

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

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/433/BNG

Mine code : 30KAR03154

- (i) Name of the Inspecting : **257**) **Prashant S Hegde**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Shri K.V. Sreedhar, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 04/02/2020
- (v) Prev.inspection date : 12/01/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **S.M.BLOCK**
- (b) **Registration NO.** : **IBM/211/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **NARAYANPURA**
- Taluka : **SANDUR**
- Post office : **NARAYANPURA**
- Pin Code : **583119**
- FAX No. : **08392-260269 (F),**
- E-mail : **mhraomines@gmail.com**
- Phone : **08392 - 260170, 260626, 93'**
- (f) **Police Station** : **Torangallu**
- (g) **First opening date** : **15/05/2006**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **MR.ARUN CHIRANIA, NOM. OWNER,M/s M.Hanumantha Ra**
H.NO 37, W.NO -17, PATEL NAGAR,Near Park
BELLARY - 583101.
3. (a) **Lease Number** : **KAR1503**
- (b) **Lease area** : **40.47**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **11/12/2025**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : M. HANUMANTHA RAO
H.No-37, W.No-17,Ground
Floor Main Road, Near Park,
Patel Nagar, Ballari
BELLARY KARNATAKA
Phone:08392-260170
FAX :08392-260269

Owner : Arun Kumar Chirania, Partner M/s M.Hanumantha Rao
H.No-37, W.No-17, Ground
Floor Main Road, Near Park
Patel Nagar, Ballari
BELLARY KARNATAKA
Phone: 08392-260170, 2
FAX : 08392-260269

Mining Engineer

Name : M V Mahesh,Full Time
Qualification : B. Tech. in Mining
Appointment/ : 30/10/2017
Termination date

Geologist

Name : C. Nagabhushana,Full Time
Qualification : M.Sc. Geology
Appointment/ : 02/11/2017
Termination date

Manager

Name : K.V.Sreedhar
Qualification : Dip. in Mining
Appointment/ : 03/08/2006
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Modif.of approved Mining Plan	31/08/2006
		Modif.of approved Mining Plan	10/01/2008
		Mining Scheme rule 12 MCDR1988	05/03/2013
		Modif.approved Mining Scheme	18/06/2014
		Mining Scheme rule 12 MCDR1988	03/03/2016
		MS modif under MCR 1960	07/09/2016
		MP modif under 17(3) MCR 2016	16/02/2018
		Modif.approved Mining Scheme	21/03/2018
		Modif.approved Mining Scheme	13/08/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	11 nos of boreholes with 550 meterage	10 nos of RC BHs with 688 meterage and 1 nos DTH BHs with 99 meterage	Subsequently modified RMP approved on 13/8/19.
1b	Exploration over lease area for geological axis 1 or 2	NA	G-1: 8.21 Ha G-2: 13.58 Ha and G-3: 2.75 Ha	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	28.25 lakhs expenditure as reported; APC Drilling & Construction Pvt. Ltd, TN	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	NA	Balance area of G-3: 2.75 Ha	Few inclined BHs shall be drilled to prove the ore body at depth by sept-2020 as per recent approved RMP dated 13/8/19.
1e	Balance reserve as on 01/04/20	----- --	5.15 million tonnes (+45 % Fe heamatitic Iron ore) 3.8 million tonnes (+15 % Fe and >2 % FeO Magnetite Iron ore)	Based on last approved modified RMP dated 13/8/2019.
1f	General remarks of inspecting officers on geology, exploration etc	-----	-----	No exploration proposals in current period of modified RMP dated 13/8/19. However, few inclined BHs shall be drilled to prove the ore body at depth by Sept-2020. Presently Production proposals for heamatitic iron ore only.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Western Pit: N1657820 to 1658100 & E680060 to 680235 Eastern Pit: N1658060 to 1658200 & E680265 to 680380	Carried out as per the proposals.	NIL
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil: Separate benches for OB & mineral.	Western Pit: 5 nos for OB and 4 nos for mineral Eastern Pit: 2 nos for OB and one nos for mineral	As per the proposals.
2c	Stripping ratio or ore to OB ratio	1: 2.62	1: 2.2	Tonnage data.
2d	Quantity of topsoil generation in m3	NIL	NIL	NIL
2e	Quantity of overburden generation in m3	188,815	158,575	BD:2 and subsequently RMP modified on 13/8/19.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-----	-----	Development is being carried out as per approved modified RMP. Corner BPs were well maintained at the time of inspection.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 nos	2 nos	NIL
3b	Quantity of ROM mineral production proposed	144,000 tonnes	143,990 tonnes	NIL
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	NIL
3d	Quantity of mineral reject generation	NIL	NIL	NIL

