

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

MCDR INSPECTION REPORT

Chennai regional office

Mine file No : TN/SLM/MG-13 MDS

Mine code : 39TMN11001

- (i) Name of the Inspecting : **T003**) **S.THIRUNAVUKKARASU**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri.V.Ramesh Mining Engineer
Official with
Designation
- (iv) Date of Inspection : 29/06/2019
- (v) Prev.inspection date : 08/12/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ARASU(177.96H)**
- (b) **Registration NO.** : **IBM/10727/2012**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : SALEM
- Village : THATHIENGARPATTI
- Taluka : OMALUR
- Post office : KARUPPUR
- Pin Code : 636012
- FAX No. : 0427-2346341
- E-mail : tanmag@eth.net
- Phone : 0427 - 2400272 / 2400675 /
- (f) Police Station : OMALUR
- (g) First opening date : 10/02/1979
- (h) Weekly day of rest : SUN
2. Address for : TAMILNADU MAGNESITE MINE
correspondance THATHIENGARPATTI PO& VILLAGE,
OMALUR.TK. SALEM.DT.- 636012
3. (a) Lease Number : TMN0387
- (b) Lease area : 234.28
- (c) Period of lease : 30
- (d) Date of Expiry : 02/12/2007
4. Mineral worked : DUNITE Associated
MAGNESITE Main

5. Name and Address of the

Lessee : M/s TAMIL NADU MAGNESITE CORPORATION LTD
 5/53, OMALUR MAIN ROAD
 JAGHIR AMMAPALAYAM SALEM
 SALEM TAMIL NADU
 Phone:
 FAX :

Owner : JATINDRANATH SWAIN, IAS, M/S. TAMILNADU MAGNESITE
 M/S. TAMILNADU MAGNESITE
 LIMITED 5/53, OMALUR MAIN
 ROAD, JAGIR AMMAPALAYAM,
 SALEM. SALEM TAMIL NADU
 Phone: 0427-2346333-6
 FAX : 0427-2346341

Agent : N.VEERAKUMAR
 16-A-1, RAJAJI ROAD, SALEM
 SALEM TAMIL NADU
 Phone: 0427-2417630, 2413883
 FAX : 0427-2346341

Mining Engineer
 Name : V.RAMESH, Full Time
 Qualification : B.E., MINING
 Appointment/ : 01/07/2002
 Termination date

Geologist
 Name : G.SUBBURAJ, Full Time
 Qualification : MSC(GEOLOGY)
 Appointment/ : 05/07/1983
 Termination date

Manager
 Name : KANDASAMY
 Qualification : DIPLOMA IN MINING WITH FIRST CLASS CERTI
 Appointment/ : 12/03/1980
 Termination date

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

Renewal under rule 22 MCR1960	29/06/2001
Mining Scheme rule 12 MCDR1988	25/08/2005
Renewal under rule 24 MCR1960	05/10/2012
Mining Scheme rule 12 MCDR1988	16/12/2013
MP review under 17(1) MCR 2016	04/05/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	Mineralised area fully explored.
1b	Exploration over lease area for geological axis 1 or 2	NIL	NIL	Mineralised area fully explored under G1 level
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	Not applicable	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	Not applicable	Mineralised area fully explored
1e	Balance reserve as on 01/04/20	---	Magnesite - 2463751 MT Dunite - 2257480 MT	Mine is not working .
1f	General remarks of inspecting officers on geology, exploration etc	-----	-----	The lease area fully geologically studied and exploration has taken place.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	888300N - 88790N and 2542500E - 2543000E	888300N - 88790N and 2542500E - 2543000E	No production and development
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NIL	Not applicable	Mine fully developed, no top soil, Since Magnesite is a vein type deposit, there is no separate OB,bench.
2c	Stripping ratio or ore to OB ratio	1:10.36	1: 7.88	Due to less development the Stripping ratio vary.

