

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

**MCDR INSPECTION REPORT**

**Goa regional office**

**Mine file No :** MAH/KLP/Bx-9/GOA

**Mine code :** 07MSH13008

- (i) Name of the Inspecting : **J003** ) **JANGID G K**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Amrit Sable (Mines Manager)  
Official with  
Designation
- (iv) Date of Inspection : 26/05/2014
- (v) Prev.inspection date : 19/07/2013

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **GIRGAON**
- (b) Category : A Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
- State : MAHARASHTRA
- District : KOLHAPUR
- Village : GIRGAON
- Taluka : SHAHAWADI
- Post office : YELWANJUGAI
- Pin Code : 415101
- FAX No. : 0831-2429968
- E-mail : pkulkarni2007@yahoo.co.in
- Phone : 0831-2427187, 9880025007
- (e) Police Station : SHAUWADI
- (f) First opening date : 20/12/2000
2. Address for : Bharatesh Construction Company  
correspondance : 34/35, Corporation Complex,  
Goa-Ves, Hindwadi, Belgaum-590011
3. (a) Lease Number : MSH0243
- (b) Lease area : 71.42
- (c) Period of lease : 30
- (d) Date of Expiry : 04/02/3032
4. Mineral worked : BAUXITE Main

## 5. Name and Address of the

Lessee : BHARTESH CONSTRUCTION COMPANY  
 Shop No-34, Corp. Complex  
 Goaves, Hindwadi, BELGAUM  
 KARNATAKA  
 Phone:0831-2427187  
 FAX :0831-2429968

Owner : SURENDRA T KODACHWAD  
 SHOP NO-34/35, CORPORATION  
 COMPLEX GOA-VES, HINDWADI  
 BELGAUM KARNATAKA  
 Phone: 0831-2427187  
 FAX : 0831-2429968

Agent : KRISHNA SHATTUPPA PATIL  
 SANDEEP NIWAS, H.NO. 785 5TH  
 MAIN, 1ST CROSS, GANESH RD.  
 VAIBHAV NAGAR, BELGAUM  
 BELGAUM KARNATAKA  
 Phone: 0831 - 2471597 ,2427187  
 FAX : 0831 - 2429968

Manager

Name : Shri Amrit Sable

Qualification : Diploma in Mining & mine Survrying & I s

Appointment/ : 11/04/2013

Termination date

6. Date of approval of Mining : 28/03/2012  
 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

Employment category	No.of employment	Av. yearly working days
<b>DIRECT</b>		
Managerial	1	275
Supervisory	5	275
Others	0	0
Ministrial	0	0
Plant	0	0
Workers	35	275

**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>					
Water supply	0.00	1.50	0.00	5.00	
Sanitation	0.00	0.50	0.00	2.50	
Housing	0.00	0.00	0.00	0.00	
Safety	0.00	0.75	0.00	2.10	
Medical facility	0.00	0.20	0.00	0.50	
Health	0.00	1.30	0.00	4.00	
<b>Sub total</b>	<b>0.00</b>	<b>4.25</b>	<b>0.00</b>	<b>14.10</b>	
<b>Infrastructure</b>					
Communication	0.00	0.00	0.50	2.50	
Electricity	0.00	0.00	3.50	10.00	
Public transport	0.00	0.00	0.00	0.00	
Roads	0.00	0.00	1.50	6.00	
<b>Sub total</b>	<b>0.00</b>	<b>0.00</b>	<b>4.25</b>	<b>18.50</b>	
<b>Sports activities</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Employment</b>	<b>0.00</b>	<b>0.00</b>	<b>30.00</b>	<b>85.00</b>	
<b>Environment management</b>	<b>0.00</b>	<b>0.00</b>	<b>1.50</b>	<b>13.20</b>	
<b>Recreation</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Training</b>	<b>0.00</b>	<b>0.00</b>	<b>0.30</b>	<b>0.50</b>	
<b>Others</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
<b>Total</b>	<b>0.00</b>	<b>0.00</b>	<b>41.55</b>	<b>131.30</b>	

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

Mine was last inspected on 19.07.2013 and no violation was observed of MCDR 1988. Violation for rule 13(1), 27(4) and 23(E)2 of MCDR was issued after current inspection.

**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 is not recommended. However, if lessee failed to comply rule 13(1) within stipulated time, followup action will be initiated for logical end.

## 5. Scientific Mining

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

- a.Type of prospecting : Additional and exploration i.e. pitting, drilling exploration was not proposed. Additional exploration was not carried out.
- b.Total area covered : Not applicable. Not applicable for 2013-14. During 2012-13, 62 boreholes drilled for total 248m drilling at 50m X 50m grid interval.

