

**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 : Shri,G. Pompapathi-Manager ,Shri.Manjunath -Asst Min  
Official with  
Designation
- (iv) Date of Inspection : 29/08/2019
- (v) Prev.inspection date : 13/11/2018

**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 : T. Varaprasad, Full Time  
 Qualification : B.E.MINING  
 Appointment/ : 21/05/2018  
 Termination date

## Geologist

Name : S. Srinivas, Full Time  
 Qualification : M. Sc. (Geology)  
 Appointment/ : 21/01/2019  
 Termination date

## Manager

Name : G. Pompapathai  
 Qualification : FCC  
 Appointment/ : 14/12/2018  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	23/10/1989
		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	9 Core drilling	9 Core drilling + 6 DTH drilling	15 Holes drilled with a meterage of 1013 mtrs.No backlog
1b	Exploration over lease area for geological axis 1 or 2	G1 & G2	G1 8.00 Ha G2 3.65 Ha	11.65 Ha is mineralized area. Exploration carried out for depth persistence.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Core drilling: M/s Geotech Exploration DTH Drilling : Sri Balaji Borewells Total Expenditure :Rs.12,68,286.00	Exploratory drilling carried out by M/s Geotech Exploratio, Nagpur & Sri Balaji Borewells, Sandur
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Nil	-
1e	Balance reserve as on 01/04/20		4708579 Tons	As per Annual Returns 2018-19
1f	General remarks of inspecting officers on geology, exploration etc			So far 40 No. of Core & DTH bore holes has been drilled in the ML area, total meterage 2356 mtrs

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1674548 to N1674891, E656044 to E656453	N1674540 to N1674870, E656040 to E655870	Work carried out in A2-A2', B-B' to H-H' sections
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for OB and mineral proposed	Separate benches for OB and mineral maintained	OB-11 benches & Ore-6 benches
2c	Stripping ratio or ore to OB ratio	1 : 0.47	1 : 0.47	No change

2d	Quantity of topsoil generation in m3	No proposal	Nil	No generation of top soil, as mining carried out in already broken up area.
2e	Quantity of overburden generation in m3	85065 tons	84665 tons	Bulk density : Iron ore - 3 tons/Cu.mtr BHQ -2.6 tons/Cu.mtr Waste - 2.0 tons/Cu.mtr
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No deviation with respect to development was observed during the course of inspection

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit	Working carried out in Single pit	App. Dimension = 650mtr(L) x 180 mtrs (W) x 110 Mtrs depth
3b	Quantity of ROM mineral production proposed	1,80,000 TONS	1,79,920 TONS	No change
3c	Recovery of sailable/usable mineral from ROM production	90% recovery proposed	90 % recovery achieved	Nil
3d	Quantity of mineral reject generation	No proposal	Nil	No generation of mineral reject
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	Nil
3f	Quantity of sub grade mineral generation.	No proposal	Nil	No sub grade mineral generated
3g	Grade of sub grade mineral generation	No proposal	Not applicable	Nil

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregation of ROM	Mechanized method adopted for segregation of ROM	One unit of Dry crushing & screening (150TPH) deployed
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposals	Not applicable	No wet beneficiation carried except crushing & screening of ROM
3j	Provision of drilling and blasting in mineral benches	Provision made for drilling and blasting	Drilling & blasting is carried out in hard strata. Slurry explosive in combination with D-cord & Nonel detonators	30 % of the total material handled is drilled & blasted
3k	Provision of mining machineries in mineral benches	Proposed mining machineries in mineral benches Excavator -2 Nos. Wheel loader - 1 Nos. Drill - 1 Nos. Tipper - 6 Nos. Crusher & Screen - 1 Nos	Following mining machineries used : Excavator -2 Nos. Wheel loader - 1 Nos. Drill - 1 Nos. Tipper - 6 Nos. Crusher & Screen - 1 Nos.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed bench Height-6 to 8 mt Width- 7.0 - 10mt	Height= 7.0 mt (Avg.) Width=7- 8 mt	nil
3m	Total area covered under excavation/pits	20.97 Ha at the end of plan period 2019-20	Actual 20.97 Ha	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.47	1 : 0.47	No change

3o	Total area put in use under different heads at the end of year	Area for Mining-20.97Ha Waste dumps- 14.00 Ha Mineral stack- 0.40 Ha Roads - 2.35 Infrastructure s- 0.369 Ha Safety Zone- 0.641 Ha Future Mining - 2.79Ha	Area under Mining - 20.97 Ha , Dumping- 14.0 Ha Infrastructure - 3.68 Ha Work done under PMCP - 4.5 Ha Others - 4.93 Ha (Stock yard & Green Belt)	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15: NIL 2015-16: 1,20,000 2016-17: 1,80,000 2017-18: 1,80,000 2018-19: 1,80,000	2014-15: NIL 2015-16: 1,19,500 2016-17: 1,49,820 2017-18: 1,79,700 2018-19: 1,79,920	All units in tons. Actual production is within in the proposed limits.
3q	General remarks of inspecting officers on method of mining etc.			Mining operations carried out as as per approved modified MP

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate waste dump proposed	Separate waste dump maintained	No generation of top soil and mineral rejects.
4b	Location of topsoil, OB and mineral reject dumps	OB dump: N 1674894 - 16674967, E 655728 - 655894	OB dump (AD-2) : N 1674880 -16674870, E 655726 - 655870	Nil
4c	Number of dumps within lease area and outside of lease area	Inside Mining lease- 07 dumps Out side Mining - NIL	Inside Mining lease- Active Dump AD-1 & AD2 In Active Dump ID 1 to ID5 Out side Mining - NIL	Two active dump and Five inactive dump within ML
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Waste dump proposed out the UPL	Waste dump is located at about 40 mtrs away from the UPL	Both dumps are located out side the UPL

