INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR inspection REPORT

Bangalore regional office

	Mine :	file No : KNT/BLR/FE/	455,	/BNG		Mine	e code	: 30KAR03160
	(i)	Name of the Inspecting Officer and ID No.	r :	J103) V	. JAYAKRISHN	NA BABU		
	(ii)	Designation	:	Regional C	ontroller Mi	ines		
	(iii)	Accompaning mine Official with Designation	:	J.Srikanth	-Manager,D.	.Srinivas	-Asst M	ines Manger,Vee
	(iv)	Date of Inspection	:	28/09/2021				
	(v)	Prev.inspection date	:	03/03/2020				
		PA	RT-	I : GENER	AL INFORMAT	ION		
1.	(a)	Mine Name	:	RAMGAD ML	2547			
	(b)	Registration NO.	:	IBM/1010/2	011			
	(c) (d) (e) (f) (g) (h)	Category Type of Working Postal address State District Village Taluka Post office Pin Code FAX No. E-mail Phone Police Station First opening date Weekly day of rest		A Fully Me Opencast KARNATAKA BELLARY RAMGHAD PO SANDUR 08392-240 2tco2000@3 08392-2400 SANDUR 01/01/2008 SUN	chanised DST 0462 (F), 7ahoo.com 085 (O),9844	08500.		
2.	Addre	ess for espondance	:	M/S.ZEENAT 24, ZEENAT BELLARY -	H TRANSPORT H HOUSE,COWI 583102	COMPANY, BAZAR,		
3.	(a) (b) (c) (d)	Lease Number Lease area Period of lease Date of Expiry	:	KAR0262 36.42 20 03/06/2021				
4.	Mine	ral worked	:	IRON ORE		Main		

ee : c : ogist	ZEENATH TRANSPORT COMPANY ZEENATH HOUSE, COWL BAZAAR, BELLARY, BELLARY KARNATAKA Phone:40462,40085 FAX : SYED AHMED BELLARY KARNATAKA Phone: 08392 - 260225 FAX : 08392- 240462
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:	Veeresh Kumar K.J,Full Time
ification :	M.Sc Geology
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:	J.SHRIKANT
ification :	FCC
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б.	Date of approval of Mining	:	Fresh under rule 22 MCR1960	06/04/2004
	Plan/Scheme of Mining		Modif.of approved Mining Plan	02/04/2008
			Modif.approved Mining Scheme	12/08/2010
			Mining Scheme rule 12 MCDR1988	06/12/2012
			MS modif under MCR 1960	21/08/2014
			Modif.of approved Mining Plan	09/06/2016
			MP review under 17(1) MCR 2016	08/11/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
la	Backlog of previous year	No Proposal	NIL	So far 55 Coredrillholes & 8 DTH holes are drilled in the ML area, total meterage 2830.3 mtrs
1b	Exploration over lease area for geological axis 1 or 2	G1 L	G1: 28.00 Ha.	NIL
lc	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Not applicable	Exploratory drilling carried out by M/s MAPP drilling and exploration in the past. Approximately 13.72 lakhs spent on exploration.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	So far 55 core drill holes & 8 DTH holes are drilled in the ML area with total meterage of 2830.3mtrs.
1e	Balance reserve as on 01/04/20		7.21 MT 57.46 % Fe	As per Annual Returns 2020-21
lf	General remarks of inspecting officers on geology, exploration etc			

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1667619 TO N1667892 E660908 TO E661164. N1667619 TO 1667892 E660908 TO 661164	N1667622 TO N1667890 E660911 TO E661161, N1667620 TO 1667890 E660908 TO 661161	Work carried out in D, G ,K, Kl, L, Ll& M sections. Marginal deviation in development observed and violation issued.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for OB and mineral proposed	Separate benches for OB and mineral maintained	All 9benches contain OB & ore
2c	Stripping ratio or ore to OB ratio	1 : 0.19	1 : 0.19	Ratio is in Tons
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	92015Tonnes	91900Tonnes	Bulk density: Iron ore - 2.7 tons/Cu.mtr Lateritic Lumpy - 2.7 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			Development of the pit was carried out as per the approved proposals with marginal extension between M-M' & N-N' sections and violation is issued.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit N 1668404 - 1667668 E 660340 - 661221	Working carried out in Single pit	1108 L X 107 W X65.5 D
3b	Quantity of ROM mineral production proposed	4,80,000 TONS	4,80,000 TONS	NIL

