

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

**Mining Plan Modification REPORT**

**Bangalore regional office**

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

**Mine code :** 30KAR03154

- (i) Name of the Inspecting : **278** ) **KRISHNENDU CHATTERJEE**  
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Shri K.V. Sreedhar, Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 18/07/2019
- (v) Prev.inspection date : 03/08/2016

**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 : SANDUR
- (g) First opening date : 15/05/2006
- (h) Weekly day of rest : SUN
2. Address for : MR.ARUN CHIRANIA, NOM. OWNER,M/s M.Hanumantha Ra  
correspondance 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 : 50
- (d) Date of Expiry : 11/12/2055
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

## Manager

Name : M.S.Devarajasetty  
 Qualification : Dip. in Mining  
 Appointment/ : 25/01/2007  
 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

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	11 Boreholes	10 RC boreholes drilled with total meterage of 688m	127mm dia
1b	Exploration over lease area for geological axis 1 or 2	G1 & G2	G1 & G2 stage achieved for heamatitic iron mineralization. G2 & G3 for magnetite iron ore.	Both heamatitic and magnetite iron ore bands present in the ML area.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	APC Drilling & Consultation Pvt. Ltd., Namakkal. Tamil Nadu. Total expenditure Rs. 28,25,685/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G2 & G1	G1 & G2 stage achieved for heamatitic iron mineralization. G2 & G3 for magnetite iron ore.	
1e	Balance reserve as on 01/04/20	No proposal.	5.15 million tones of heamatitic iron ore & 3.80 million tonnes of magnetite iron ore.	As on 01.04.2019
1f	General remarks of inspecting officers on geology, exploration etc		So far, total 6 nos. of core bore holes, 19 nos. of DTH holes and 10 nos. of RC holes have been drilled in the ML area by the lessee. Eastern side of the ML area mainly dominated by Magnetite reefs and western side of the ML area dominated by Heamatitic ore reefs.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1658200 to N1657800, E680000 to E680350	No change in development area	Two pits located in development area: Western Pit: 350m x 180m x 90m Eastern Pit: 260m x 80m x 60m

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and mineral proposed.	Western Pit benches: In OB- 5 In Ore- 4 Eastern Pit benches: In OB- 2 In Ore- 1	
2c	Stripping ratio or ore to OB ratio	1: 2.6	1: 2.2	Tonnage basis.
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	188815 m3	158575 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Mining Plan modified and approved on 21.032018 for production enhancement from 0.1 to 0.144 million tonnes per annum.	

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two pits proposed	Carried out as per the proposals of modified mining plan.	
3b	Quantity of ROM mineral production proposed	144,000 tonnes	143,990 tonnes.	
3c	Recovery of sailable/usable mineral from ROM production	100%	100% as entire ROM was salable.	
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not Applicable.	
3f	Quantity of sub grade mineral generation.	No proposal	Not applicable.	
3g	Grade of sub grade mineral generation	No proposal	Not applicable.	

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals.	Nil	
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed.	Carried out as per the approved proposals.	
3k	Provision of mining machineries in mineral benches	Excavators and tippers combination.	Excavators: 5 nos. Tippers: 6 nos. Wheel loader: 3 nos. Water tanker: 2 nos.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8 to 10m	8 to 10m	
3m	Total area covered under excavation/pits	8.26 Ha.	8.58 Ha.	
3n	Ore to OB ratio for the pit/mine during the year.	1: 2.6	1: 2.2	tonnage basis.
3o	Total area put in use under different heads at the end of year	Mining: 8.26 Ha. Waste Dumping: 8.26 Ha.	Mining: 8.58 Ha. Waste Dumping: 8.26 Ha.	
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 ( in tonnes)	2014-15:99,900 2015-16:100,000 2016-17: 99,990 2017-18:99,990 2018-19: 143,990 ( in tonnes)	
3q	General remarks of inspecting officers on method of mining etc.		Mining operation was carried out as per the approved modified mining plan.	

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Temporary backfilling of waste within western pit proposed.	Waste disposal by temporary backfilling at western pit between section nos. B-B' and C-C'.	No top soil generation.
4b	Location of topsoil, OB and mineral reject dumps	Dump1 and dump 3 located at Northern side. Dump 2 located at Southern side	Temporary backfilling during 2018-19.	
4c	Number of dumps within lease area and outside of lease area	3 nos. within ML area.	3 nos. within ML area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping/ temporary backfilling proposed within UPL	Dumps are located within UPL due to space constrains.	Temporary backfilling started in western pit from March-2018.
4e	Number of active and alive dumps.	No proposals	Temporary backfilling.	
4f	Number of dead dumps.	3 nos.	3 nos.	
4g	Number of dumps established.	2 nos.	Dump stabilization are carried out as per the approved proposals.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed along the dumps.	Carried out as per the approved proposals.	
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall: 100m Garland drain: 435m	Retaining wall: 100m constructed Garland drain: 450m constructed	Cumulative of 990m of retaining wall and 1500m of garland drain constructed so far.
4j	Number of settling ponds	No proposal	1 constructed.	

