

**INDIAN BUREAU OF MINES  
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

**MCDR INSPECTION REPORT**

**Goa regional office**

**Mine file No :** KNT/BJP/Fe-1/GOA

**Mine code :** 30KAR05002

- (i) Name of the Inspecting : **P015** ) **B A PATIL**  
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine :  
Official with  
Designation
- (iv) Date of Inspection : 02/12/2014
- (v) Prev.inspection date : 30/06/2012

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **HIREMAGI RAMTHAL M.L.465**
- (b) Category : A Fully Mechanised
- (c) Type of Working : Opencast
- (d) Postal address  
State : KARNATAKA  
District : BAGALKOT  
Village : HIREMAGI-RAMTHAL  
Taluka : HUNAGUND  
Post office : HIREMAGI  
Pin Code : 587112  
FAX No. : 08351-280125  
E-mail : hrmines@doddanavarbrothers  
Phone : 08351-287740/280125
- (e) Police Station :
- (f) First opening date : 01/07/1980
2. Address for : Doddannavar Brothers  
correspondance Corporate House,Opp Hotel Ksemainn,  
Near 3rd Railway Gate, Khanapur Road, Belgaum
3. (a) Lease Number : KAR0264  
(b) Lease area : 39.66  
(c) Period of lease : 30  
(d) Date of Expiry : 28/02/1990
4. Mineral worked : IRON ORE Main

## 5. Name and Address of the

Lessee : DODDANAVAR BROTHERS  
 Corporate House, Opp Hotel  
 Ksemainn Near 3rd Railway  
 Gate, Khanapur Road,  
 BELGAUM KARNATAKA  
 Phone:0831-2466727  
 FAX :0831-2403401

Owner : PUSHPADANT PARISAPPA DODDANNAWAR  
 Corporate House, Opp Hotel  
 Ksemainn Near 3rd Railway  
 Gate, Khanapur Road BELGAUM  
 KARNATAKA  
 Phone: 0831-2466727  
 FAX : 0831-2403401

Agent : RACHAPPA MALLAPPA SARADAGI  
 General Manager (Mines)  
 Doddanavar Brothers At-  
 Hiremagi, Tq-Hungund  
 BAGALKOT KARNATAKA  
 Phone: +919845739350, 08351-287740  
 FAX : 08351-280125

Manager Name : RACHAPPA Qualification : B.E. Mining Appointment/ : 01/04/1997 Termination date : 01/12/2003
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6. Date of approval of Mining : 26/10/2010  
 Plan/Scheme of Mining

**PART - II : TECHNICAL DETAILS/COMMENTS****1. Details about Average employment :****Maximum number of persons employed on any day during the year**

<b>Employment category</b>	<b>No.of employment</b>	<b>Av. yearly working days</b>
<b>DIRECT</b>		
<b>Managerial</b>	<b>2</b>	
<b>Workers</b>	<b>14</b>	
<b>Supervisory</b>	<b>7</b>	

**2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.**

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
<b>General</b>					
Sanitation	0.00	0.00	0.00	0.00	
Medical facility	0.00	0.00	0.00	0.00	Included in heal
Health	0.00	1.00	0.00	4.25	
Safety	0.00	0.00	0.00	0.00	
Housing	0.00	2.50	0.00	8.50	
Water supply	0.00	2.00	0.00	10.00	
<b>Sub total</b>	<b>0.00</b>	<b>5.50</b>	<b>0.00</b>	<b>22.75</b>	
<b>Infrastructure</b>					
Electricity					
Public transport	0.00	0.00			
Roads					
Communication	0.00	0.00	0.65	5.80	
<b>Sub total</b>	<b>0.00</b>	<b>0.00</b>	<b>5.50</b>	<b>5.80</b>	
<b>Environment management</b>	<b>0.00</b>	<b>0.00</b>	<b>8.00</b>	<b>34.50</b>	
<b>Sports activities</b>					
<b>Training</b>	<b>0.00</b>	<b>0.00</b>	<b>1.20</b>	<b>12.20</b>	Includes educati
<b>Employment</b>	<b>0.00</b>	<b>0.00</b>	<b>11.00</b>	<b>74.00</b>	
<b>Others</b>					
<b>Recreation</b>	<b>0.00</b>	<b>0.00</b>	<b>0.60</b>	<b>3.60</b>	
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>26.95</b>	<b>152.85</b>	

**3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.**

Mine was earlier inspected on 21.06.2010. no violation of MCDR-88 were pointed. Violations of rule 12(2) and 23E(2) was observed during present inspection. A Violation letter was issued on 29/12/2014. Lessee complied rule 23E(2) and submitted draft SOM in compliance of rule 12(2) which is under process.