3c	Recovery of sailable/usable mineral from ROM production	95 %from Iron Ore zone 90 % from lateritic lumpy ore recovery proposed	95 %from Iron Ore zone 90 % from lateritic lumpy ore	NIL
3d	Quantity of mineral reject generation	No proposal	NIL	During the plan period, there is no mineral rejects generation from this Mine.
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	NIL	NIL
3f	Quantity of sub grade mineral generation.	No proposal	NIL	There is no Sub- grade generation from this Mine.
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	Dry crushing & screening.
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 dry crushing & screening of ROM.
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting proposed	Drilling & blasting carried out for hard strata.	60 % of the total material handled is drilled & blasted using Slurry &Decord.(31)

3k	Provision of mining machineries in mineral benches	Proposed mining machineries in mineral benches Volvo Excavator 247 Hp -2. Volvo Excavator 205 Hp -1. Rock Breaker - 1 Volvo Front Loader,243 HP - 2. Tractor Mounted Compressor 47 HP - 1 Portable Compressor,180 HP - 1. Jack hammer - 1. Wagon Drill BVB 25 - 1 Leyland Tippers 2516 - 15. Tippers 1612 - 1. Bolero, Camper & Jeep - 3. HSD Tanker - 1. Water Tanker 1613 - 4. Workshop Air Compressor - 1. 1109 Staff Bus - 1. 709 Staff bus - 1.	<pre>1. Back Hoe 2.20 cum - 2 2. Wheel Loader 3.00 cum - 2 3. Tipper 8.00 cum - 15 4. Water Tanker 12000.00 Ltr - 4 5. Generator (Diesel) 50KWH - 1 6.Generator (Diesel) 30KWH - 1 7. Generator (Diesel) 6KWH - 1 8. Air Compressor 250cum/MN - 1 9. Jeep/Tractor 47.00 HP - 2 10. Crusher 100.00 T/H - 2 11. Conveyor (Elect) 150T/H - 2 12. Back Hoe 1.600 cum - 1</pre>	No change
31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed bench Height- 7.5 m Width-8.0 - 10mt	Height= 7.5 mt (Avg.) Width=8.0 mt	Few Bench height between M-M' & N- N' sections were observed to be higher than the proposed height. Violation issued.
3m	Total area covered under excavation/pits	16.0Ha. at the end of plan period 2020-21	Actual 16.00 Ha (by the end of 2020-21)	NIL

3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.19	1 : 0.19	Ratio is in Tons
30	Total area put in use under different heads at the end of year	Area under Mining - 16.0 Ha , Dumping- 7.0 Ha Sub grade Mineral/ore dump - 7.35 Ha Infrastructure - 2.65 Ha Green Belt - 3.55 Ha Protective measures - 1.607 Ha Others - 11.573 Ha	Covered under current (O/C) workings -16.00Ha , Used for waste Disposal - 7.00 Ha. Occupied by plant,buildings,resident ial,welfare buildings & Roads - 2.65 Other purpose (Stock yard, green belt, environment production work - 24.08	NIL
đξ	Production of ROM mineral during the last five year period as applicable	2016-17: 4,60,000 2017-18: 4,80,000 2018-19: 4,80,000 2019-20: 4,80,000 2020-21: 4,80,000	2016-17: 4,59,700 2017-18: 4,79,700 2018-19: 4,79,820 2019-20: 4,80,000 2020-21: 4,80,000	All units in tons. Actual production is within in the proposed limits.
3q	General remarks of inspecting officers on method of mining etc.			Working is carried in a single pit with stripping ratio of 1:0.09 with drilling & blasting & combination of excavators and tippers.

