

<b>INDIAN BUREAU OF MINES</b> <b>MINERAL DEVELOPMENT AND REGULATION DIVISION</b> <b>MCDR INSPECTION REPORT</b> <b>Chennai Regional Office</b>		
<b>Mine file No.TN/TKD/LST-19, MDS</b>		<b>Mine code - 38TMN31011</b>
(i)	Name of the inspecting officer & Designation	<b>KUMERESH A</b> Senior Assistant Controller of Mines
(ii)	Accompanied mine official and designation	Shri K.SARAVANAN, (Sr.DGM-Mines) Shri SMD MASOOM BASHA, AGM – Mines Manager Shri V.MAHESHA, Dy. Manager – Mining Engineer Shri V.C.SHUNMUGAM, AGM - Geologist
(iii)	Date of inspection	16-12-2024
(iv)	Date of previous inspection	08.07.2023
<b>PART-I: General Information</b>		
1.	Mine Name	Sivalarpatti Limestone Mine-Lease-II ,G.O.Ms.No-5
(b)	Registration Number	IBM/638/2011
(c)	Category	A
(d)	Type of Working	Opencast
(e)	Postal Address State District Village Taluka Post Office Pin Code FAX No. E-mail Phone	The Ramco Cements Limited, Ramasamy Raja Nagar, Virudhunagar District, Tamilnadu Phone: 04562-256201, 202 and 203 Email: saravanankmtd@ramcocements.co.in
(f)	Police Station	Pudur
(g)	First opening date	18.02.2022
(h)	Weekly day of rest	Scattered
2.	Address for correspondence	The Ramco Cements Limited, Ramasamy Raja Nagar, Virudhunagar District, Tamilnadu Phone: 04562-256201, 202 and 203 Email: saravanankmtd@ramcocements.co.in
3.	Lease Number	
	Lease Area	129.72 Ha
	Period of lease	50 years
	Date of expiry	10.01.2067

4.	Mineral worked	Limestone
5.	Name and address of the	
	Lessee:	The Ramco Cements Limited
	Owner:	Shri. P.R.VENKETRAMA RAJA, Chairman & Managing Director, The Ramco Cements Limited, Auras Corporate Centre, 98-A, Dr.Radhakrishnan Salai, Mylapore, Chennai-600004. Phone:044 28478666 Date of Appointment: 18.02.2022
	Agent:	Shri. S.LAKSHMANAN, Assistant Vice President (Mfg), The Ramco Cements Limited, Ramasamy Raja Nagar, Virudhunagar District. Phone: 04562-256201, 202and 203 Email: sln@ramcocements.co.in Date of Appointment: 18.05.2024
	Manager:	Shri. SMD MASOOM BASHA, AGM (Mines), The Ramco Cements Limited, Ramasamy Raja Nagar, Virudhunagar District. Phone: 04562-256201, 202 and 203 Email: saravanankmtd@ramcocements.co.in Date of Appointment: 01.04.2023.
	Engineer:	Shri. V.MAHESHA, Dy. Manager (Mines), The Ramco Cements Limited, Ramasamy Raja Nagar, Virudhunagar District. Phone: 04562-256201, 202 and 203 Email: saravanankmtd@ramcocements.co.in Date of Appointment: 13.05.2022.
	Geologist:	Shri. V.C.SHUNMUGAM, AGM (Geology), The Ramco Cements Limited, Ramasamy Raja Nagar, Virudhunagar District. Phone: 04562-256201, 202 and 203 Email: ckk@ramcocements.co.in Date of Appointment: 04.05.2022.

6	Date of Approval of Mining Plan/Modified Mining Plan with five – year period and specific condition in approval letter, if any.	Fresh under Rule 22 MCR 1960: 23.05.2016 Mp review under 17(1) MCR 2016: 19.11.2020
	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five – year period and specific condition in approval letter, if any.	

**PART-II : OBSERVATION / COMMENTS OF INSPECTING OFFICER**  
**EXPLORATION**

S. No.	Item	Proposals	Actual Work	Remarks
1a	Backlog of previous year	No proposal	Nil	No proposal was made as the entire lease area was fully explored.
1b	Exploration over lease area for Geological axis 1 or 2.	129.72 Ha	129.72 Ha	Total Mineralised area entirely explored upto G1 Level
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No proposal	NA	ML Area explored by CMG & TRCL
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	NA	Exploration already completed for proving of Limestone at Bottom level (upto the UPL Limit)
1e	Balance reserves as on 01.04.2024 (111 Category)	1.792 Mil.Tons		
1f	General comments of inspecting officer on geology, exploration etc.	-	-	Geology & Exploration of the mine were found satisfactory.