2d	Quantity of topsoil generation in m3	NIL	NA	It is very old mine ,Mine fully developed, no top soil, Since Magnesite is a vein type deposit, there is no separate topsoil devolment benches.
2e	Quantity of overburden generation in m3	NIL	NA	It is very old mine ,Mine fully developed, no top soil, Since Magnesite is a vein type deposit, there is no overburden generation
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-----	----	The development of pit is found systamtic, during inspection mine was not working

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3 Nos of working pit (Block A,B,&C)	Yearwise production proposed on Block- A	Mine is not working
3b	Quantity of ROM mineral production proposed	2018-19= 2673951	2018-19= 85,253	As per the proposal
3c	Recovery of sailable/usable mineral from ROM production	Year Magnesite MT (%) Dunite MT (%) 2014-15 120000 (3.77) 60000 (1.89) 2015-16 120000 (5.32) 60000 (2.66) 2016-17 120000 (6.30) 60000 (3.15) 2017-18 120000 (19.91) 60000 (9.96) 2018-19 124260 (4.65) 113498 (4.24)	Year Magnesite MT (%) Dunite MT (%) 2014-15 128829 (5.99) 34360 (1.60) 2015-16 108066 (7.01) 28220 (1.83) 2016-17 75916 (5.83) 57515 (4.42) 2017-18 78269 (4.26) 111170 (6.06) 2018-19 4823 (5.66) 6000 (7.03)	Mine not working

3d	Quantity of mineral reject generation	2415993 Mt	74430.97 MT	Mine is not working
3e	Grade of mineral rejects generation and threshold value declared.	2415993 MT	74430.97 MT	NIL
3f	Quantity of sub grade mineral generation.	Less than MgO -35% (Min.), CaO-3% (Max.), Fe2O3- 3% (Max.)	Less than MgO -35% (Min.), CaO-3% (Max.), Fe2O3- 3% (Max.)	NIL
3g	Grade of sub grade mineral generation	NIL	NA	No sub grade mineral generation
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised/ Manual sorting by skilled labours	Mechanised/ Manual sorting by skilled labours	Manually sorting by the skilled labours, removing the silica coating
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NIL	NA	Nobeneficiation study proposed.
3j	Provision of drilling and blasting in mineral benches	Yes	Deep hole drilling and blasting adopted	Duing inspection mine not working.
3k	Provision of mining machineries in mineral benches	Yes	Mining machineries provided as per the proposal.	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	It is observed Height of benches maintained as proposed in approved mining plan.	NIL
3m	Total area covered under excavation/pits	66.51.5 hect	66.51.5 hect	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1:9.36	1:9.36	NIL

3o	Total area put in use under different heads at the end of year	Pit = 66.51.5 ha Reclaimed area = NIL Green Belt = 5.10.0 ha Infrastructure & others=18.59.0 ha Dump =6.13.5 ha Total =96.34.0 ha	Pit = 66.51.5 ha Reclaimed area = NIL Green Belt =5.10.0 ha Infrastructure & others=18.59.0 ha Dump =6.13.5 ha Total =96.34.0 ha	=	As per the proposal
3p	Production of ROM mineral during the last five year period as applicable	2014-15 3180000 2015-16 2254929 2016-17 1905068 2017-18 602516 2018-19 2673950	2014-15 21,52,131.60 2015-16 15,40,256.88 2016-17 13,01,645.69 2017-18 18,35,346.81 2018-19 85,253.97		NIL
3q	General remarks of inspecting officers on method of mining etc.	----	---		method of mining id found systamatically,but duing inspection the minewas not working due to want of envionmet clearance.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Only one Reject dump	Only one Reject dump	No top soilm generation
4b	Location of topsoil, OB and mineral reject dumps	Only one Reject dump locted North-west	Only one Reject dump locted North-west	nil
4c	Number of dumps within lease area and outside of lease area	Within Lease area - 4 Outside area - NIL	Within Lease area - 4 Outside area - NIL	as per the proposal

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	North east and south west	North east and south west	As per the proposal
4e	Number of active and alive dumps.	Four	Four	As per the proposal
4f	Number of dead dumps.	NIL	NA	nil
4g	Number of dumps established.	one	one	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	YES	YES	as per the proposal
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall:930 mtrs Graland Drain: 930 mtrs	Retaining wall:930 mtrs Graland Drain: 930 mtrs	As per the proposal
4j	Number of settling ponds	NIL	NA	NIL
4k	Specific comments of inspecting officer on waste dump management	---	--	waste dump management is found systematically.