3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	NIL
3f	Quantity of sub grade mineral generation.	NIL	NIL	As cut-off grade of Iron ore is +45 % Fe
3g	Grade of sub grade mineral generation	NA	NA	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	Mechanised.	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals.	BMQ/BHQ samples were tested for beneficiation amenability by IMMT, Bhubaneswar	Magnetitic ore was amenable for beneficiation. Details incorporated in approved Modified RMP dated 13/8/2019.
3j	Provision of drilling and blasting in mineral benches	Yes; 115 mm dia. DTH drill with 11 m depth, blast hole spacing of 3m and 2.5 m burden.	Carried out as per the proposals.	NIL
3k	Provision of mining machineries in mineral benches	Yes, Excavators and dumpers.	Carried out as per the proposals.	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	10m bench height with 10 m width.	As per the proposals.	NIL
3m	Total area covered under excavation/pits	8.26 Ha	8.26 Ha	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1: 2.62	1: 2.20	Tonnage data.
3o	Total area put in use under different heads at the end of year	Pits: 8.26 Ha. Dumps: 8.28 Ha Road: 2 Ha	Pits: 8.26 Ha. Dumps: 8.28 Ha Road: 2 Ha	NIL

3p	Production of ROM mineral during the last five year period as applicable	2014-15: 100,000 2015-16: 100,000 2016-17: 100,000 2017-18: 100,000 2018-19: 144,000 2019-20: 144,000	2014-15: 99,900 2015-16: 100,000 2016-17: 99,990 2017-18: 99,990 2018-19: 143,990 2019-20: 41,000 (upto Dec 2019)	Unit: in tonnes
3q	General remarks of inspecting officers on method of mining etc.	-----	-----	Mining is being carried out as per approved modified RMP. Modified RMP approved on 13/8/19 due to change in (i) Reserves/resources (ii) working level and (iii) dumping location.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top-soil generation; Temporary back-filling OB wastes in western pit was proposed.	Carried out as per the proposals.	NIL
4b	Location of topsoil, OB and mineral reject dumps	No top soil generation and Temporary back-filling of OB wastes at western pit (N1657930 to 1658170 and E 680000 to 680200)	Carried out as per proposals.	NIL
4c	Number of dumps within lease area and outside of lease area	Within ML: 3 nos	Within ML: 3 nos	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Within UPL due to constrains of dumping locations	Within UPL due to constrains of dumping locations	NIL
4e	Number of active and alive dumps.	Active dumps: 1 nos	Active dumps: 1 nos	NIL

4f	Number of dead dumps.	2 nos	2 nos	NIL
4g	Number of dumps established.	2 nos	2 nos	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed as per R &R Plan.	Carried out as per the proposals.	NIL
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall: 100 m Garland Drain: 435 m	Retaining wall: 100 m Garland Drain: 450 m	As reported, cum. of around 990 m retaining wall and 1500 m garland drain constructed so far.
4j	Number of settling ponds	NIL	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management	-----	-----	(i) Dump management/temp. backfilling is being carried out as per the proposals (ii) Terracing of 10 m height and step-wise of temp. backfilling is also in progress for rectification as per already pointed V/L during last inspections dated 18/7/2019. (iii) Surface dumping proposed from year 2020-21 onwards after obtaining permission from CEC /ICFRE.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Temporary backfilling of OB wastes in western pit was proposed.	Carried out as per proposals.	NIL

5b	Area under backfilling of mined out area	3.07 Ha area to be back-filled during current plan period	1.5 Ha during year	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NIL	Temp. Back-filling only.
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	Temp. Back-filling only.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-----	-----	Temp. back-filling in part western pit is being carried out as per approved proposal due to constrains in surface dumping area. Surface dumping proposed from year 2020-21 onwards after obtaining permission from CEC /ICFRE.

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).	1st July of every year	Submitted	NIL
6b	Area available for rehabilitation (ha) .	NIL	NIL	NIL
6c	afforestation done (ha).	0.3 Ha	0.3 Ha	Dump area by gap afforestation.
6d	No. of saplings planted during the year	480 nos	100 nos	Back log of gap plantation already carried out on date of inspection.
6e	Cumulative no .of plants	6620 nos	6620 nos	As on date of inspection.