**DEVELOPMENT**

S. No.	Item	Proposals	Actual Work	Remarks
2a	Location of development w.r.t. lease area	ML-2.5 to 4.10 Above + 53 RL	ML-2.5 to 4.10 Above + 53 RL	As per the Proposal
2b	Separate benches in topsoil, overburden and minerals (Rule 13 of MCDR-2017)	Topsoil - 1 OB-1 Limestone-1	Topsoil - 1 OB-1, Limestone-1	Separate benches are maintained.
2c	Stripping ratio or ore to OB ratio	1 : 0.34	1 : 0.32	Stripping Ratio (T:T) within the Limit
2d	Quantity of topsoil generation in m3	13,200	10,440	Top Soil Stacked & utilized for Afforestation
2e	Quantity of overburden generation in m3	27,000	25,650	Nearer to the proposal
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc.	--	--	--

**EXPLOITATION**

S. No.	Item	Proposals	Actual Work	Remarks
3a	Number of Pit proposed for production	1 No. of Pit ML-2.5 to 4.10	1 No. of Pit ML-2.5 to 4.10	As per the Proposal

3b	Quantity of ROM mineral production proposed	229,500 T	229,364.16 T	As per Proposal
3c	Recovery of salable/usable mineral from ROM production	90 %	100 %	Entire ROM Limestone produced has been transported to Common Crushing Plant situated at Pandalgudi. No mineral reject generation during this year and no beneficiation activities involved within MLB.
3d	Quantity of mineral reject generation	22,950 T	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Grade of mineral reject: CaO - 35 to 34. & Threshold Value: CaO- 34% (Min.) and MgO- 5% (Max.).	Threshold Value Achieved: CaO- 34% (Min.) and MgO- 5% (Max.).	Nil
3f	Quantity of sub grade mineral generation.	No Proposal	NA	No subgrade mineral generation.
3g	Grade of sub grade mineral generation	Nil	NA	No subgrade mineral generation.
3h	Manual / Mechanized method adopted for segregating from ROM	Mechanized methods proposed.	Mechanized methods of mineral segregation/ beneficiation techniques adopted at crushing plant situated outside ML.	Mineral conservation is practiced.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal given.	No proposal during the plan period.	Nil
3j	Provision of drilling and blasting in mineral benches	Spacing – 3.5 m Burden – 2.5 m Depth – 10 m Dia – 115 mm	Deep hole drilling and blasting is practiced. Holes depth - 10 m Spacing - 3.5- 4.0 m Burden – 2.5m Hole dia 115 mm	Controlled blasting by using Slurry Cartridge, NONEL & Delay Detonators.
3k	Provision of mining machineries in mineral benches	Excavator -1 Backhoe loader-1, Air Compressor-1, Drill-1, Rock Breaker- 1, Tipper-12.	Back Hoe 0.900 Cum – 1, Tipper 12 Cum -2	Bench height is 9m and width 9- 12 m maintained.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in RoMP	9 m height benches proposed both in Ore and OB.	Benches maintained as per proposal.	Bench height and width suitable for mechanized method and machinery

				deployed.
3m	Total area covered under excavation/pits	5.72 Ha	4.65 Ha	Nearer to the proposal
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.34	1 :0.32	Stripping Ratio (T:T) within the Limit
3o	Total area put in use under different heads at the end of year	69.170 Ha	67.37 Ha	Within proposed limits
3p	Production of ROM mineral during the last five-year period as applicable	2019-20=3,31,750 2020-21=2,36,250 2021-22=2,29,500 2022-23=2,29,050 2023-24=2,29,500	2019-20= Nil 2020-21= Nil 2021-22= 39,861.36 2022-23=1,59,423.78 2023-24=2,29,364.16	As per Proposal
3q	General remarks of inspecting officers on method of mining etc.	-	-	The method of mining was found satisfactory.