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	e Separate waste dump maintained	Separate OB Dump observed in the Mine.
4b	Location of topsoil, OB and mineral reject dumps	N 1667389- 1667555 E 661279- 661369	N 1667390-1667550 E 661282-661366	Separate OB Dump observed in the Mine.

4c	Number of dumps within lease area and outside of lease area	WML -2 Dumps OML - NIL	WML -2 Dumps OML - NIL	One active dump and one inactive dump within ML.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Active Dump: N 1667389 - 1667555 E 661279 - 661369 Inactive Dump: N 1668288 - 1668557 E 659825 - 660008	Active Dump: N 1667392 -1667554 E 661286 - 661362 Inactive Dump: N 1668260 - 1668569 E 659800- 660028	Both dumps are located outside the UPL.
4e	Number of active and alive dumps.	One active dump proposed	One active dump located in North Eastern side of the ML	NIL
4f	Number of dead dumps.	One dead dump	One dead dump located at South western side of the ML	NIL
4g	Number of dumps established.	1 dead dump	One dead dump stabilized	Dead dump stabilized by plantation & coir matting.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & garland drain proposed all along the dump in the past.	Retaining wall & garland drain maintained.	Retaining wall & Garland Drain are constructed all along the Dump.
4i	Length of Retaining wall or garland drain all along dumps	No proposal	NIL	Completed as per proposal in the past at toe of Dump RW-2679 mtrs GW - 2626mtrs(PMCP)
4j	Number of settling ponds	No proposals	Nil	6 No. of Settling tanks constructed in the past & maintained in good condition. (PMCP)

Specific comments of inspecting officer on waste dump management

4k

Waste dump management is satisfactorily done. One active dump and one inactive dump is located within the ML area and outside UPL. Retaining wall & Garland drains are constructed all along the toe of the dumps.

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 in any part of the pit.
5b	Area under backfilling of mined out area	No proposal	Not applicable	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Not applicable	NIL
5d	Total area fully reclaimed and rehabilitated	No proposal	Not applicable	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling is proposed in the current plan period and mineral persists at depth.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks

ба	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.	PMCP Report Submitted.	Submitted on 17.06.2021(PMCP)
6b	Area available for rehabilitation (ha) .	No proposal	NIL	NIL
6c	afforestation done (ha).	No proposal	Gap filling done in safety zone.	3.55 ha covered under safety zone.
6d	No. of saplings planted during the year	Safety zone= 250 saplings Dump= 250 saplings	Safety zone= 300 saplings Inactive dump= 500 saplings Total = 800 saplings	Avenue (Out side ML area) =250 saplings Total = 1050
бе	Cumulative no .of plants	Not specified	WML:Agave -131000 Saplings - 66200 Nos. Seeds - 330 Kg OML: Agave -25000 Nos. Saplings - 23390 Nos.	5.75 Ha covered within ML area.
6f	Any other method of rehabilitation	No proposal	0.3 Ha of dump slope covered with Coir matting done during 2013.	NIL
6g	Cost incurred on watch and care during the year	Rs. 12500.00	Rs. 800000	The cost includes desilting & maintenance cost of retaining wall and Silt settling tanks.
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

бj Compliance on No proposal NIL NIL reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area бk Compliance on No proposal NIL NIL reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir 61 Compliance on No proposal NIL NIL reclamation and rehabilitation by backfilling (v)any other specific means. бm Compliance of No proposal No waste land within ML No waste land in rehabilitation ML only gap of waste land filling is done in within lease Safety Zone. (i)afforestation Compliance of бn No proposal NIL NIL rehabilitation of waste land within lease (ii)Area rehabilitation (ha) Compliance of NIL 60 No proposal NIL rehabilitation of waste land within lease (iii)Method of rehabilitation Compliance of Environmental бр Environmental Environmental monitoring environmental monitoring carried out in core zone monitoring is monitoring (core proposed in & buffer zone on monthly carried out by zone and buffer core zone & Casmo Conscious basis zone) buffer zone Research Laboratory, Bellary