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.	Partly proposed	Not yet started, due to operation of mine was stopped	NIL
5b	Area under backfilling of mined out area	1.20.684 ha	Not yet started, due to operation of mine was stopped	Mine was not working
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NA	Not at the stage.
5d	Total area fully reclaimed and rehabilitated	NIL	NA	Partly proposed for backfilling, it also yet started.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	---	-----	backfilling , reclamation yet to started,during inspection mine was not working
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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 within stipulated time	Submitted in time
6b	Area available for rehabilitation (ha) .	NIL	NA	No are avilable for rehabilitation at the stage
6c	afforestation done (ha).	0.05.0 Hect	0.05.0 Hect	NIL
6d	No. of saplings planted during the year	500 saplings	500 saplings	nil
6e	Cumulative no .of plants	2500 nos	2500 nos	NIL
6f	Any other method of rehabilitation	NIL	NA	NO other specific method of rehabilitation
6g	Cost incurred on watch and care during the year	RS.125000	Rs.3,96,500	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	NA	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NA	NIL

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NA	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NA	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NA	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	NA	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NA	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	NA	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	YES	Complied as per proposal	AAQ survey regularly through by agency M/s Chennai mettex lab pvt ltd., Chennai (AAQ survey core and buffer, vibration, soil test, water analysis. Etc.,)
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	---	---	PMCP compliance & progressive closure operations is found satisfactory

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	sorting proposed Manually within the lease	Yes sorting done by skiled labours manully	sorting done by manually
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manually	sorting done by manually	NIL
7c	Different grade of mineral sorted out at mines.	RG (upto 6.5% of SiO2) and NRG (above 6.5% of SiO2)	RG (upto 6.5% of SiO2) and NRG (above 6.5% of SiO2)	NIL
7d	Any beneficiation process at mines .	NIL	NA	No beneficaiaation only sorting the magnesite
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	---	---	Mineral conservation & beneficiation is find satisfactory

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	NA	No top siol generation
8b	Concurrent use or storage of topsoil	NIL	NA	No top soil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	four	four	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NA	Mine is unde operation,mineral not exhasted .

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NA	Not at the stage
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2500 nos	2500 nos	116603 Nos plantation done .
8g	Survival rate	70%	70%	as per the proposal
8h	Water sprinkling on roads to control airborne dust	Yes	2 Nos of water Sprinkling	During inspection water Sprinkling carried out on roads to suppress the dust
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	---	---	aesthetic beauty in and around mines area is foug good

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Given	Annual returns Submitted in time	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	V.RAMESH Mining Engineer, Sri D.Ganesan Geologist	As per the proposal

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit-66.51.5 ha, Reclaimed area-NIL, Green Belt 5.10.0 ha, Infrastructure & others - 18.59.0 ha, Dump 6.13.5 ha, Total 96.34.0 ha.	Pit = 66.51.5 ha, Reclaimed area = nil, Green Belt = 5.10.0 ha, Infrastructure & others =18.59.0 ha, Dump =6.13.5 ha, Total =96.34.0 ha.	NIL
9d	Scrutiny of Annual return on afforestation	given	500 plantation	as per the proposal
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Given	74430.97 MT	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	74430.97 MT	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	given	Ex. Mine price= Rs.1,848.76 Production cost= Rs.1,848.76	ex.mine prise given in part- -IV and the Production cost furnished Part VII
9h	Scrutiny of Annual return on fixed assets	Given	Rs 195927000/-	Furnished under Part-II A
9k	Scrutiny of Annual return on mining machineries	Given	Name of the Machinery Capacity Nos Air Compressor (1 cum) = 4 Blast Host Drill (32 mm) = 5 Rock Drill (Non- Elec.) (1 mm) = 6 Shovel (Hydraulic) (1 cum) = 11 Dumper (35 ton) = 2 Tipper (10 cum) = 2 Explosive Van (2 ton) = 2 Dumper (25 ton) = 20 Water Tank (12000 lit) =4	NIL

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 :

(S. THIRUNAVUKKARASU)

Indian Bureau of Mines