

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/NA/VER-2/MDS

Mine code : 62TMN08001

- (i) Name of the Inspecting : **M017**) **Matiul Islam**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Thiru C Kathiravan, Agent & Thiru S Karthikeyan, Fore
Official with
Designation
- (iv) Date of Inspection : 19/02/2021
- (v) Prev.inspection date : 07/12/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SEVATHUR**
- (b) **Registration NO.** : **IBM/5661/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : VELLORE
- Village : SEVATHUR
- Taluka : TIRUPATTUR
- Post office : SEVATHUR
- Pin Code : 635654
- FAX No. : 044-28524960
- E-mail : TAMIN@MD3.VSNL.NET.IN
- Phone : 044-28530382 / 28570172
- (f) Police Station : KANDILI
- (g) First opening date : 01/07/1988
- (h) Weekly day of rest : SUN
2. Address for : SEVFATHUR VERMICULITE MINE, SEVATHUR,
correspondance SUNDARAPALLI.VIA,
TIRUPATHUR .TK, VELLORE.DT.
3. (a) Lease Number : TMN0391
- (b) Lease area : 23.71
- (c) Period of lease : 20
- (d) Date of Expiry : 22/02/2020
4. Mineral worked : VERMICULITE Main

5. Name and Address of the

Lessee : TAMILNADU MINERALS LTD
 31, KAMARAJA SALAI CHEPAUK,
 CHENNAI CHENNAI CITY TAMIL
 NADU
 Phone:
 FAX :

Owner : Chairman and Managing Director
 M/S.TAMIN,31Kamarajar
 Salai,TWAD House, Chepauk
 CHENNAI CITY TAMIL NADU
 Phone:
 FAX :

Agent : S.RAJENDRAN
 SEVATHUR VER MINE,
 SUNDARAPALLI.VIA,
 TIRUPATHUR.TK, VELLORE.DT.
 VELLORE TAMIL NADU
 Phone:
 FAX :

Mining Engineer

Name : D.SIVAKUMAR,Full Time
 Qualification : B.E., MINING
 Appointment/ : 21/01/2018
 Termination date

Manager

Name : T.R.SUNDARARAMAN
 Qualification :
 Appointment/ : 07/05/2018
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	05/09/1990
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	05/11/1997
		Renewal under rule 22 MCR1960	24/09/2003
		PMCP under 23B(1) for Renewal	26/09/2003
		Mining Scheme rule 12 MCDR1988	18/07/2013
		Mining Scheme rule 12 MCDR1988	18/07/2013
		Mining Scheme rule 12 MCDR1988	09/02/2015
		MP review under 17(1) MCR 2016	10/01/2020
		MP review under 17(1) MCR 2016	10/01/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	Mine already fully developed and occurrence of mineral established by actual mining
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Nil
1e	Balance reserve as on 01/04/20	-	1,70,628 Tonnes	Nil
1f	General remarks of inspecting officers on geology, exploration etc	-	-	Geology, exploration found to be satisfactory

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Pit No.4	Pit No.4	As per plan
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed	Separate benches maintained	As per plan
2c	Stripping ratio or ore to OB ratio	1:0.94	1:0.97	Marginal variation in SR
2d	Quantity of topsoil generation in m3	Nil	Nil	No top soil generation
2e	Quantity of overburden generation in m3	31,775 Tonnes (SB-1166te+MR-30609Te)	24,535 Tonnes (SB-981Te+MR-23554Te)	Within limit

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	The development of the mine was found to be satisfactory.
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Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	1 pit	1 pit	As per plan
3b	Quantity of ROM mineral production proposed	33,637 Tonnes	25,119 Tonnes	Less ROM Production due to less market demand
3c	Recovery of sailable/usable mineral from ROM production	3,028Tonne	584.150 Tonnes	Less recovery due to less ROM production
3d	Quantity of mineral reject generation	30,609 Te	23,554 Te	Less rejects generation due to less ROM Production
3e	Grade of mineral rejects generation and threshold value declared.	Vermiculite < 9%	Vermiculite < 9%	Nil
3f	Quantity of sub grade mineral generation.	Nil	Nil	No sub-grade
3g	Grade of sub grade mineral generation	NA	NA	No sub-grade
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	As per plan
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	No beneficiation test on sub grade mineral has been proposed or performed
3j	Provision of drilling and blasting in mineral benches	Nil	Nil	Drilling & Blasting not feasible

3k	Provision of mining machineries in mineral benches	No heavy machinery proposed	JCB loader and Tractor with Trailer	Manual Mine. As per plan.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	1.5 Mtr Height 1.5 Mtr Width	1.5 Mtr Height 4.0 Mtr Width	As per plan
3m	Total area covered under excavation/pits	6.100 Hect	4.300 Hect	Within limit
3n	Ore to OB ratio for the pit/mine during the year.	1:0.94	1:0.947	Marginal variation in Ore to OB ratio
3o	Total area put in use under different heads at the end of year	11.81Hect	11.00Hect	Within limit
3p	Production of ROM mineral during the last five year period as applicable	2015- 16=2,990Mts 2016- 17=3,006Mts 2017- 18=3,011Mts 2018- 19=3,011Mts 2019- 20=3,028Mts Mts - Metric Tonnes	2015-16=968.385Mts 2016-17=1690.175Mts 2017-18=1264.250Mts 2018-19=706.000Mts 2019-20=584.150Mts Mts - Metric Tonnes	Within limits. Less production due to less market demand.
3q	General remarks of inspecting officers on method of mining etc.	-	-	The method of mining was found to be satisfactory.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposed	Separate dumping carried out	As proposed
4b	Location of topsoil, OB and mineral reject dumps	Top Soil - Western Dump SB/MR - North, North-East & South-East	Top Soil - Western Dump SB/MR - North, North-East & South-East	As proposed

