

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/125/BNG

Mine code : 30KAR03013

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 13/11/2018
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ZEENATH M.L.2121**
- (b) **Registration NO.** : **IBM/1010/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **RAMGAD**
- Taluka : **SANDUR**
- Post office : **SUSHILANAGAR**
- Pin Code : **583119**
- FAX No. : **08392-240462 (F)**
- E-mail : **ca.padmaraj@gmail.com,ztco:**
- Phone : **08392-240085 (O),984408500**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **05/10/1996**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **SRI.SYED AHMAD, MANAGING PARTNER**
24, Zeenath House, COWL BAZAR, BELLARY,
PIN - 583102
3. (a) **Lease Number** : **KAR0262**
- (b) **Lease area** : **36.42**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **03/06/2021**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : ZEENATH TRANSPORT COMPANY
 ZEENATH HOUSE, COWL BAZAAR,
 BELLARY, BELLARY KARNATAKA
 Phone:40462,40085
 FAX :

Owner : Syed Ahmed
 Zeenath Transport Company
 24, Zeenath House, Cowl
 Bazar Ballery BELLARY
 KARNATAKA
 Phone: 08392240085
 FAX : 08392240462

Agent : Syed Aslam
 Zeenath Transport Company
 Zeenath House, Cowl Bazar
 Bellary BELLARY KARNATAKA
 Phone: 08392240085
 FAX : 08392240462

Mining Engineer

Name : SALEEM SYED,Full Time
 Qualification : BE Mining
 Appointment/ : 24/07/2017
 Termination date

Geologist

Name : MOHAN KUMAR S,Full Time
 Qualification : MSc Geology
 Appointment/ : 16/11/2017
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	23/10/1989
Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	15/11/1996
	:	Mining Scheme rule 12 MCDR1988	27/11/2002
	:	Mining Scheme rule 12 MCDR1988	22/06/2006
	:	Modif.of approved Mining Plan	13/05/2016
	:	Modif.of approved Mining Plan	09/06/2016
	:	MP modif under 17(3) MCR 2016	08/11/2017
	:	FMCP under 23C(1)	04/06/2018
	:	MP modif under 17(3) MCR 2016	02/07/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	6 number of diamond core Boreholes and 341 mtrs proposed.	6 No's Diamond core Borehole drilled of 236 meters.	Cumulative 1344 mtrs of Diamond core Bore hole drilled
1b	Exploration over lease area for geological axis 1 or 2	No proposal	G1- 8.00 Ha G2- 3.65 Ha	MP modified on 8/11/2017
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Through M/s MAPP Drilling & Exploration Pvt Ltd Rs. 48,20,027/-	Total amount include Drilling and Analysis.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Entire mineralized area under G-1 & G-2	G1- 8.00 Ha so far. Remaining area exploration proposed in 2018-19	Exploratory drilling in progress
1e	Balance reserve as on 01/04/20		As on 1.04. 2018,4765805 Tons	As per the Annual returns.
1f	General remarks of inspecting officers on geology, exploration etc			6 No's Diamond core Borehole drilled of 236 meters covering 8 Ha under G-1 & 3.65 Ha under G-2. Exploration proposed in 2018-19

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Location of development proposed: N 1674612 to 1674834 & E 655223 to 655406	N 1674612 to 1674800 E 655223 to 655406	As per the modified RMP dt 02.07.2018 development has not been carried out in between section lines E-E' to H-H'.Violation pointed out
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	separately Benches in OB and Mineral proposed	Separate Benches maintained in OB and mineral as per proposal.	No top soil.

2c	Stripping ratio or ore to OB ratio	1:0.61	1 : 0.69	Approved Modification in the RMP dt 8/11/2017
2d	Quantity of topsoil generation in m3	No proposal	Nil	Work done within broken up area
2e	Quantity of overburden generation in m3	1,10,212 MT	1,23,347 MT	Approved Modification in the RMP dt 8/11/2017
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			As per the modified RMP dt 02.07.2018 development has not been carried out in between section lines E-E' to H-H'. Violation pointed out

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	Worked as per the proposed.
3b	Quantity of ROM mineral production proposed	1,80,000 MT	1,79,700 MT	ROM production achieved with in proposal limit.
3c	Recovery of sailable/usable mineral from ROM production	100%	99.83%	No significant change
3d	Quantity of mineral reject generation	No Proposal	NA	-
3e	Grade of mineral rejects generation and threshold value declared.	+45% Fe will be utilized	+45% Fe ore are being utilized	-
3f	Quantity of sub grade mineral generation.	No Proposal	NA	-
3g	Grade of sub grade mineral generation	No Proposal	NA	-

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed	Mechanized method adopted	Mobile Crushing /Screening plant with 150 TPH is used to segregate ROM
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not such Proposals	Nil	-
3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & blasting proposed	Deep hole drilling & blasting done	Atlas copco XAH 210 Model compressor and Wagon drill Atlass copco BMM 35K 157- 00, with 110 dia
3k	Provision of mining machineries in mineral benches	Excavators & tipper combinations	Machineries are deployed as per the proposal.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height 6 to 8 mtrs Width 7 to 10 mtrs	Height 7 mtrs Width 8.00 mtrs	Working of bench within the limits of proposal.
3m	Total area covered under excavation/pits	20.97 Ha	20.97 Ha	Excavation of pit within the proposed dimension.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.77	1 : 0.70	Stripping ratio within the proposed limit.
3o	Total area put in use under different heads at the end of year	Area for Mining-20.97Ha Area for waste dumps-14.00 Ha (Active dump- 6.38 Ha Inactive dump - 7.62 Ha) Mineral stack- 1.50 Ha Roads 2.35 Area for Temporary sheds 1.33 Ha Safety Zone- 0.641 Ha Area for future Mining activities--- 2.79Ha	As per proposal	Area within the proposed limit.

