

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/SLM/MG - 36, MDS

Mine code : 39TMN11011

- (i) Name of the Inspecting : **K08**) **G.SORNADURAI KANNAN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Thiru.A.K.Jayson (Director)
Official with
Designation
- (iv) Date of Inspection : 12/07/2022
- (v) Prev.inspection date : 13/09/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KONDAPPANAICKENPATTI**
- (b) **Registration NO.** : **IBM/14090/2012**
- (c) **Category** : **A Manual**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **TAMIL NADU**
- District : **SALEM**
- Village : **KONDAPPANAICKENPATTi**
- Taluka : **SALEM**
- Post office : **KANNANKURCHI**
- Pin Code : **636008**
- FAX No. : **0427-2317559**
- E-mail : **indiamagnesia@gmail.com**
- Phone : **0427 - 2313218, 0427-23159!**
- (f) **Police Station** : **KANNAKURICHI**
- (g) **First opening date** : **20/08/1993**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **KONDAPPANAICKENPATTI .VILLAGE**
KANNANKURICHI.PO.
SALEM.TALUK & DIST.TN.
3. (a) **Lease Number** : **TMN1626**
- (b) **Lease area** : **19.02**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **07/08/2036**
4. **Mineral worked** : **MAGNESITE** **Main**

5. Name and Address of the

Lessee : M/s INDIANA MAGNESIA PRODUCTS LTD
 III rd, FLOOR, BALAJI
 TOWERS SALEM SALEM TAMIL
 NADU
 Phone:0427 - 413218 / 415955
 FAX :0427 - 417559

Owner : SHRI H. SANYAL
 IIIrd, FLOOR BALAJI TOWERS
 SALEM SALEM TAMIL NADU
 Phone: 0427 - 413218 /
 FAX : 0427 - 417559

Agent : A.K.Jayson
 IMPL Salem SALEM TAMIL
 NADU
 Phone: 9442622348
 FAX :

Geologist

Name : A.Nagaraju, Full Time
 Qualification : M.Sc Geologist
 Appointment/ : 01/10/2017
 Termination date

Manager

Name : Jawahar
 Qualification : BE Mining Engineer
 Appointment/ : 01/01/2018
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	25/01/1996
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	31/07/2001
		Renewal under rule 24 MCR1960	19/08/2005
		Mining Scheme rule 12 MCDR1988	03/11/2012
		Mining Scheme rule 12 MCDR1988	03/03/2016
		MP modif under 17(3) MCR 2016	01/09/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Proposal	47 Core Boreholes has been drilled during 2020-2021	Form-I & J has been submitted to this office.
1b	Exploration over lease area for geological axis 1 or 2	No additional exploration was proposed during 2021-2022 in the lease area for Geological axis - 1	No additional exploration was carried out in the lease area for Geological axis - 1 during 2021-2022	47 - Core boreholes were carried out in the lease area for Geological axis - 1, during 2020-2021 with 1175 meterage.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal for exploration during 2021-2022	No Exploration during 2021-2022 and 47 boreholes were drilled during 2020-2021. Total Rs. 7.05 lakhs was spent on exploration during 2020-2021.	So far 60 boreholes have been drilled in the lease upto 2020-2021. Total expenditure towards exploration is 7.65 Lakhs
1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration was not proposed during 2021-2022.	No Exploration has been carried out during 2021-2022.	Entire area has been explored under G-1 category with 30m X 30m grid interval.
1e	Balance reserve as on 01/04/20	As on 01.04.2022 Proved Mineral Reserves (111) = 1698811 tons Pre-Feasibility Mineral Resources (221 & 222) = 14802366 Tons.	As on 01.04.2022 Proved Mineral Reserves (111) = 1687114 tons Pre-Feasibility Mineral Resources (221 & 222) = 14802366 Tons.	The available grade of Magnesite in this lease area is Refractory Grade.
1f	General remarks of inspecting officers on geology, exploration etc	Located at the foothills of Shevaroys. Due to weathering, Magnesite outcrop looks like Chalk hills.	The belt comprises of intrusive Dunite, Peridotite, Pyroxenite & Magnesite ore.	Magnesite deposit has emplaced as veins in the ultrabasic rocks