**SOLID WASTE MANAGEMENT-DUMPING**

S. No.	Item	Proposals	Actual Work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 36,37)	Separate dumps of Topsoil, OB Provided	Dumping carried out separately for existing Topsoil & OB.	As per Proposal
4b	Location of topsoil, OB and mineral reject dumps	<p>Waste Dumps: –</p> <p>DUMP-1: 9°19'51.21"N-9°19'59.95"N to 78°8'32.00"E-78°8'43.13"E</p> <p>DUMP-2: 9°19'33.49"N-9°19'51.01"N to 78°8'44.83"E-78°8'55.75"E</p> <p>DUMP-3: 9°18'18.49"N-9°18'49.99"N to 78°9'18.69"E-78°9'35.21"E</p> <p>DUMP-4: 9°17'47.61"N-9°17'59.88"N to 78°9'29.72"E-78°9'52.85"E</p> <p>Topsoil Dumps: - Topsoil Dump-1:</p>	<p>Waste Dumps: –</p> <p>DUMP-1: 9°19'51.21"N-9°19'59.95"N to 78°8'32.00"E-78°8'43.13"E</p> <p>DUMP-2: 9°19'33.49"N-9°19'51.01"N to 78°8'44.83"E-78°8'55.75"E</p> <p>DUMP-3: 9°18'18.49"N-9°18'49.99"N to 78°9'18.69"E-78°9'35.21"E</p> <p>DUMP-4: 9°17'47.61"N-9°17'59.88"N to 78°9'29.72"E-</p>	Waste Dumps – 5 to 8 are situated within Sivalarpatti Limestone Mine Lease - I

		9°18'10.92"N- 9°18'14.62"N to 78° 9'39.68"E- 78° 9'42.52"E  Topsoil dump-2 9°18'10.08"N- 9°18'12.00"N to 78° 9'13.97"E- 78° 9'16.95"E	78°9'52.85"E  Topsoil Dumps: - Topsoil Dump-1: 9°18'10.92"N- 9°18'14.62"N to 78° 9'39.68"E- 78° 9'42.52"E  Topsoil dump-2 9°18'10.08"N- 9°18'12.00"N to 78° 9'13.97"E- 78° 9'16.95"E	
4c	Number of dumps within lease area and outside of lease area	Partly Outside ML- Waste Dump-1 to 4 & Topsoil Dump-1  Within ML- Topsoil Dump -2	Partly Outside ML- Waste Dump-1 to 4 & Topsoil Dump-1  Within ML- Topsoil Dump -2	As per Proposal.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside of Ultimate Pit Limit	Yes outside Ultimate Pit Limit	No proposal made within ultimate pit limit.
4e	Number of active and alive dumps.	2	2	Waste Dump No.4 & Topsoil Dump No. 2
4f	Number of dead dumps.	4	4	Waste Dumps No. 1, 2, 3 & Topsoil Dump No.1
4g	Number of dumps established.	1	1	Waste Dump No. 1 has been stabilized and remaining waste dump no. 2 & 4 are partially stabilized.
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposal	Nil	-
4i	Length of Retaining wall or garland drain all along dumps	No Proposal	No proposal	-
4j	Number of settling ponds	Nil	Nil	-
4k	Specific comments of inspecting officer on waste dump management	--	--	Waste dump management was found satisfactory.

**SOLID WASTE MANAGEMENT-BACKFILLING**

S. No.	Item	Proposals	Actual Work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal for backfilling during 2023-24	No backfilling has been done during 2023-24	The pit has not been worked up to the proven depth and therefore, no backfilling is proposed in 2023-24.
5b	Area under backfilling of mined out area	No Proposal	Nil	--
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No Proposal	Nil	--

5d	Total area fully reclaimed and rehabilitated	No Proposal	Nil	--
5e	General remarks of inspecting officers on backfilling and reclamation etc	--	--	The pit has not been worked up to the proven depth and therefore, no backfilling is proposed in 2023-24.

**PROGRESSIVE MINE CLOSURE PLAN**

S. No.	Item	Proposals	Actual Work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 26 (2)	Before the 1st day of July each year	Submitted for the year 2022-23	Nil
6b	Area available for rehabilitation (ha).	No Proposal	NA	Nil
6c	Afforestation done (ha).	No Proposal	NA	Nil
6d	No. of saplings planted during the year	No Proposal	NA	Nil
6e	Cumulative no. of plants	No Proposal	NA	Nil
6f	Any other method of rehabilitation	No Proposal	NA	Nil
6g	Cost incurred on watch and care during the year	No Proposal	NA	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D)	No Proposal	NA	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	NA	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation backfilled area	No Proposal	NA	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	NA	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	800 Nos. – Waste Land 3000 Nos.–on Waste Dump	850 Nos. – Waste Land 3050 Nos.–on Waste Dump	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	1.65 Ha-- Waste Land 3.0 Ha – Waste Dump	1.65 Ha-- Waste Land 3.0 Ha – Waste Dump	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Plantation proposed - 800 saplings on waste land and 3000 Saplings on Waste Dump.	Plantation carried out - 850 saplings on waste land and 3050 Saplings on Waste Dump.	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Periodically Monitored	Quarterly environment monitoring data submitted. All the parameters are under permissible limit.	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Before the 1st day of July each year	Submitted for the year 2022-23	As proposed in Review of mining plan.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	--	--	PMCP Compliance & progressive closure operations were found satisfactory.

