

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

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/12/BNG

Mine code : 30KAR03046

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Mr.A.Guruswamy (Mines Manager),
Official with
Designation
- (iv) Date of Inspection : 22/07/2019
- (v) Prev.inspection date : 09/01/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DONIMALAI(NAVALUTTI 140A.**
- (b) **Registration NO.** : **IBM/4103/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **NAVALUTTI**
- Taluka : **SANDUR**
- Post office : **DONIMALA-TOWNSHIP**
- Pin Code :
- FAX No. : **08392-271156 (F),hrgaviap**
- E-mail : **sumithramkt@hrgmining.com**
- Phone : **08392-279946 (O), 98862093**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **17/11/1987**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **SRI.H.R.GAVIAPPA & CO.**
correspondance **III FLOOR, HRG COMPLEX, HRG CIRCLE**
BELLARY KARNATAKA-583101.
3. (a) **Lease Number** : **KAR1209**
- (b) **Lease area** : **34**
- (c) **Period of lease** : **50**
- (d) **Date of Expiry** : **31/03/2020**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : H.R.GAVIAPPA & CO
 PARVATHI NAGAR, BELLARY,
 BELLARY KARNATAKA
 Phone:08395-72083,72075
 FAX :

Owner : H.R.GAVIAPPA & CO
 PARVATHI NAGAR, BELLARY,
 BELLARY KARNATAKA
 Phone:
 FAX :

Agent : V.K.SAMBANDAM
 BELLARY KARNATAKA
 Phone:
 FAX :

Mining Engineer

Name : GIRIDHAR JOSHI, Full Time
 Qualification : BE MINING
 Appointment/ : 01/01/2007
 Termination date

Manager

Name : SURESH BHONSLE
 Qualification : DIP.IN MINE & MINE SURVEYING WITH FCC
 Appointment/ : 01/11/2006
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	03/01/1991
Plan/Scheme of Mining		Renewal under rule 22 MCR1960	27/05/1996
		Mining Scheme rule 12 MCDR1988	01/01/2002
		Modif.approved Mining Scheme	28/09/2004
		Mining Scheme rule 12 MCDR1988	16/11/2006
		Modif.approved Mining Scheme	20/04/2010
		Modif.of approved Mining Plan	28/01/2015
		Mining Scheme rule 12 MCDR1988	14/03/2016
		FMCP under 23C(1)	25/06/2018
		MP modif under 17(3) MCR 2016	23/08/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Not applicable	No back log of previous year. 16 Core bore holes drilled with total meterage of 750 in 2015-16.
1b	Exploration over lease area for geological axis 1 or 2	No proposal	Area covered G1-12.95Ha G2-19.39 Ha	Exploration carried out in the past years
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Not applicable	Exploration carried out by Met-cham laboratories , Bangalore in 2015-26. Cost incurred towards exploration was Rs-33.20 lakhs.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal In Modification Mining Plan	Nil	Total lease Area already covered G1-12.95Ha & G2-19.39 Ha in the year 2015-16
1e	Balance reserve as on 01/04/20		2122000 Tons	As per AR 2018-19
1f	General remarks of inspecting officers on geology, exploration etc			No exploration proposal in the reporting year. Area covered under G1-12.95Ha & G2-19.39 Ha

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development proposed in between section line CC` & DD`	Development done with in the specified section line CC` & DD`. Advancement of the development benches were carried out in the east & west direction.	Development carried out in E-676099 -E-675860 To N-1662513-N1662359

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in OB & Mineral	Separate benches maintained in OB & Mineral	Ore - 14 bench, OB- 8 benches. No top soil is generated. Northern side of area have ore from top to bottom. In Eastern & Western side of lease area have OB.
2c	Stripping ratio or ore to OB ratio	1:3.28	1:3.28	No change
2d	Quantity of topsoil generation in m3	No proposal	Not applicable	No top soil generated
2e	Quantity of overburden generation in m3	172245 m3 344490 Tons	172245 m3 344490 Tons	Bulk Density - 2(OB)
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The development was carried out with in the proposed section line with stripping ratio of 1:3.28.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit proposed for working	Working carried out in one pit only	Approx. pit size: 140(L)*220(W)*84(H) Mts
3b	Quantity of ROM mineral production proposed	1,05,000 Tons	1,04,900 Tons	Actual production within the proposed limit.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	80% High Grade & 20% Low/sub Grade
3d	Quantity of mineral reject generation	No proposal	Nil	No mineral reject generated
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	-
3f	Quantity of sub grade mineral generation.	21,000 MT	20,196 MT	(+45-56) Sub Grade