**4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.**

Suspension of mining operations under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988 has not been recommended presently.

## 5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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## A. Exploration (Rule 13)

- a.Type of prospecting : 2010-11 - 13  
and exploration i.e. Boreholes. Toatal  
pitting, drilling meterage- 630m  
2011-12 -14  
boreholes. Total  
meterage- 840 m.
- Total 11 boreholes ( 10  
core & 1 DTH) have been  
drilled for total  
meterage of 343.4 m  
durig the period.
- b.Total area covered : Minealised area of  
about 20 Ha. About 10 ha.

## B. Working (Rule 13)

- a.Number and size of : Workings have been  
each pit (LxWxH) divided in to  
three pits. West  
pit- 392m x 275m x  
82m, East pit-  
341m x 270m x 84m,  
Central Pit- 205m  
x 147m x 30m.
- Mine has not worked  
since March 2010 for  
want lease renewal and  
forest clearence.
- b.Bench : Regular with 8m  
size(LxWxH)length can height and width.  
be defined as Work of regularisation  
regular/irregular of benches was  
undertaken prior to  
temporary closure by  
working in BHQ zone. It  
has been discontinued  
since March 2010 as mine  
is not working since  
then.
- c.Ore to waste ratio : 1:0.38  
pit wise if possible  
otherwise for mine Mine has been  
temporarily closed since  
March 2010.
- d.Total area covered : it was proposed to  
under excavation/pits mine about 5 ha  
area during plan  
period. Mine remained  
temporarily closed from  
March 2010. The total  
mining area remained as  
23 Ha.

## C. Waste disposal (Rule 13)

- a.Location of dumps : Dump was proposed  
between E3735 to  
E3830 & N1224 to  
N1363 and BHQ dump  
between E3740 to  
E3810 & N1152 to  
N1220.
- Mine remained  
temporarily closed.  
Presently there are four  
dumps over an 11.59 ha  
area.
- e.Yearly generation : A quantity of  
of waste quantity. 70000 tonnes was  
proposed per annum  
during 2010-11 Mine has remained  
closed.
- b.Method of dumping : Advancing. Mine has remained

whether advancing/retreat

closed during the plan period.

c.Total area covered under waste dump. : About 0.94 ha area was proposed for during plan period.

Mine has remained closed during the same period.

d.No.and size of each waste dump with No of steps/lift/bench : It was proposed to form dumps of 20m heifht.

The dump sizes are 40m x 35m x 19m, 43m x 37m x 16m, 44m x 36m x 16m, 45m x 39m x 22m. formed of three terraces.

**D. Production**

b.Year wise production of last five year. : It was proposed to produce 3 lakh tonnes of normal iron ore and BHQ varying from 16000t to 74000t with avarage of 48000t per annum from 2010-11 to 2013-14.

Mine is not working since March- 2010.

**D. Reserve**

a.Reserve position as per latest MP/MS and at the time of inspection. : Reserves/ Resources as on 01.04.2014(as per approved MP)  
 Proved Reserves(111)- Iron ore +45% Fe- 633662 tonnes.  
 Reconnaissance Resources (334)- Iron ore+45%Fe - 3645042 tonnes  
 BHQ+35-45% - 5093588 t

Mine has remained temporarily closed. Hence no change in resource position.

**RESERVE POSITION AS ON 01/04/2014**

<b>IRON ORE</b>		
Category	Quantity in Tonnes	Grade
Proved	1633662	Iron ore - +45%Fe, BHQ- +35%Fe
Probable	0	
Possible	8738630	
Total	10372292	

**PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014**

Mineral	Production	Unit
IRON ORE	0	TON

**6. Conservation of Mineral - both quantitative and qualitative****Beneficiation (Rule 20 and 26)**

- Efforts for improving low grade and sub grade mineral. : The normal ore ROM is crushed and screened with 30mm and 10mm screens. The -30mm to +10mm calibrated ore is about 40% and -10mm fines is about 60% of the total ROM. The lumps are washed and marketed. The washed lumps are of +57%Fe grade. The fines with -58+55%Fe are washed in washing plant of 120tph capacity and is located outside the lease area. It consists of hopper, vibrating screen, classifier, conveyor belt and thickner. The final concentrates are of 57%Fe grade with +80% recovery.
- Efforts for improving percentage of recovery of ore. : A feed sample assaying 35.17%Fe and 47.35%silica was subjected to gravity and magnetic separation and reverse floatation. Gravity separation after grinding and regrinding (-65# and -100#) produced a concentrate of 60.77%Fe and 11.18% SiO<sub>2</sub> with iron recovery of 44.5% (wt yield 25.87). Reverse floatation of quartz at a grind of -100# using cocoamine acetate as collector produced an iron float fraction assaying 51.25% Fe(T) with Fe recovery of 56.8% (Wt yield 39.07).

**Mineral Rule 15**

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : The recovery of saleable ore is 90%.
- Number of benches in ore and waste. : 3 benches in ore 5 benches in waste/OB

**Sub/grd mineral/fines (Rule 16)**

- Qty of yearly generation and total qty available during inspection with grade : 30000 t to 40000 t per annum.
- Number and size of each stack : Two stacks- 150 & 120m x 100m x 2m.
- Location of stacking. : Eastern and western part of the lease area.
- Separate stacking from waste : The +57% Fe normal iron ore is despatched. The ore with 50% is upgraded /blended with higher grades and made despatchable. The ore with 45 to 50% Fe BHQ with +35% Fe forms the sugrade. About 284050 tonnes of sugrade is stacked separately.
- Total area covered for stacking : 1.80 ha area on eastern part and 1.20 ha area on western part, total 3.00 ha area.

**Exploration data as on 31/03/ 2014**

No. of Boreholes	No. of Pits	No. of Trenches
38		

**OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014****Utilisation of Sub Grade Mineral and Mineral Rejects**

<u>Generated</u>	<u>Utilised</u>	<u>Stacked</u>	(In Ton.)
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## 7. Environment Management - both quantitative and qualitativ

### A. Land environment

- a. Landscape. : The area is located on NW trending hill range. The highest elevation is 653mRL and lowest elevation is about 525mRL.
- b. Aesthetic environment : The area is degraded due to mining . The lessee has undertaken sizeable number plantaion about 44000 (cummulative) having a well developed nursery. Apart from this the exaustive plantation has been made within office premises just adjacent to the lease area.
- c. Soil and land use pattern : Soil occurs at places which is used for plantation. The land use pattern is - Mining- 23 ha, dumping 9.89 ha, Infrastructure(roads, buildings)- 0. ha, Crushing/ Screening plant - 0.73 ha, Subgrade mineral stack-3.0 ha, Green belt- 1.51 ha.
- d. Agriculture : No agriculural land in the lease area. Crops like sugarcane, jowar, groundnut, cotton etc are grown in the surrounding area.
- e. Forest(flora and fauna) : The lease area falls under forest. The vegetation density is very thin mainly consisting srubs. Major trees observed in buffer zone include Neem, Hunase, Kakke, Mathi, etc. Apart from domestic animals monkeys, wild boar, pig, etc are seen in the area.
- f. Vegetation : The lease area is grown with srubs and bushes wit few majioe trees.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : There is no Public building, places and monuments (protected, historical), placec of worship and places of tourist within lease area.

### B Water environment.

- a. Surface water : No perenial rivers / nalas or springs present in the area. Area experiences low annual rainfall. Natural valleys drain the water.
- b. Ground water : Water table is at low depth and mining has not yet touched the water table. Hence ground water has not been affected.
- c. Quality of water : Water from wells is potable.

### C. Air environment

- a. Noise : Mining operations are temporary closed since March 2010 and therefore, there is no issue on noise pollution. Mining operations were carried out by mechanised method of mining.
- b. Air : There is no adverse impact on quality of air, as mining operations are temporary closed.
- c. Climatic condition : The maximum temp. during the summer reaches to 43 degree celcius & minimum temp during winter is around 13 degree Celcius.



**D. Socio economic environment**

- a. Social and demographic profile. : The main occupation of the people of the area is agriculture. There are 33 villages in core zone having more than one lacs population.
- b. Recommending health and safety. : Medical facilities are provided by the company.
- c. Human settlement : No human settlement noticed within lease area.
- d. Recreational facility. : Recreation club has been established by lessee in the mine colony and facilities for playing Badminton etc. are provided

**7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.**

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>		<u>2013 - 2014</u>
		Area in Hect.

<u>TOP SOIL MANAGEMENT</u>
Quantity as on 31/03/2014

**8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.**

The lessee has submitted AR for the year 2013-14. The information furnished under items given bellow is as follows.

Land use - Mine Pits- 23 Ha, Waste dumps- 8.7 ha, Infrastructure- 3.1 ha, Green Belt- 4.4 ha. Stocks at mine head- 18305 tonnes, cost of production- Rs 636/- when mine was working.

**PART - III : PERFORMANCE OF MINE OWNER**  
(In case of lease expiring within 2 years - as per guidelines)

**a. Compliance of terms and conditions of lease deed.**

There is no specific terms and conditions of lease deed.

**b. Compliance of the provisions of MCDR, 88 and advise given.**

1. Mining Plan approved vide letterNo MP/S-MECH- 30(KNT)/GOA/88 dated 05.06.1989 for the period 1990-95.
2. Scheme of Mining approved vide letterNo MS/MECH- 3(KNT)/GOA/96 dated 18.02.1997 for the period 1995-2000.
3. Scheme of Mining approved vide letterNo MS/MAN- 33(KNT)/GOA/01-02 dated 27.05.2002 for the period 2000-2005.
4. Scheme of Mining approved vide letterNo MS/BGK/GOA/40-SZ dated 03.12.2004 for the period 2005-2010.
5. Mining Plan approved under rule 24A of MCR-1960 vide letter No MP/BGK/GOA(KNT)/Fe-219-SZ dated 26.10.2010 for the period 2010-15.

**c. Conduct with regard to adoption of safety measures and forest wealth, ecology and environment in the mining lease area.**

The lessee has developed a Nursery adjacent to the lease area which provides saplings of local variety of plants to lease area and also to the local villagers/institutions thus taking care of environment.

**d. Whether the mine owner has carried out exploration and exploitation on the basis on surface mapping, pitting, trenching and core drilling taking in to consideration the mode of occurrences of mineral deposit.**

Lessee has carried out exploration by shallow DTH drill holes to know the ore body characteristics and depth persistency. During 2002-2004 four DTH holes each with 50m depth have been drilled for a total meterage of 200m. In 2004-06 seven DTH boreholes have been drilled to a total depth of 335m. The minimum and maximum depth drilled is 35m and 70m. 17 DTH boreholes have been drilled in the year 2007 for a total meterage of 505 m. The minimum and maximum depth drilled is 5m and 62m. In approved Mining Plan total 27 diamond core drill boreholes were proposed during 2010-11 and 2011-12 against which lessee has drilled total 11 holes, 10 by diamond core drill and 1 DTH, for a total meterage of 343m. The minimum and maximum depth drilled is 3m and 38m. Lessee could not continue further core hole drilling due to shortage of funds and for want of other clearances.

**e. Whether production from mining area is commensurate with the reserves and the long term progress of utilization of mineral.**

The production was carried out within available reserves. The average production during 2005-06 to 2009-10 was about 4.53 lakh tonnes per annum which was more than EC limit.

**f. Whether adequate investment has been made by the lessee on the development of mine on mining machinery, operational and administrative building, residential accommodation for the employees.**

The investment made by the lessee is as follows:

Infrastructure- BHQ beneficiation plant under installation- Rs 55 crore, Crusher, Screening plant and Machineries- Rs 14 crore, Existing beneficiation- washing plant- Rs 8 crore, R & D on BHQ upgradation, Exploration- Rs 2 crore,

Civil work, land, environmental protective work, etc - Rs- 9crore.

**g. Measures taken by the lessee for protection of environment and ecology.**

Mine is not operating since 05 June 2011 for want of FC clearance and renewal of lease.

Details of afforestation within lease area is as follows in following order.

2008-09	4000	1.73	Ha
2009-10	5000	1.92	Ha
2010-11	3000	1.36	Ha
2011-12	4500	1.73	Ha
2012-13	4500	1.73	Ha
2013-14	3000	1.36	Ha

**h. In case leases where the mineralisation tends to exhaust within the present period, the status of closing operation in phases and the special issues including human issues to be addressed at the time of closing of mine.**

Mineralisation still continues at depth which needs to be explored with deep drilling.

**PART - IV : PROPOSALS FOR FURTHER ACTION FOR :**

**Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)**

Nil

**State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)**

Nil

**The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)**

Nil

**Date :**

(B A PATIL)

Indian Bureau of Mines