**MINERAL CONSERVATION**

S. No.	Item	Proposals	Actual Work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No sorting proposed within Mining Lease	No sorting carried out within Mining Lease	No mineral sorting carried out at within Mining Lease.
7b	Method of grade wise mineral sorting i.e. manual or mechanical.	No separation at mine head.	Mechanical methods adopted outside ML.	ROM transported to crusher located outside ML, having Color based sorting technology is being used for beneficiation of Limestone.
7c	Different grade of mineral sorted out at mines.	Nil	NA	No segregation of mineral at mine head.
7d	Any beneficiation process at mines	Nil	NA	Nil
7e	General remarks of inspecting officer on Mineral Conservation & beneficiation issues	-	-	Entire ROM excavated is consumed. No beneficiation is proposed or carried out.

**ENVIRONMENT**

S. No.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes	Removed Topsoil Separately stored and it will be utilized for plantation in future.
8b	Concurrent use or storage of topsoil	Yes	Yes	26506 cu.m
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps proposed for OB and topsoil.	Separate dumps maintained for OB and topsoil.	Separate dumps are maintained as per approved Review of Mining Plan.



8d	Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use	Nil	NA	Not at this Stage
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	1.65 Ha-- Waste Land 3.0 Ha – Waste Dump	1.65 Ha-- Waste Land 3.0 Ha – Waste Dump	Plantation with local species like Neem, Pungai & Vagai
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation proposed - 800 saplings on waste land and 3000 Saplings on Waste Dump.	Plantation carried out - 850 saplings on waste land and 3050 Saplings on Waste Dump.	Nil
8g	Survival rate	90%	90 %	90 % of Survival Rate maintained
8h	Water sprinkling on roads to control airborne dust	8 KL Water Tanker	As per Proposal	Water Tanker is being used for Dust Suppression
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	--	--	The aesthetic beauty in and around mines area was found satisfactory.

**COMPLIANCE UNDER RULE-45**

S. No.	Item	Proposals	Actual Work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri. SMD MASOOM BASHA, (Mines Manager) Shri.V.Mahesha (Mining Engineer), Shri.V.C.Shunmugam (Geologist)	Shri. SMD MASOOM BASHA, (Mines Manager) Shri.V.Mahesha (Mining Engineer), Shri.V.C.Shunmugam (Geologist)	Given in part I sl No 7-9
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining – 4.65 Ha. Waste Disposal- 45.65 Ha Road – 1.33 Ha Others – 78.09 Ha area as per AR 2023-24.	Area under Mining – 4.65 Ha. Waste Disposal- 45.65 Ha Road – 1.33 Ha Others – 78.09 Ha area as per AR 2023-24.	Given in part I sl No 12
9d	Scrutiny of Annual return on afforestation	3050 saplings of waste dump and 850 saplings on waste land (3900 Nos)	4.65 Ha (3900 Nos)	Given in part V sl No 5

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	No mineral reject generated during the period.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil Stock	2,29,364.16 tonnes of ROM production reported as per 2023-24	Given in part VI sl No 1&2
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production & Ex Mine Price @ Rs.552.09	It is captive mine, Ex. mine price and cost of production checked and found correct.	Given in part VI sl No 2 & part VII
9h	Scrutiny of Annual return on fixed assets	Rs.86425791 shown as fixed asset value in AR 2023-24.	As per filled Annual Return.	Provided in part -II (A).Jointly for 7 leases.
9i	Scrutiny of Annual return on mining machineries	Shri. SMD MASOOM BASHA, (Mines Manager) Shri.V.Mahesha (Mining Engineer), Shri.V.C.Shunmugam (Geologist)	Shri. SMD MASOOM BASHA, (Mines Manager) Shri.V.Mahesha (Mining Engineer), Shri.V.C.Shunmugam (Geologist)	Given in part VI sl No 6

Details of violations observed during current inspection and compliance position of violations pointed out					
Violation observed			Show cause position		
Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on

Date:

**KUMERESH A**  
**SrAsst Controller of Mines**  
Indian Bureau of Mines