3p	Production of ROM mineral during the last five year period as applicable	2013-14: Nil 2014-15: Nil 2015-16: 1,20,000 2016-17: 1,80,000 2017-18: 1,80,000 (in tonnes)	2013-14: Nil 2014-15: Nil 2015-16: 1,19,500 2016-17: 1,49,820 2017-18: 1,79,700 (in tonnes)	Actual production within the proposed limits.
3q	General remarks of inspecting officers on method of mining etc.			Mining operations are being carried out as per modified MP.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of OB proposed	Dumping carried out as per proposals	OB dumped in AD-2
4b	Location of topsoil, OB and mineral reject dumps	AD-2 dump(N 1674859 to 1674947 E 655728 to 655857)	Dumping in AD-2 dump within the proposed grids	-
4c	Number of dumps within lease area and outside of lease area	7 nos of dumps with ML	7 nos of dumps with ML	Active and Inactive dumps are present with in lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Location of the dumps proposed outside the UPL	The dumps are located outside the UPL	-
4e	Number of active and alive dumps.	2	2	-
4f	Number of dead dumps.	5	5	-
4g	Number of dumps established.	5	5	Stabilized with plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & garland drain proposed all along dumps	Retaining wall & garland drain were made all along the dumps	GD and RW's are constructed as per the R & R Plan.

4i	Length of Retaining wall or garland drain all along dumps	GD 68mX1.5mX1m RW 17mX2mX2m	GD 68mX1mX1m RW 17mX2mX1m	RW made in compliance to the previous violation
4j	Number of settling ponds	No proposal	Nil	SST-1 constructed in previous year.
4k	Specific comments of inspecting officer on waste dump management			Waste dump management is carried out as per the modified MP

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 proposal	Nil	-
5b	Area under backfilling of mined out area	No proposal	Nil	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral 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.			Existing pits are not matured for backfilling as the ores are not exhausted.

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 on 09.05.2018	-

6b	Area available for rehabilitation (ha) .	9.77Ha	9.77Ha	-
6c	afforestation done (ha).	0.5 Ha	0.5 Ha	-
6d	No. of saplings planted during the year	500 saplings	1020 saplings	-
6e	Cumulative no .of plants	1,82,160 Nos	1,82,160 Nos	-
6f	Any other method of rehabilitation	Nil	NA	-
6g	Cost incurred on watch and care during the year	No proposal	nil	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Nil	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal	Nil	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil	-
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil	-

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Green belt + Inactive Dump) 0.641 Ha+4.24 Ha =4.881	Gap filling done at inactive dump.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	nil	-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring proposed in 4 buffer zone and 2 core zone location.	Environment monitoring done in core & buffer zone	Parameters with the limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The lessee had carried out the PMCP activities as per proposal.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	1,80,000 Tones ROM	Lumps-53,300 MT Fines- 1,26,400MT Total- 1,79,700MT	Grade wise mineral is stacked separately
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical sorting proposed	Mechanical sorting done using 150 TPH dry crushing & screening Plant	-
7c	Different grade of mineral sorted out at mines.	58 to 65 %Fe	55-58% Fe 58-60% Fe 60-62% Fe 62-65% Fe +65% Fe	-

7d	Any beneficiation process at mines	No proposal	NA	Only dry screen and crusher plant
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mechanical sorting done using 150 TPH dry crushing & screening Plant with 58 to 65 %Fe.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	Mining within broken up area
8b	Concurrent use or storage of topsoil	No proposal	NA	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal made for separate OB/waste. No mineral reject.	Waste generated is dumped on existing active dump-AD-2.	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Inactive dumps proposed to be stabilized by afforestation & other protective measures viz. toe wall & garland drains	Carried out as per proposal	Inactive dump - 7.62 Ha, Active dump-6.38 Ha
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	7.62 Ha of dump is stabilized by afforestation	-

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	WML- 500 saplings	WML :1020 saplings, OML :900 saplings	WML -Gap filling OML-Avenue plantation in Ramgada village road
8g	Survival rate	70%	75%	-
8h	Water sprinkling on roads to control airborne dust	Proposed water sprinkling on roads to control airborne dust	Water sprinkling arrangement was done to control air borne dust suppression in haulage road.	Total 5 water tankers are engaged to water spray with 12,000 Ltrs capacity.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mine is satisfactory as the lessee had carried out environmental protective and safety measures as per approved MP

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. Submitted up to October 2018 A.R. Submitted up to 2017-18	A.R Submitted on 29.06.2018
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager T. Nikil Steevenson Mining Engineer S. Saleem Geologist S. Mohan Kumar	Mines Manager- A.Gururaj Mining Engineer- T Varaprasad Geologist- Lohith Kumar DR	Notice of appointment and termination received
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area for Mining- 20.97Ha, Area for waste dumps-14.00 Ha, Infrastructure - 3.68 Ha, other purpose- 4.93 Ha, Work done under PMCP-2.3 Ha	Appears to be correct	

9d	Scrutiny of Annual return on afforestation	WML: 1020@75% survival OML :900@75% survival	Appears to be correct
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: OB- 512 Tons, Production: 1,79,700 Tons, CB- 512 Tons Dump workings- 27854.98 Tons	Appears to be correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value 4,122.646 Rs/ton Ex.mine price 3,455, Rs/ton Production cost-705.42 Rs/ton	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	44,13,890/- Rs	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Wheel Loader-1 no, Back Hoe- 2 no. Tipper -6 No.	Appears to be correct

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)	06/12/2018			
MCDR17	Rule 19(1)	06/12/2018			

Date :**(ARUN KUMAR)**

Indian Bureau of Mines