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During 2021-2022, working proposal was in North, South and East block of the lease area	Working has carried out in North & South block as per the proposal.	Violation has been issued under Rule 11(1)
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	It is proposed to form separate Bench's in Overburden - 3 benches Mineral - 3 benches	Separate benches are formed for OB & Minerals.	When the vein deposit has removed from benches, after that it is considered as Overburden benches.
2c	Stripping ratio or ore to OB ratio	1 : 13.28	1 : 12.62	Ore to OB ratio has reduced due to less production has excavated.
2d	Quantity of topsoil generation in m3	No Topsoil has been proposed during 2021-2022	Nil, there is no topsoil generation in 2021-2022	There is no proposal to work on Topsoil benches during this proposed plan period.
2e	Quantity of overburden generation in m3	OB waste is only Intercalated waste. During 2021-2022 it is proposed to remove 332545 tons	168283 tons of waste generation in 2021-2022	Violation has issued under Rule 11(1) for achieving less production.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	OB waste is only Intercalated waste. During 2021-2022 it is proposed to remove 332545 tons	168283 tons of waste has generated against 332545 tons of proposal during 2021-2022	Ore to OB ratio has reduced due to less production has excavated.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Development and production was proposed in North, South and East block of the lease area	Development and production are carried out in North & South block.	Violation has issued under Rule 11(1)

3b	Quantity of ROM mineral production proposed	The total target of ROM Production proposed was 357575 tons during 2021-2022. Saleable production is 25030 tons.	Achieved ROM Production is 181616 tons during 2021- 2022. Saleable production is 13333 tons.	13333 tons as ore and 168283 tons as intercalate waste
3c	Recovery of sailable/usable mineral from ROM production	7%	7%	93% is waste.
3d	Quantity of mineral reject generation	There is no Mineral Reject generation	There is no Mineral Reject generation	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Nil	Nil
3f	Quantity of sub grade mineral generation.	No Sub Grade Generation	No Sub Grade Generation	Nil
3g	Grade of sub grade mineral generation	There is No Generation of Subgrade Mineral	There is No Generation of Subgrade Mineral	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting of Magnetite is proposed.	As per proposal Manual sorting of Magnetite is done.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Beneficiation Study is Proposed	Only Manual Picking of Ore from Intercalated Waste	Rock Breaker is used for breaking the strata as medium hard in nature.
3j	Provision of drilling and blasting in mineral benches	No Drilling & Blasting are proposed.	As per proposal the Drilling & Blasting are not carried out.	Rock Breaker is deployed for breaking and fragmentation to avoid blasting.
3k	Provision of mining machineries in mineral benches	Excavator - 1 Rock Breaker - 1 Tippers - 4 Water Tanker - 1	As per proposal the machineries are there during inspection.	Nil

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	In 2021-2022, Bench height of 6m was proposed in Mineral.	As per proposal benches are formed.	Nil
3m	Total area covered under excavation/pits	9.50 hect area is proposed for Pit during 2021-2022	9.32 hect areas are under Pit only.	Due to less production, proposed area is not achieved.
3n	Ore to OB ratio for the pit/mine during the year.	1 : 13.28	1 : 12.62	Ore to OB ratio has reduced due to less production has excavated.
3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2022. Mines = 9.50 hect Dump = 6.72 hect Infrastructure = 0.10 hect Afforotation = 0.48 hect	Land use Pattern as on 01.04.2022. Mines = 9.32 hect Dump = 6.72 hect Infrastructure = 0.10 hect Afforotation = 0.48 hect	Landuse pattern is same as per proposal except mines area due to less production achieved.
3p	Production of ROM mineral during the last five year period as applicable	2021-2022 = 357575 tons 2020-2021 = 224435 tons 2019-2020 = 423300 tons 2018-2019 = 386070 tons 2017-2018 = 431480 tons	2021-2022 = 181616 tons 2020-2021 = 183545 tons 2019-2020 = 281704 tons 2018-2019 = 272132 tons 2017-2018 = 166176 tons	Achieved ROM Production is 181616 tons during 2021- 2022. Saleable production 13333 tons as ore and 168283 tons as intercalate waste.
3q	General remarks of inspecting officers on method of mining etc.	Development and production are carried out in North & South block.	Rock Breaker is deployed for breaking and fragmentation to avoid blasting.	Achieved ROM Production is 181616 tons during 2021- 2022. Saleable production 13333 tons as ore and 168283 tons as intercalate waste.

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)	Only Intercalated waste dumping has proposed during 2021-2022	Dumping has been carried out as per proposal	Dumping has carried out on South block of the lease area.
4b	Location of topsoil, OB and mineral reject dumps	Dumping has proposed on south block of the lease area during 2021-2022	Dump is present in proposed area	Dumping is proposed for 2021-2022 only.
4c	Number of dumps within lease area and outside of lease area	Lease area = 2 Non Lease area = Nil	Lease area = 2 Non Lease area = Nil	Two dumps are present in the lease area, one in North Block and other in South Block.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	2 Nos of Dumps are active	2 Nos of Dumps are active	Nil
4f	Number of dead dumps.	One dead dump on North block	One dead dump on North block	Nil
4g	Number of dumps established.	No Proposal	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & Garland drain are not proposed	Retaining wall & Garland drain are not constructed	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	Dumping has proposed on south block of the lease area during 2021-2022	Dumping has carried out on South block of the lease area.	Two active dumps are present in the lease area, one in North Block and other in South Block.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal for backfilling during 2021-2022	No backfilling has done during 2021-2022	Backfilling has proposed from 2022-2023 onwards.
5b	Area under backfilling of mined out area	No Proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No Proposal	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No backfilling has done during 2021-2022	The mine was not worked upto the proved depth and no backfilling were proposed during 2021-2022.	Backfilling has proposed from 2022-2023 onwards.