3g	Grade of sub grade mineral generation	+45 to -56 % Fe	+45 to -56 % Fe	Fine- 70% , Lumps -30%
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating from ROM	Mechanized method adopted for segregating from ROM	Dry crushing & Screening unit
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No such study carried out	-
3j	Provision of drilling and blasting in mineral benches	Provision is made for drilling & Blasting in Mineral benches.	Adopted Drilling & Blasting to win the ore.	Blast hole dia- 115.00mm,ANFO with booster is used in blasting in s 80:20
3k	Provision of mining machineries in mineral benches	Proposed mining machineries in mineral bench	Machinery used: Excavator-3, Loader-2, Tipper-6, Drill-1.	Mining M/C deployed as proposed.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height-6 Mts, Width -6 Mts proposed	Actual height of the benches -6-9 mts & Width of 6 mts	The bench height in the ore bench was observed to be more than the proposed height of 6 Mts in the eastern side of the working in between section line CC` & DD`. Violation pointed out.
3m	Total area covered under excavation/pits	9.8 Ha	9.8 Ha	No change
3n	Ore to OB ratio for the pit/mine during the year.	1:3.28	1:3.28	No change

3o	Total area put in use under different heads at the end of year	Opencast Mining-9.8, Waste Dumps-5.88, Mineral storage-1.020, Infrastructure workshop administrative building-0.1, Road-2.5, R&R engineer structures-0.88, Dump afforestation-7.4, Green belt-1.8, Un touched area-2.96	Opencast Mining-.9.80 Ha,waste Dump-5.88 Ha,Occupied by plant , building residential, welfare building & Road-2.375 Ha, work done under progressive mine closure plan during the year-2.5Ha	R&R engineer structures-Dump afforestation, Green belt- 7.68,
3p	Production of ROM mineral during the last five year period as applicable	2014-15:1,04,916 2015-16:1,04,951 2016-17:1,05,000 2017-18:1,05,000 2018-19:1,05,000	2014-15: 1,03,879 2015-16: 1,04,946 2016-17: 1,04,425 2017-18: 1,04,696 2018-19: 1,04,900	All units in Tons.Actual production with in the proposed limit
3q	General remarks of inspecting officers on method of mining etc.			Mining was carried out in one pit with 1:3.28 stripping ratio.The bench height in the ore bench was observed to be more than the proposed height of 6 Mts in the eastern side of the working in between section line CC` & DD` for which violation pointed out

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 for OB proposed	Separate dumping for OB carried out.	Southern portion of the lease area is being used for active dumping

4b	Location of topsoil, OB and mineral reject dumps	Proposed location of OB Dump: N-1662278 N-1662042 To E-676247 E-675994	Actual dumping within the proposed grids N-1662278 N-1662042 To E-676247 E-675994	Actual dumping with in the proposed grids.
4c	Number of dumps within lease area and outside of lease area	Within the ML area-4 dumps ,Outside the ML area-Nil	All the 4 dumps are within the ML area.	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump proposed outside the ultimate pit limit	Dumping of OB Outside the ultimate pit limit	Southern portion of the lease area
4e	Number of active and alive dumps.	One active dump proposed	One active & alive dump	-
4f	Number of dead dumps.	Three Dumps	Three dumps are matured & considered as dead.	-
4g	Number of dumps established.	Three dead dumps proposed for stabilization	Three dead dumps stabilized	Stabilized by plantation & coir matting.
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes , provision made.	Retaining wall and garland drain constructed all along the dumps	RW and GD constructed as per R&R approval
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall- Nil Garland drain- 509 m	Constructed Retaining wall of 720 mts & Garland drain of 537 m	RW constructed in the previous plan period
4j	Number of settling ponds	SST-One Numbers	Constructed one silt setting tank as per proposal.	-
4k	Specific comments of inspecting officer on waste dump management			Waste dump management in the mine is satisfactory. One active dump and 3 dead dumps within ML area has been stabilized

