

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

MCDR inspection REPORT

Chennai regional office

Mine file No : TN/TNL/LST-1- MDS

Mine code : 38TMN15002

- (i) Name of the Inspecting : **G039**) **G.C.Sethi**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Thiru.P.Rajesh, Manager Mines
Official with
Designation
- (iv) Date of Inspection : 05/09/2023
- (v) Prev.inspection date : 13/10/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KRISHNA**
- (b) **Registration NO.** : **IBM/7025/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : TAMIL NADU
- District : TIRUNELVELI
- Village : RAMAYANPATTI
- Taluka : TIRUNELVELI
- Post office : SETHURAYANPUDHUR
- Pin Code : 627358
- FAX No. : 0462 - 2339248
- E-mail : krishnamines@sancharnet.in
- Phone : 0462 - 2333200, 2333877
- (f) Police Station : SANKAR NAGAR
- (g) First opening date : 17/02/1958
- (h) Weekly day of rest : SUN
2. Address for : M/s KRISNA MINES,
correspondance : 23,SRIPURAM
TIRUNELVELI JN.
3. (a) Lease Number : TMN0166
- (b) Lease area : 31.09
- (c) Period of lease : 6
- (d) Date of Expiry : 27/01/1989
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : KRISHNA MINES
 Post Box No 8, 23, SRIPURAM
 TIRUNELVELI TAMIL NADU
 Phone:2333200/2333877
 FAX :91-462-339248

Owner : K.SHANKAR, OWNER
 POST BOX NO - 8 23,
 SRIPURAM TIRUNELVELI TAMIL
 NADU
 Phone: 2333200/2333877
 FAX : 0462-2339248

Mining Engineer

Name : Shankaranarayan R,Full Time
 Qualification : B.E.(Mining Engineering)
 Appointment/ : 04/12/2021
 Termination date

Geologist

Name : Vinayak Shankar,Full Time
 Qualification : M.Sc. (Geology)
 Appointment/ : 07/02/2022
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	14/02/1991
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	06/09/2001
		Mining Scheme rule 12 MCDR1988	06/09/2001
		Modif.of approved Mining Plan	12/08/2005
		Mining Scheme rule 12 MCDR1988	31/01/2012
		Renewal under rule 24 MCR1960	02/09/2013
		MP review under 17(1) MCR 2016	07/11/2017
		MP review under 17(1) MCR 2016	16/03/2020
		MP review under 17(1) MCR 2016	02/12/2022

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	16 Boreholes proposed during 2022-23	10 boreholes drilled	Violation issued under Rule 11(1) of MCDR, 2017
1b	Exploration over lease area for geological axis 1 or 2	Geological axis - 1.	Geological axis - 1.	Entire lease area are under G-1 category.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	20 Lakhs proposed	23 Lakhs has spent for exploration	Exploration Agencies is M/s. Geo Exploration and Mining solutions, Salem.
1d	Balance area to be explored to bring Geological axis in 1 or 2	2.46 ha	1.10 ha	Entire area has been explored under G-1 category with 200m X 200m grid interval.
1e	Balance reserve as on 01/04/20	11.52 million tons as per the MMP approved on 02.02.2022 for the proposed period from 2021-22 to 2022-23	378631tons as per the 2022-23 annual return.	Cement Grade Limestone.
1f	General remarks of inspecting officers on geology, exploration etc	It is belongs to Archaean age.	10 boreholes has been drilled during 2022- 23. Entire area has been explored up to G1 level.	Entire ML area has been drilled and proved upto 115m

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Working proposed between the Section lines BB' to FF' during 2022-23.	Development is not carried out as per proposal. Worked between the Section lines AA' to CC' during 2022-23.	Violation issued under Rule 11(1) of MCDR, 2017.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches have been proposed.	Four bench in OB & eight benches in Ore.	Nil

2c	Stripping ratio or ore to OB ratio	1 : 0.5	1 : 0.2	The deviation is due to lesser development during 2022-23.
2d	Quantity of topsoil generation in m3	No Proposal	Nil	Nil
2e	Quantity of overburden generation in m3	145950 tons of OB has been proposed	31295 tons of OB has been achieved.	Violation issued under Rule 11(1) of MCDR, 2017.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Nil	The Production & Development have lapsing behind the proposal during the year 2022-23 for which violation has been pointed out under Rule 11(1) of MCDR, 2017.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single Pit	Single Pit	Nil
3b	Quantity of ROM mineral production proposed	535300 tons	378631 tons	Violation issued under Rule 11(1) of MCDR, 2017.
3c	Recovery of sailable/usable mineral from ROM production	85% Recovery	83% Recovery	Lesser recovery is due to lithological disturbances in the area. Due to less developmental activities in the mine.
3d	Quantity of mineral reject generation	80295 tons	62590 tons	Nil
3e	Grade of mineral rejects generation and threshold value declared.	Silica more than 18%	Silica more than 18%	Nil
3f	Quantity of sub grade mineral generation.	No Proposal	Not generated	Not Applicable
3g	Grade of sub grade mineral generation	No Proposal	Nil	Not Applicable

