined out area. | Overburden materialis used for backfilling of the mined out area. |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Reclamation by backfilling & Afforestation | | Reclamation by backfilling & Afforestation |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | The Area is devoid of any large trees.it contains thorny bushes, naturals vegetains like gresses, wild shrubs grown during the monsoon | planted varieties of tree like Neem ,, pungan, accacia etc and other trees in the backfilled area. | plantation carried out in the backfilled area. |
| 8g | Survival rate | 90% | 90% | 90% |
| 8h | Water sprinkling on roads to control airborne dust | water | Haul roads water sprinkling is carried out by using 12KL water tanker | Haul roads water sprinkling is carried out by using 12KL water tanker |

8i General remarks of inspecting
officer on
aesthetic beauty
in and around
mines area

nil

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|--|
| 9a | Status of submission of Monthly and Annual returns | Prepared & duly submitted | Prepared & duly submitted | Nil |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | , mining Engineer | mines mnager shri.Johnson D , mining Engineer shri.K.karuppasamy ,Geologist in-charge , Abani kumar pathy . | Nil |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | lease area utilization at | Already Explored & (1) abondoned by opencast working -0 ha , (11) covered under current working -19.77 ha , (111) Reclaimed /rehabiliated -26.21 ha , (1v) used for waste disposal -6.34 ha (V) Occupied by plant and building resisdential., welfare building & Roads -0.24 ha , (vi) other purpose , (Green belt, area, non mineral bearing land for future dumps, Afforestation, Infrasture) -8.805. ha | No comments. |
| 9d | Scrutiny of Annual return on afforestation | no.of trees planted the within the lease area during FY21- 22-1200. SURVIVAL RATE- 90 % | _ | NIL |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | mineral reject generated -0 tonnes, grate -high ferruginous (medium grade) | - | no sub grade is generated .Subgrated benches are submerged under water water logged area |

| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | working- | 799000 Tonnes. | Nil |
|----|---|------------------------|--|-----|
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | cost of production-Rs- | - | Nil |
| 9h | Scrutiny of Annual return on fixed assets | - | - | Nil |
| 9k | Scrutiny of Annual return on mining machineries | - | back hoe with bucket 2.0 cu. m-2 nos , back hoe with breaker attached -1 no , Dozer- 165 HP-1 no , Air compressor-460 CFM-1 NO , TIPPER- 25CU.m-19 NO , DIESEL DRIVEN- 1NO. PUMP ELECTRICAL DRIVEN-1 nO , WATER TANKER -12kl-1no E-van-1 no. | Nil |

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

| Violation | n observed | Show couse position | |
|-------------------|-------------------------|---------------------|-------------------------|
| Rule NO. | Issued on Compliance on | Rule NO. | Issued on Compliance on |
| MCDR17 Rule 11(1) | 14/12/2022 | | |

Date :

(T.PHALTHURAIRAJHEN)

Indian Bureau of Mines