4e	Number of active and alive dumps.	One active dump proposed	One active dump maintained	Towards North Westren side of the ML
4f	Number of dead dumps.	Five dead dump	Five dead dump	Nil
4g	Number of dumps established.	Five dead dump	Five dead dump stabilized	Dead dump stabilized by plantation
4h	Whether Retaining wall or garland drain all along dumps are there.	RW & GD proposed as per the approved R & R plan	RW & GD maintained as per the approved R & R plan	Nil
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	1015 mtrs of R W and 2060 mtrs GD constructed in the previous years
4j	Number of settling ponds	No proposals	One Settling tank constructed in the previous years.	Condition is Good & Effective
4k	Specific comments of inspecting officer on waste dump management			Waste dump management is carried out as per the approved document

#### 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	Not applicable	Mineral is not exhausted
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	No top soil generated
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	Nil

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Mined out pit is not matured for back filling and converting into water reservoir
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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).	Annual report on PMCP to be submitted on 1st July every year.	Submitted vide letter dated 07.06.2019	
6b	Area available for rehabilitation (ha) .	9.77Ha	Plantation done on 9.77Ha of existing dumps	Nil
6c	afforestation done (ha).	Inactive dump -0.5 Ha Avenue=0.75 Ha	Gap filling done on the slope of the inactive dump	1.25 ha covered
6d	No. of saplings planted during the year	Inactive dump= 500 saplings Avenue=750 saplings	Inactive dump: 700 saplings Avenue=955 saplings	Safety zone= 200 saplings, Total = 1855 saplings
6e	Cumulative no .of plants	Not specified	With in the ML :Agave - 12000 Nos. Saplins - 37561	8.261 Ha covered within ML area
6f	Any other method of rehabilitation	No proposal	Nil	Nil
6g	Cost incurred on watch and care during the year	Rs. 125000.00 proposed	Rs. 3,71,000.00 spent	spent towards plantation, watering, forest fire line management and after care
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal	Nil	Ore is not exhausted & pit is not matured for backfilling



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 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)	Environmental monitoring proposed in core zone & buffer zone	Environmental monitoring carried out for air, water, noise & soil in core zone & buffer zone on monthly basis	Environmental monitoring is carried out by Casmo Conscious Research Laboratory, Bellary

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	PMCP activities were carried out as per the approved document
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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatched after crushing and screening as per proposed	ROM dispatched after crushing and screening as per proposal	Lumps-65471.60 Tons, Fines-102400.00 tons Total=167871.60
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed for mineral sorting	Mechanical method adopted by dry crushing & screening	1units of dry crushing & screening plants
7c	Different grade of mineral sorted out at mines.	0-55%, +55-58%, 58-60%, 60-62%, 62-65%, +65% Fe	62-65% & +65% Fe are graded and dispatched.	Nil
7d	Any beneficiation process at mines	No proposal	Nil	Only Dry process by mobile crusher & screening
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No deviation with respect to mineral conservation was observed during course of MCDR inspection.

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	No top soil generated during FY 2018-19
8b	Concurrent use or storage of topsoil	No proposal	Nil	-

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed separate dump for waste /OB.	Separate dump for waste /OB maintained	The active dump having height 10 mtrs .
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Ore is not exhausted to restore the land.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Mined out pit was not matured for back filling	7.62 Ha of inactive dump (ID-1 to 5) is stabilized by afforestation with protective measures Viz., toe wall, Garland drains and silt settling tanks
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1450 No. of saplings proposed	1855 saplings planted inside ML area	So far 255138 saplings planted on old dumps and 49561 Saplings planted in safety zone area
8g	Survival rate	75%	75%	nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on roads to control airborne dust	Water sprinkling was done regularly on roads to control airborne dust	1 Water tankers each of 12 KL deployed
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mine was good as lessee has carried out afforestation, water sprinkling and other environmental protective measures as per RMP

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**Compliance of Rule 45:**


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Sl.No.	Item	Proposals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly Returns submitted up to July 2019 Annual Returns submitted up to 2018-2019	Annual Returns submitted on 27.6.2019
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri. G. Pompapathi - Manager Sri. T. Varaprasad - Mining Engineer Sri. S. Srinivas - Geologist	In place of Sri. T. Varaprasad, Sri. Manjunatha is working as Mining Engineer
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Mining - 20.97 Ha , Dumping- 14.0 Ha Infrastructure - 3.68 Ha Work done under PMCP - 4.5 Ha Others - 4.93 Ha (Stock yard & Green Belt)	Appears to be correct
9d	Scrutiny of Annual return on afforestation	Within lease area= 800 saplings Outside lease Area = 955 saplings @ 75% survival rate	Appears to be correct
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	No generation of mineral reject

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM : O/s - 512.00Tons, production 179920 tons, C/s -512.00 tons Dump working:O/s - 27854.98Tons, production -0 tons, C/s - 27854.98tons	Appears to be correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production =Rs.810.75/ton , Sale value & Ex. Mine price =Rs.3316/ton	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	Rs.3751806.00 including plant machinery and transport equipment	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Excavators - 2Nos. Wheel Loader - 1 Nos. Tippers - 6 Nos. Water tanker - 1 Nos. Crusher - 1 Nos	Appears to be correct

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**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)	11/09/2019			
MCDR17	Rule 33	11/09/2019			

**Date :**

**(ARUN KUMAR)**

Indian Bureau of Mines