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method	Mechanised method	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not applicable	No beneficiation is carried out	Not applicable
3j	Provision of drilling and blasting in mineral benches	Drilling & Blasting are proposed.	Drilling & Blasting being done	Nil
3k	Provision of mining machineries in mineral benches	Excavator, Backhoe, Tippers, Rock Breakers Dozer	As proposed the machineries are deployed.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height - 10m and width 12 m	Bench height -10m and width 12 m	Nil
3m	Total area covered under excavation/pits	23.354 ha	23.354 ha	Due to working in same area with vertical extension.
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.5	1 : 0.2	The deviation is due to lesser development. Violation issued under Rule 11(1) of MCDR, 2017.
3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2023. Mines = 23.354 hect Dump = 3.393 hect	Land use Pattern as on 01.04.2023. Mines = 23.354 hect Dump = 3.393 hect	Nil

3p	Production of ROM mineral during the last five year period as applicable	2022-2023 = 535300 tons 2021-2022 = 207625 tons 2020-2021 = 443376 tons 2019-2020 = 449162 tons 2018-2019 = 448455 tons	2022-2023 = 378631 tons 2021-2022 = 211274 tons 2020-2021 = Nil 2019-2020 = Nil 2018-2019 = Nil	Less limestone production due to less plant requirement.
3q	General remarks of inspecting officers on method of mining etc.	Nil	Mining operation is being done by opencast mechanised means.	Nil

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Dump proposed for OB & mineral rejects	Dumping done as per proposal	Nil
4b	Location of topsoil, OB and mineral reject dumps	N-973720-97295/ E-793915-793925	N-973720-97295/ E-793915-793925	Nil
4c	Number of dumps within lease area and outside of lease area	Lease area = 3	Lease area = 3	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	Nil
4e	Number of active and alive dumps.	No Proposal	Nil	Nil
4f	Number of dead dumps.	No Proposal	Nil	Nil
4g	Number of dumps established.	No Proposal	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposal	Nil	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	Nil	Existing old dumps are present for Topsoil, OB & Mineral Rejects	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.	No Backfilling has been proposed.	No backfill done	Nil
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.	Nil	No backfill done	Nil

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	PMCP report for the year 2022-23 has been submitted
6b	Area available for rehabilitation (ha) .	Nil	Nil	Nil

6c	afforestation done (ha).	0.63 ha	0.56 ha	Nil
6d	No. of saplings planted during the year	1260 nos	1125 nos	Violation issued under Rule 11(1) of MCDR, 2017.
6e	Cumulative no .of plants	2500 nos for 2021-22 to 2022-23	1375 nos from 2021-22 to 2022-23	Nil
6f	Any other method of rehabilitation	Afforestation	Afforestation	Nil
6g	Cost incurred on watch and care during the year	1.50 lakhs	1.50 lakhs	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposal	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No Proposal	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Proposal	Nil	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Proposal	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Proposal	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Periodical monitoring.	Environmental parameters are within limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Nil	PMCP proposals have been complied.	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	535300 tons	378631 tons	Violation issued under Rule 11(1) of MCDR, 2017.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised method	Mechanised method	Nil
7c	Different grade of mineral sorted out at mines.	Cement grade Limestone	Cement grade Limestone	Nil
7d	Any beneficiation process at mines	No Proposal	No processing of mineral is involved.	Not applicable
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Nil	Achieved ROM Production is 378631 tons during 2022- 2023 against proposal of 535300 tons.	Nil

 Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	No Topsoil generation	Nil
8b	Concurrent use or storage of topsoil	No Proposal	No Topsoil generation	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dump proposed for OB & mineral rejects	Dumping done as per proposal	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Dump proposed for OB & mineral rejects	Dumping done as per proposal	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Backfilling has been proposed.	No backfill done	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1260 saplings proposed.	1125 saplings planted.	Violation issued under Rule 11(1) of MCDR, 2017.
8g	Survival rate	No Such proposal in document	88%	Nil
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling	Water Sprinkling is being done on roads to control airborne dust.	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Nil	Plantation in systematic practice.	Nil
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Submitted	Returns are submitted within time limit.	Both Annual & Monthly returns are submitted in online.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager, Geologist & mining engineer are appointed.	During inspection Mining Engineer, Geologist is present.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings 23.354ha; Used for waste disposal 3.393ha; Occupied by plant, buildings, residential, welfare buildings & roads-1.353ha; Other Purpose (Green Belt , Safety Zone & Others)- 2.990ha;	Furnished under part- I.	Nil
9d	Scrutiny of Annual return on afforestation	1125 saplings	Furnished under part-V.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	31295 cu.m of OB & mineral reject	Furnished in part- V, of 4	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	378631 tons	Furnished in part- VI	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production is Rs.460/-	Furnished in part- VII	Nil
9h	Scrutiny of Annual return on fixed assets	Rs.21100574/-	Furnished in part- II-A	Nil
9k	Scrutiny of Annual return on mining machineries	Backhoe, Front end Loader, Tipper, Water Tanker	Furnished in part- V sec 6	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)	13/09/2023			
MCDR17	Rule 33	13/09/2023			

Date :

(G.C.Sethi)

Indian Bureau of Mines