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).	It should be submitted on or before 1st July every year.	Submitted for the year 2021-2022.	Nil
6b	Area available for rehabilitation (ha) .	Nil	Nil	Nil
6c	afforestation done (ha) .	Nil	Nil	Nil
6d	No. of saplings planted during the year	Nil	Nil	Nil
6e	Cumulative no .of plants	Nil	Nil	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
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 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	100 saplings proposed for 2021-2022	101 saplings achieved during 2021-2022	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Proposed 0.08 hect in 2021-2022	0.08 hect achieved during 2021-2022	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Green Belt development along 7.5m safety barrier.	Plantation has been done as per proposal along the safety barrier	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Bi-Annually Survey	Environment monitoring is carried out through Government as well as private agency.	Lessee is conducting Environmental monitoring and all are within permissible limit
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	100 saplings proposed for 2021-2022	Cumulatively 177 nos achieved from 2020-2021 to 2021-2022 planted inside & outside lease area	Plantation has been done as per proposal along the safety barrier

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	357575/ ROM 25030/ Saleable Ore	181616/ ROM 13333/ Saleable Ore	Violation has issued under Rule 11(1) for achieving less production.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting of Magnetite is proposed.	As per proposal Manual sorting of Magnetite is done.	The available grade of Magnesite in this lease area is Refractory Grade.
7c	Different grade of mineral sorted out at mines.	MgO = 35 - 495% CaO = 0.5 - 2.5%	MgO = 35 - 495% CaO = 0.5 - 2.5%	Magnesite which is more than 35% MgO is Suited for Refractory Industries
7d	Any beneficiation process at mines .	Manually sorting and sizing proposed	Manually sorting and sizing is being done	No Beneficiation process is Proposed
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No Beneficiation process is Proposed	Manually sorting and sizing is being done	The available grade of Magnesite in this lease area is Refractory Grade.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	There is no proposal for separately remove and utilized of topsoil	Topsoil generation is not there during 2021-2022	There is no proposal to work on Topsoil benches during this proposed plan period.
8b	Concurrent use or storage of topsoil	No Proposal	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumping has proposed on south block of the lease area during 2021-2022	Dump is present in proposed area	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	At present there is no proposal for restoring.	Nil	Backfilling has proposed from 2022-2023 onwards.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	Nil	Backfilling has proposed from 2022-2023 onwards.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	100 saplings proposed for 2021-2022	Lessee has planted 101 plants during 2021-2022	Cumulatively 177 nos achieved from 2020-2021 to 2021-2022 planted inside & outside lease area
8g	Survival rate	No proposal in approved document	55%	Nil
8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for water sprinkling on haul roads.	Daily Water tanker is spraying water on mines roads side to control airborne dust.	During Inspection, water sprinkling on mines roads has been noticed.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Scanty vegetation, bushes, neem are observed in lease area	Surrounding area beyond lease area is greenery	Outside lease area, agriculture is done with drift irrigation.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR Submitted up to = June 2022 AR Submitted up to = 2021-2022	Nil	Both Annual & Monthly returns are submitting in online system.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Full time Mining Engineer & Mining Geologist has shown	During inspection both are present.	It is advice the lessee to appoint full time mine surveyor also.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use Pattern as on 01.04.2022. Mines = 9.32 hect Dump = 6.72 hect	Landuse Pattern is filled as per approved Mining Plan	Nil
9d	Scrutiny of Annual return on afforestation	Lessee has planted 101 saplings during 2021-2022	Plantation has been done as per proposal along the safety barrier	Lessee has planted 101 saplings inside lease area during 2021-2022. With Survival Rate of 55%
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	There is no Mineral Rejects Generation	There is no Mineral Rejects Generation	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Achieved ROM Production is 181616 tons during 2021-2022.	Out of 181616 tons of ROM, 13333 tons as ore and 168283 tons as intercalate waste	Mine has dispatches 13342 tons of Magnesite during 2021-2022 and 340 tons as closing stock.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production & Ex. Mine Price has shown	Some invoice has been checked	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed Assets is given	Fixed Assets is filled	Nil
9k	Scrutiny of Annual return on mining machineries	Machineries details given	As available in field	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
MCDR17	Rule 11(1)	27/07/2022			
MCDR17	Rule 27(2)	27/07/2022			
MCDR17	Rule 33	27/07/2022			

Date :**(G.SORNADURAI KANNAN)**

Indian Bureau of Mines