6q General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. PMCP activities as proposed were being carried out. Monitoring of environmental parameters is carried out regularly and readings are observed to be within the permissible limits.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed within the lease area.	ROM dispatched after crushing and screening as per proposal	2 units of dry crushing & screening plants
7b	Method of grade- wise mineral sorting i.e. manual or mechanical.	Grade wise sorting proposed Mechanically with help of Crusher & Screening plant.	Crushing & Screening process are in under process.	Screening plant - 150TPH. Crusher - 100 TPH.
7c	Different grade of mineral sorted out at mines.	0-55% 55-58% 58-60% 60-62% 62-65% +65%	0 -55 % 55-58% 58-60% 60-62% 62-65% 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			Mineral Conservation is taken care. The low grade ores are suitably blended with high grade ores and auctioned as per the market requirements.

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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 2020-21.
8b	Concurrent use or storage of topsoil	No proposal	Not applicable.	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	One active dump with 6 terraces of 10m height each is observed.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable.	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not applicable.	2.2 Ha of inactive dump (ID-1) 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)	500 No. of saplings proposed	800 saplings planted inside and outside ML area	So far 42160 saplings planted on old dumps and 24040 saplings planted in safety zone area.
8g	Survival rate	80%	80%	NIL
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on roads to control airborne dust	Water sprinkling done regularly on roads to control airborne dust	4 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

Compliance of r	lure	43.
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Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly Returns submitted up to August2021 Annual Returns submitted up to 2020-21	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri. J Srikanth - Mining Engineer cum Manager Sri. Veeresh Kumar K.J - Geologist		Verified both were present on the day of inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) workings - 16.00Ha , Used for waste Disposal -7.00 Ha. Occupied by plant,building s,residential, welfare buildings & Roads - 2.65 Other purpose (Stock yard, green belt, environment production work - 24.080		Appears to be correct.
9d	Scrutiny of Annual return on afforestation	Within lease area= 800 saplings Outside lease Area = 250 saplings @ 80% survival rate		Appears to be correct.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL		Appears to be correct.

9f Scrutiny of ROM: O/s -Annual return on 300.00Tons, ROM stock and/or production 4,80,000 tons, graded ore C/s - 300 tons Dump working 0/s = C/s = 300tons Cost of 9q Scrutiny of Annual return on Production sale value, Ex. =Rs.534 /ton, Mine price and production cost Sale value: Lumps -3429 Rs/ton, Fines-1720 Rs/ton, Ex- mine price: Lumps: Below 55 % - 2450 Rs. 55 to 58% -2835 Rs/ton. 58 to 60 % -3695 Rs/ton. 60 % to below 62 % Fe: 3656 Rs/ton, 62 % to below 65 % Fe: 4996 Rs/ton. Ex -mine price: Fines: Below 55 % - 740 Rs/ton. 55 to 58% -1755 Rs/ton., 58 to 60 % -2671 Rs/ton. 60 % to below 62 % Fe: 3045Rs/ton, 9h Scrutiny of Rs.21546120inc Annual return on luding plant machinery and fixed assets transport equipment

Appears to be correct.

DMF, NMET & Royality paid details are not accounted for calculation of cost of production, violation issued.

Appears to be correct.

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9k	Scrutiny of Annual return mining machineries	on	<pre>1. Back Hoe 2.20 cum - 2 2. Wheel Loader 3.00 cum - 2 3. Tipper 8.00 cum - 15 4. Water Tanker 12000.00 Ltr - 4 5. Generator (Diesel) 50.000 KWH - 1 6. Generator (Diesel) 30.000 KWH - 1 7. Generator (Diesel) 6.000 KWH - 1 8. Air Compressor 250.00 cum/MN - 1 9. Jeep/Tractor 47.00 HP - 2 10. Crusher 100.00 T/H - 2 11. Conveyor (Elect) 150.00 T/H - 2</pre>
			(Elect) 150.00 T/H - 2 12. Back Hoe 1.600 cum - 1

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)	12/10/2021						
MCDR17 Rule 26(2)	12/10/2021						
MCDR17 Rule 45(7)(a	; 12/10/2021						

Date :

(V. JAYAKRISHNA BABU)

Indian Bureau of Mines