6f	Any other method of rehabilitation	NIL	NIL	NIL
6g	Cost incurred on watch and care during the year	NA	1 lakh	As reported.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Temp. back-filling in western part of pit	Temp. back-filling in western part of pit	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL	Temp. back-filling only.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on on backfilled area	NIL	NIL	Temp. back-filling
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NIL	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	800 nos	1700 nos	NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	0.5 ha in Green belt	0.5 ha in Green belt	NIL

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation on green-belt	Carried out as per proposals.	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Season-wise environmental monitoring proposed.	Season-wise environmental monitoring carried out and all parameters are within the limit.	NIL
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	----- --	-----	PMCP proposals are being implemented as per approved modified RMP.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting within ML	Grade-wise sorting within ML	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical using dry mobile crushing and screening plant (150TPH)	NIL
7c	Different grade of mineral sorted out at mines.	Different grade ore of lumps and fines with utilization of +45 % Fe	Carried out as per the proposals.	NIL
7d	Any beneficiation process at mines	None except dry crushing and screening.	None except dry crushing and screening	NIL

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	----- --		No mineral conservation aspect of hematitic iron ore and present production proposals was hematitic iron ore only. Up-grading/utilization of Magnetitic iron by beneficiation may be taken-up in future as per market condition.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil generation.	No top soil generation.	NIL
8b	Concurrent use or storage of topsoil	NA	NA	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Temp. Back-filling of OB wastes proposed in part of western pit.	Carried out as per the proposals.	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Temp. Back-filling of OB wastes proposed in part of western pit.	Temp. Back-filling of OB wastes proposed in part of western pit.	Due to constrain of space for surface dumping.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NIL	Back-filling was temp. in nature and may be re-handled in future. 4.8 Ha of dumping area covered under afforestation.

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1280 nos of saplings within ML during year 2018-19.	Plantation of 1800 nos of saplings within ML and 240 nos of saplings Outside ML carried out during year 2018-19.	NIL
8g	Survival rate	NA	60 %	NIL
8h	Water sprinkling on roads to control airborne dust	Yes	2 nos water tankers provided.	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	-----	-----	Aesthetic beauty in and around mine was good as the lessee implementing modified RMP proposals and R & R plan.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	AR 2018-19 and MRs upto Dec-2019 received as on date of inspection.	Submission of ARs and MRs were regular.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	MM: Shri. K.VENKATA SREEDHAR ME: Shri M.V.MAHESH Geologist: Shri C.NAGABUSHANA	Actual also same.	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area Covered under current (O/C) Workings: 8.26 Ha Dumps area: 8.28 Ha Road and Infra: 2.34Ha	Actual also same.	NIL
9d	Scrutiny of Annual return on afforestation	1800 nos within ML and 240 nos outside ML.	Actual also same.	NIL

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	317,150 tonnes NIL	V/L already issued on 2/8/19 during last inspection dated 18/7/2019.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock: 16,990 tonnes Below 55% Fe Lumps: 3,797 tonnes 60% to below 62% Fe Lumps: 32,062 tonnes 62% to below 65% Fe Lumps: 6700 tonnes 60% to below 62% Fe Fines: 10,062 tonnes 62% to below 65% Fe Fines: 6,000 tonnes	Actual reported to same at time . NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price: 60% to below 62% Fe Lumps: Rs 1,963 per tonne 60% to below 62% Fe Fines: Rs 1,881per tonne Cost of production: Rs 1088 per tonne	Actual also same after rectification of Violation pointed out during last inspection dated 18/7/19 regarding non-matching of ex-mine price. NIL
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in Rs) 2,97,71,059	Actual also appear to be same. NIL

9k	Scrutiny of Annual return on mining machineries	BACK HOE(0.9 CUM):1nos BACK HOE(1.9 CUM):1 nos BACK HOE(1.4 CUM):2 nos BACK HOE(1.2 CUM):1 nos WHEEL LOADER(2.5 CUM):3 nos TIPPER (16 CUM): 3 nos TIPPER (14 CUM) : 1 nos TIPPER (10CUM) : 1 nos WATER TANKER: 2 nos	Actual also same.	NIL
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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
Rule 45(7)	13/02/2020				

Date :**(Prashant S Hegde)**

Indian Bureau of Mines