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Not applicable	Mineral persist at depth
5b	Area under backfilling of mined out area	No proposal	Not applicable	Mineral is not fully exhausted
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Not applicable	No generation of top soil
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			There was no proposal for back filling in the reporting year, none of the areas of mined out pit were matured for back filling due to occurrence of mineral at depth

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).	To be submitted by 1st July every year	Not submitted till date	Violation pointed out
6b	Area available for rehabilitation (ha) .	No proposal	Not applicable	-
6c	afforestation done (ha).	0.95 Ha proposed	Plantation carried out in 1.18 Ha	-
6d	No. of saplings planted during the year	2000 saplings proposed	2500 saplings planted	Plantation done on terraces of the dumps
6e	Cumulative no .of plants	15000 Saplings	16500 saplings planted in all	-

6f	Any other method of rehabilitation	No proposal	Nil	-
6g	Cost incurred on watch and care during the year	4.0 lakh proposed	Actual expenditure- 4.9 Lakhs	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x 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 on backfilled area	V	Nil	No proposal of backfilling
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	-
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)	Environmental monitoring proposed in core zone & buffer zone	Environmental monitoring was done every month in core zone & buffer zone for Air, water & Noise. Water Core zone- Nil, Buffer zone-4, Noise Core zone-1, Buffer zone-4, Air Core zone-4, Buffer zone -4	Environmental parameters with in the permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities were carried out as per the approved plan & plantation done. Construction of RW & GD were in place

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting with in the lease area proposed	Grade wise sorting done with in the lease area	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed	Mechanical method adopted	Dry crushing & screen unit of 200 TPH
7c	Different grade of mineral sorted out at mines.	Fines -10mm, Lumps +10 mm to -40mm	Lumps & Fines sorted out at mines as per proposal	-
7d	Any beneficiation process at mines	No proposal	No proposal	-

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Grade wise sorting & sizing done with in the lease area using crusher & Screen arrangement. Sub-Grade mineral generated is blended with high grade ores
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	No , top soil is generated	-
8b	Concurrent use or storage of topsoil	No proposal	Not applicable	Top soil is brought from outside lease area for plantation.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate OB dump proposed	Separate OB dump maintained	No change
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable	-
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Not applicable	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	0.95 Ha,2000 proposed plantation	1.19 Ha with 2500 plantation done	-

8g	Survival rate	Not Available	80%	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborne dust proposed	Three water Tankers deployed for separation of dust on haulage road	Each Water tanker of 9000 Lts capacity
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation have been done on the OB dumps , Greenery is maintained in & around lease area

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 2018-19	AR submitted on 26/06/2019.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer-Mr Dilip Kumar Geologist- Mr Imran khan Manager-Mr A.Guruswamy	Same officers were present during the inspection	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Opencast Mining-.9.80 Ha waste Dump- 5.88 Ha Occupied by plant , building residential, welfare building & Road-2.375 Ha, R&R engineer structures- Dump afforestation, Green belt- 7.68 Ha, work done under progressive mine closure plan during the year-2.5 Ha	Appears to be correct	

9d	Scrutiny of Annual return on afforestation	2500 @ 60% Survival rate	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 ; OS- Nil, Production: 104900 MT, CS: Nil	Appears to be correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production; 2295.98 Rs/Ton, Ex-mine price:2993.8 Rs/Ton, Sale value: Lumps-3374Rs/Ton, Fines-2803 Rs/ton	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	Rs-2266551 including land, Industrial , plant & machinery including transport equipment	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Back hoe- 3 unit, Front & loader-2 Unit Tipper-6.0 ' Unit Dumper -2 Unit Rock drill(Non-Elec)-1 unit.	Appears to be correct

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)	30/07/2019	17/09/2019				
MCDR17	Rule 26(2)	30/07/2019	17/09/2019				

Date :

(ARUN KUMAR)

Indian Bureau of Mines