4c	Number of dumps within lease area and outside of lease area	4 dumps with in lease area	4 dumps with in lease area	As per plan
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside ultimate pit limit	Outside ultimate pit limit	As per plan
4e	Number of active and alive dumps.	4 Dumps	4 Dumps	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.	Nil	One small 1mtr height retaining wall constructed at south side	Dump height is 2 to 3 mtr only
4i	Length of Retaining wall or garland drain all along dumps	Nil	20Mtr	Nil
4j	Number of settling ponds	Nil	NA	Nil
4k	Specific comments of inspecting officer on waste dump management	-	-	The waste dump management was found to be 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.	Nil	Nil	Mineral not exhausted yet
5b	Area under backfilling of mined out area	NA	NA	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NA	NA	Nil

5d	Total area fully reclaimed and rehabilitated	NA	NA	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	Backfilling not proposed as mineral not exhausted yet & mining still under progress.

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	Not submitted in time	Violation issued.
6b	Area available for rehabilitation (ha) .	Nil	Nil	Mineral not exhausted yet
6c	afforestation done (ha).	0.03.5 ha	0.17.5 ha	Nil
6d	No. of saplings planted during the year	30 nos of sapling proposed	150 nos of sapling planted	Nil
6e	Cumulative no .of plants	150 nos	150 nos	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	No backfilling proposed as mineral not exhausted yet
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA	Nil

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	30 nos of saplings proposed	150 nos of saplings planted	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.03.5 ha	0.17.5 ha	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation	Afforestation	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Carried out	As proposed
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-	-	Violation issued for non-submission of Annual PMCP Report. Progressive Closure operations have been found to be satisfactory.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Size-wise sorting proposed within lease	Size-wise sorting carried out within lease	As proposed
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Winnowing & Sieving	Winnowing & Sieving	As proposed
7c	Different grade of mineral sorted out at mines.	Grade V - 1mm & below 1mm IV - 1mm to 3mm III - 3mm to 6mm	Grade V - 1mm & below 1mm IV - 1mm to 3mm III - 3mm to 6mm	As proposed
7d	Any beneficiation process at mines .	Modern Vermiculite Beneficiation Exfoliation Plant proposed at mine site	Exfoliation Plant running	As proposed
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	Mineral conservation & beneficiation found to be satisfactory

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil generated	No top soil generated	Nil
8b	Concurrent use or storage of topsoil	NA	NA	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps proposed	Separate dumps maintained	As proposed

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	Mineral not exhausted yet. No backfilling proposed or carried out at this stage.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA	Mineral not exhausted yet. No backfilling proposed or carried out at this stage.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	30 saplings per year	150 saplings planted during 2019-20	Nil
8g	Survival rate	50% Survival rate	50% Survival rate	Nil
8h	Water sprinkling on roads to control airborne dust	Proposed	Carried out	As proposed
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-	-	The aesthetic beauty in and around the mines area was found to be satisfactory.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Given	Submitted in time	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given in Part I, Sl 2	Manager Thiru.D.SIVAKUMAR B.E,M.B.A., Mining Engineer in charge Thiru.D.SIVAKUMAR,B.E,M. B.A. Geologist in charge Thiru.THANGAPANDIAN M.sc	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given in Part I, Sl 12	(i) Already exploited & abandoned by opencast (O/C) mining 1.500 (ii) Covered under current (O/C) Workings 4.300 (iii) Reclaimed/Rehabilitated 0.600 (iv) Used for waste disposal 3.900 (v) Occupied by plant, buildings, residential, welfare buildings & roads 0.700 (vi) Other Purpose () 0.000 (vii) Work done under progressive mine closure plan during the year 0.000	Nil
9d	Scrutiny of Annual return on afforestation	Given in Part V, Sec 4. Mining Operations during the year	4.4 (i) Number of trees planted during the year (a) Within lease area 150 (b) Outside lease area 0 (ii) Species 0 (iii) Survival rate in percentage 60.00	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Given in Part V, Sec 4 - Mineral Rejects for Vermiculite	4.2 Opencast 4.2 (B) (ii) Mineral Rejects generated with grades (tonnes) a. Quantity 0 b. Grade 0	Violation issued for wrong information
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given in Part VI, Sl 1 & 2	Category Opening stock (in tonne) Production (in tonne) Closing stock (in tonne) (a) Open Cast Workings 5328.280 584.150 5223.430	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given in Part VI, Sl 2 & Part VII	Ex-Mine Price - Rs 3310.00 Cost of Production - Rs 7145.50	Referred back date Reason Reply 03-03-2021 Kindly check overhead cost given and confirm/ rectify.
9h	Scrutiny of Annual return on fixed assets	Given in Part II(A)(Capital Structure)	Net Total Assets - Rs 2/- (i) Paid up Share Capital (in `) 0 (ii) Own Capital (in ` 1800000 (iii) Reserve & Surplus (All Types) 0 (iv) Long Term loans outstanding 0	Nil
9k	Scrutiny of Annual return on mining machineries	Given in Part V, Sec 5/6/8/9	Type of machinery Capacity of each unit No.of units Electrical/ Non-Electrical (specify) Used in opencast/ underground (specify) DOZER 72.000 HP 1 Non Electrical Opencast OTHER HEM MACHINERY 90.000 2 Non Electrical Opencast	Nil

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
Rule 26(2)	03/03/2021				
Rule 45(7)	03/03/2021				
MCDR17 Rule 55(1)(3)	03/03/2021				

Date :

(Matiul Islam)

Indian Bureau of Mines