4k	Specific comments of inspecting officer on waste dump management	Step-wise temporary backfilling with maximum height of 10 m for each terrace was proposed within western pit, but during the course of inspection it was found that such backfilling was not suitably terraced and stabilized; violation of rule 11(1) issued to the lessee dated 02.08.2019.
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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.	Temporary backfilling proposed at western pit.	Temporary backfilling carried out within western pit.	Mineral still persists below western pit.
5b	Area under backfilling of mined out area	3 Ha. area in western pit.	1.5 Ha. area in western pit.	Temporary backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Mining area devoid of any top soil	Nil	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Temporary backfilling started in western pit from March-2018, phase wise re-handling of same material proposed during conceptual period to win the ore beneath.	

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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	The Annual Report on PMCP to be submitted within the stipulated time for FY 2018-19 within 1st July 2019	Yearly report 2018-19 submitted on 05.07.2019	
6b	Area available for rehabilitation (ha) .	0.5 Ha.	0.5 Ha.	Under waste dump management.
6c	afforestation done (ha).	0.5 Ha.	0.5 Ha.	
6d	No. of saplings planted during the year	800 nos.	1800 nos.	
6e	Cumulative no .of plants	Not specified.	Approx. 70,000 nos.	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	Not specified.	Rs. 3 lakhs	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal for reclamation and rehabilitation of backfilled pit.	Temporary backfilling in western pit was not matured for final reclamation and rehabilitation.	Mineral still persists below western pit.
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	Nil	No waste land involves within ML area
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)	Season-wise Environmental monitoring proposed.	Season-wise environmental monitoring were carried out and parameters are within the permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Lessee has implemented PMCP proposals in accordance with the approved modified mining plan.	

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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 proposed to be crushed and dry Screening	ROM Mineral dispatched after dry screening.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical using mobile crushers and screening plant.	Mechanical sorting done using mobile crushers and screening plant (200TPHcapacity) .
7c	Different grade of mineral sorted out at mines.	Proposed for all +45% Fe ROM	Yes. Grade wise sorting carried out as per buyer's requirement.
7d	Any beneficiation process at mines .	No proposal except crushing and dry screening.	Crushing and dry screening.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Grade wise sorting & sizing done within the lease area as planned using crusher and screening arrangement.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Mining area devoid of any top soil	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate disposal of waste proposed with temporary backfilling.	No change.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	Not applicable as mineral not exhausted at pit bottom.	Temporary backfilling started in western pit from March-2018 as per approved modified mining plan.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	4.8 Ha. of dumping area afforested so far.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Entire ML falls under the forest. 800 nos. of plantation proposed within ML area during 2018-19.	1800 nos. within ML and 240nos. outside ML were planted.
8g	Survival rate	Not specified.	60%
8h	Water sprinkling on roads to control airborne dust	Proposed	Water tankers were arranged for water sprinkling on roads for control the dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The aesthetic beauty in and around mine was good as lessee had carried out afforestation and other environmental protective measures as per approved Modified MP and approved R &R plan.

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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 June,2019 A.R. Submitted up to 2018-2019	M.R. Submitted up to June,2019 A.R. Submitted up to 2018-2019	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Shri M.V. Mahesh. Geologist: Shri C. Nagabushana Mines Manager: Shri K.V. Sreedhar	No change.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit/Mining: 8.26 Ha; Dumps: 8.28 Ha. Infrastructure / /Roads: 2.34 Ha	Actual also same at that time	
9d	Scrutiny of Annual return on afforestation	1800nos. within ML area	1800 nos. saplings planted within ML area along the safety zone and dump slopes.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	317,150 tonnes	No mineral reject generation during 2018-19	Mentioned incorrectly in Annual return, violation of rule 45(5) issued to the lessee dated 02.08.2019.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock 16990 tonnes.	Actual also same at that time.	Graded/ sorted ore dispatches through e-auction only.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. mine price/ tones: Lumps: Below 55% Fe: Rs. 1469/- 60-62%Fe: Rs. 2570/- 62-65%Fe: Rs. 3543/- Fines: 60-62%Fe: Rs. 2245/- 62-65%Fe: Rs. 2593/- Cost of Production: Rs. 1088/ tonne	Ex-mine price for grade 60% to 62% Lumps and Fines are not matching with sale value for the same grade.	Violation of rule 45(5) issued to the lessee dated 02.08.2019.
9h	Scrutiny of Annual return on fixed assets	Rs. 297,71,059/-	Appear to be correct.	
9k	Scrutiny of Annual return on mining machineries	Excavators: 5 nos. Tippers: 6 nos. Wheel loader: 3 nos. Water tanker: 2 nos.	No change.	

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**Details of violations observed during current inspection and compliance position of violation pointed out**

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	02/08/2019			
MCDR17	Rule 35(2)	02/08/2019			
	Rule 45(5)	02/08/2019			

**Date :**

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines