

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

**MCDR inspection REPORT**

**Goa regional office**

**Mine file No :** GOA/FEMN/156

**Mine code :** 30GOA02087

- (i) Name of the Inspecting : **K03** ) **G. S. KANNAN**  
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : S/Shri.M.Bhat, Sr Manager Geology & V.Naik, Mines Man  
Official with  
Designation
- (iv) Date of Inspection : 20/09/2017
- (v) Prev.inspection date : 14/12/2016

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BORGADONGRACHEM**
- (b) **Registration NO.** : **IBM/169/2011**
- (c) **Category** : **A Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **GOA**
- District : **SOUTH GOA**
- Village : **RIVONA**
- Taluka : **SANGUEM**
- Post office :
- Pin Code :
- FAX No. : **(0832) 2732587**
- E-mail : **homines@ptigroup.co.in**
- Phone : **(0832) 2602239**
- (f) **Police Station** : **RIVONA**
- (g) **First opening date** : **01/01/1952**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **VILLAGE: RIVONA,**  
**correspondance** **TALUKA: SANGUEM**  
**DIST: S.OUTH GOA,GOA**
3. (a) **Lease Number** : **GOA0104**
- (b) **Lease area** : **89.5**
- (c) **Period of lease** :
- (d) **Date of Expiry** : **22/11/2027**
4. **Mineral worked** : **IRON ORE** **Main**

## 5. Name and Address of the

Lessee : PANDURONGA TIMBLO INDUSTRIES  
 SUBHAS TIMBLO BHAVAN  
 ISIDORA BAPTISTA ROAD,  
 MARGAO, GOA. SOUTH GOA GOA  
 Phone:0832-721151,720987, 732511  
 FAX :(91) 0832-732587

Owner : Pramod Pandurang Timblo  
 Subhash Timblo Bhavan Post  
 Box No.--242 Margao, Goa  
 SOUTH GOA GOA  
 Phone: 720987,732511,7  
 FAX : 732587

## Mining Engineer

Name : MOVVA PRAKASH,Full Time  
 Qualification : B.E. (MINING), BANGALORE UNIVERSITY  
 Appointment/ : 09/12/2016  
 Termination date

## Geologist

Name : RIYAZAHMED BARUDWALA,Full Time  
 Qualification : M.Sc. GEOLOGY, KARNATAKA UNIVERSITY  
 Appointment/ : 09/12/2016  
 Termination date

6. Date of approval of Mining	:	MP modif under MCR 1960	28/01/2016
Plan/Scheme of Mining	:	MP review under 17(1) MCR 2016	03/03/2017

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Boreholes has proposed	3 Boreholes has achieved with 254 meterage	Form-J has submitted
1b	Exploration over lease area for geological axis 1 or 2	Additional exploration was proposed in modified mining plan for G-1 Axis.	Area explored under G-1 category is 2.00 Hect. and 2.50 hect is under G-3. Total 45 boreholes were drilled with 2179m.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Own drilling and/or contract drilling machines were used for exploration in the past.	Total 47 boreholes were drilled with 2271 meterage. Total Rs. 39.0 lakhs was spent on exploration.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Exploration was proposed in 2.50 Hect under G-3	3 Boreholes has drilled and 1.0 hect has explored from G-3 to G-1	Previously Exploration was carried out at 50m X 50m grid interval. Balance area of 1.50 hect area has to be explored for availability of ore from G-3 to G-1.
1e	Balance reserve as on 01/04/20	As on 01.04.2017 Proved Mineral Reserves (111) = 1269737 Tons Inferred Mineral Reserves (333) = 410313 Tons	As on 01.04.2016 Proved Mineral Reserves (111) = 1266569 Tons Inferred Mineral Reserves (333) = 410313 Tons	
1f	General remarks of inspecting officers on geology, exploration etc	The deposit is of Rivona Colamba Deposit	Ore is irregular, Sporadic and bouldery	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	E 4005 to 4045/ N 2010 to 2042	E 4005 to 4045/ N 2010 to 2042	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil is not present in area. Proposed 2 benches in waste and in ore.	Topsoil is not present in area. Developed one bench in waste & in Ore	
2c	Stripping ratio or ore to OB ratio	1 : 1.50	1 : 0.90	
2d	Quantity of topsoil generation in m3	Nil	Nil	No Top Soil is Existing
2e	Quantity of overburden generation in m3	2,041 m3/ 5102 tons	1,190 m3/ 2976 tons	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Proposed for 5102 Tons of OB from 2 benches	Acheived only 2976 Tons of OB from 1 benches	

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Development and production was proposed in Single Pit in between Section A & B	Development and production is carried out as per in proposed area.	
3b	Quantity of ROM mineral production proposed	The total Proposed target of ROM production was 3400 tonnes during 2016-2017 as per distribution from lessee on capping on EC limit.	Total 3168 tonnes of ROM production was reported during the year 2016-2017.	
3c	Recovery of sailable/usable mineral from ROM production	100 %	100 %	
3d	Quantity of mineral reject generation	No Proposal	Nil	

3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Nil	
3f	Quantity of sub grade mineral generation.	No Proposal	Nil	
3g	Grade of sub grade mineral generation	No Proposal	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mobile Crushing & Screening was proposed for grade-wise production.	Mobile Crushing & Screening are in use for grade wise production of iron ore in lumps and fines	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting was not proposed.	Drilling and blasting is not carried out and Backhoe, ripper dozer is used for excavation.	
3k	Provision of mining machineries in mineral benches	Excavator- 2 No Ripper Dozer - 1 No Dumper - 5 Nos W/ Loader - 1 No Dozer - 1 No Water tanker - 1 No Mobile Screening Plant - 1 No Jeep - 1 No	Excavator- 2 No Ripper Dozer - 1 No Dumper - 5 Nos W/ Loader - 1 No Dozer - 1 No Water tanker - 1 No Mobile Screening Plant - 1 No Jeep - 1 No	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 6m was proposed in waste and Ore.	As per the Proposal bench height is maintained	
3m	Total area covered under excavation/pits	0.50 hect proposed for 2016-2017	0.40 hect achieved for 2016-2017	Cumulative 8.022 hect are under pit
3n	Ore to OB ratio for the pit/mine during the year.	1 : 1.50	1 : 0.93	

3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2017 Mines/ Pit = 8.022 hect Dumping = 16.40 hect Mineral Reject Stack = 0.60 hect Road = 0.5960 hect Infrastructure = 0.0089 hect 7.5m Safety Zone = 2.100 hect 50m safety Zone = 0.5722 hect Other = 42.88 hect	Land use Pattern as on 01.04.2017 Mines/ Pit = 8.022 hect Dumping = 16.40 hect Mineral Reject Stack = 0.60 hect Road = 0.5960 hect Infrastructure = 0.0089 hect 7.5m Safety Zone = 2.100 hect 50m safety Zone = 0.5722 hect Other = 42.88 hect
3p	Production of ROM mineral during the last five year period as applicable	2016-2017 = 3400 tons 2015-2016 = 8,000 tons 2014-2015 = Nil 2013-2014 = Nil 2012-2013 = Nil	2016-2017 = 3168 tons 2015-2016 = 7950 tons 2014-2015 = Nil 2013-2014 = Nil 2012-2013 = Nil
3q	General remarks of inspecting officers on method of mining etc.	Nil	Nil

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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	There is no Topsoil and Mineral rejects, only OB is proposed	Entire developed quantity of 2975 tons has been dumped in the working area	
4b	Location of topsoil, OB and mineral reject dumps	There is no Topsoil and Mineral rejects, only OB is proposed in N 2010-2042/ E 4005-4045	There is no generation of Topsoil and Mineral rejects. OB waste has stored in the proposed area.	

4c	Number of dumps within lease area and outside of lease area	Single Dump within Lease	Single Dump within Lease
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No external dumping was proposed; however existing dump was Outside UPL	No external dumping was proposed; however existing dump was Outside UPL
4e	Number of active and alive dumps.	Active Dump = Nil	There is no active dump within lease area for waste dumping.
4f	Number of dead dumps.	Within Lease = 1	Within Lease = 1
4g	Number of dumps established.	Nil	One
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	Nil	98m Retaining wall and 50m garland drainage has constructed.
4j	Number of settling ponds	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	Nil	There is no generation of Topsoil and Mineral rejects. OB waste was been dumped in proposed area.

#### 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	Nil	
5b	Area under backfilling of mined out area	Nil	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Nil	Nil

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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).	It should be on or before 1st July every year.	Submitted within time	
6b	Area available for rehabilitation (ha) .	Nil	Nil	Backfilling is not proposed due to require of tree cutting permission
6c	afforestation done (ha).	Nil	Nil	
6d	No. of saplings planted during the year	Nil	Nil	
6e	Cumulative no .of plants	Nil	Nil	
6f	Any other method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch and care during the year	Nil	Nil	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Nil	Nil	



6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly environmental monitoring is required and report has to be sent to IBM Regional office.	Quarterly environment monitoring is carried out through own as well as private agency.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Nil	Due to tree cutting permission the lessee has not proposed any thing in this current years.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	As per approved mining plan proposed ROM was classified as +60% Fe,+58-60% Fe, +55-58% Fe, +50-55% Fe, +45-50% Fe, Low Grade +45%, Siliceous ore +40%	The ROM ore was not dispatched for Mobile screening due to FC & tree cutting permission	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical processing i.e. Mobile screening was proposed for grade-wise production.	ROM ore has not been processed during 2016 - 2017.	
7c	Different grade of mineral sorted out at mines.	As per approved mining plan proposed Gradewise production was classified as +60% Fe, +58-60% Fe, +55-58% Fe, +50-55% Fe, +45-50% Fe, Low Grade +45%, Siliceous ore +40%	ROM ore has not been processed during 2016 - 2017.	
7d	Any beneficiation process at mines .	Mechanical processing i.e. Mobile screening was proposed for grade-wise production.	The ROM ore was not dispatched screening during 2016-2017.	

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7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Nil	Ore has been not processed due FC & tree cutting permission
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## Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	Nil	
8b	Concurrent use or storage of topsoil	No Proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposed to dump for 2 level	As per proposal dump has formed	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Dump is restored with plantation and backfilling is proposed in collapsed benches from 2017-2022. The mining lease will remain in operation upto 2027.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Existence of plantation is there on slopes of the dump, along the road and other part of lease area. Additional plantation is not proposed during the year.	100 Plantation has done outside lease area during the year 2015-16.	Due to FC & tree cutting permission, no plantation has carried out in lease area.

8g	Survival rate	No proposal	Survival rate is around 60 to 70% for previous plantation
8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for water sprinkling on haul roads.	Water sprinkling on road is observed during the inspection.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Nil	Surrounding area beyond lease area is greenery and lessee has carried out plantation on dump, along road etc.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Both Annual & Monthly returns are submitting in online system.	Submitted with time limit	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Technical persons are appointed	During Inspection all the Technical persons are present.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use pattern is updated based on recent survey	Land use pattern is coinciding with approved Review of mining plan	
9d	Scrutiny of Annual return on afforestation	Nil	Inside lease area there is no plantation has been planted due to FC & tree cutting permission. Whereas outside lease area 100 plants has planted.	
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 Stack = 3168 tons Grade 50 to 52%	ROM has not processed due to FC & tree cutting permission.	

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9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production = Rs.547/ton. Sale value & Ex.Mine Price = Zero	Mine is working, but there is no dispatch.
9h	Scrutiny of Annual return on fixed assets	Filled	Fixed assets filled properly
9k	Scrutiny of Annual return on mining machineries	Wheel Loader and water tanker	Mining machineries are common for adjoining Lease also

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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

**Date :**

**(G. S. KANNAN)**

Indian Bureau of Mines