## B. Working (Rule 13)

- a.Number and size of each pit (LxWxH) : Pit development in between grid lines N1862913-N1863383, E379946-E380053 was proposed. Three pits are spread in between grid lines N1862860- N1863383, E379835-E380520. The size of pits are active Pit-3 of 600m X 320m X 5m, active Pit-2 of 500m X 90-120m X 4.8m and backfilled pit-1 of 120m X 70m X 4.5m. Actual bauxite is of 3-5m thickness as against 10m shown in approved SOM.
- b.Bench size(LxWxH)length can be defined as regular/irregular : Regular two benches in mineral were proposed of 4-5m height. Regular one bench is there in both active working pit of 4-5m height as per thickness of bauxite. Bauxite is of 4-5m thickness in both working pits.
- c.Ore to waste ratio pit wise if possible otherwise for mine : There is no OB; however mineral reject was anticipated with 1: 0.08 ratio. There is no OB; however with mineral reject ore to OB ratio is 1: 0.1.
- d.Total area covered under excavation/pits : An area over 18ha was proposed for development & production from pits. Area covered under pits is more than 25ha due to less thickness of bauxite. Modification in scheme of mining is required immediately for the year 2014-15. Area over 4.10ha of the pits is used for backfilling with reject material.

## C. Waste disposal (Rule 13)

- a.Location of dumps : No proposal for dumping, as backfilling was proposed. Backfilling is continuing in Pit-2 and around 3.3ha of Pit-2 and 0.8ha of Pit-1 has been backfilled.
- e.Yearly generation of waste quantity. : Reject generation of 25000t was proposed. Topsoil generation of 31400t was also anticipated. Reported reject generation is 29000t during 2013-14 and cumulative quantity is 84050t.
- b.Method of dumping whether : Not applicable. Not applicable.

advancing/retreat

c.Total area covered under waste dump. : Not applicable. Total 2.95ha area under backfilling at the end of 2013-14 was proposed. Not applicable. Total 4.10ha area under backfilling at the end of 2013-14 is there.

d.No.and size of each waste dump with No of steps/lift/bench : Not applicable. Not applicable. Backfilling over 3.3ha in Pit-2 and 0.8ha in Pit-1 is there at the end of year.

#### D. Production

b.Year wise production of last five year. : Last five-year proposals for production were 158000t, 166930t, 154225t, 300000t and 300000t. Last five-year actual production was 199985t, 166930t, 49400t, 279153t and 288190t from 2009-10 to 2013-14. There was no approved SOM from 2010-11 to 2011-12 and scheme of mining was approved on 28.03.2012 for balance period upto 2014-15. Mines was suspended on 23.12.2011 and revoked on 11.04.2012.

#### D. Reserve

a.Reserve position as per latest MP/MS and at the time of inspection. : Reserves as per approved SOM are as follows: Under 111 - 1201225t and 122 - 140400t as on 01.04.2011. Reserves as on date of inspection are as follows: Under 111 - 701500t and 122 - nil.

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

<b>BAUXITE</b>		
Category	Quantity in Tonnes	Grade
Proved	724880	Al <sub>2</sub> O <sub>3</sub> - 47-51%
Probable	0	
Possible	0	
Total	724880	

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

Mineral	Production	Unit
BAUXITE	288190	TON

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

- Efforts for improving low grade and sub grade mineral. : All grade of mineral i.e. +35% to -40% Al<sub>2</sub>O<sub>3</sub>, +40% to -45% Al<sub>2</sub>O<sub>3</sub>, +45% to -50% Al<sub>2</sub>O<sub>3</sub> and +50% to -55% Al<sub>2</sub>O<sub>3</sub> grades is sold to M/s Bhoomi Resources Pvt Ltd. Low grade is used in cement plants and sub-grade generation is not there. High grade is exported.
- Efforts for improving percentage of recovery of ore. : Recovery is satisfactory, as it is more than 90%. Reject generation was 29000t from total ROM handling of 317190t. It is mainly high silica & high iron material.

**Mineral Rule 15**

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : Waste generation is nil and recovery is almost 100% from platue area. Grade wise incidence is High grade (A) -3-5%, Medium grade (B) - 80% and low (Cement) grade (C) - 15-20%.
- Number of benches in ore and waste. : There are one bench in all the pits. Avg. Ht. of Bench in mineral is 3.5-5.0m. with Avg. Width of 10m.

**Sub/grd mineral/fines (Rule16)**

- Qty of yearly generation and total qty available during inspection with grade : Mineral is sorted out in +35% to -40% Al<sub>2</sub>O<sub>3</sub>, +40% to -45% Al<sub>2</sub>O<sub>3</sub>, +45% to -50% Al<sub>2</sub>O<sub>3</sub> and +50% to -55% Al<sub>2</sub>O<sub>3</sub>. Closing stock as on 31.03.2014 was 35% to -40% Al<sub>2</sub>O<sub>3</sub> nil, +40% to -45% Al<sub>2</sub>O<sub>3</sub> 20213t, +45% to -50% Al<sub>2</sub>O<sub>3</sub> 21322t and +50% to -55% Al<sub>2</sub>O<sub>3</sub> nil.
- Number and size of each stack : Not applicable. Two screen plants are in operation and number of stacks are more than 9-10. Daily grade analysis is carried out for sale of mineral to M/s Bhoomi Resources Pvt Ltd.
- Location of stacking. : Mineral is stacked inside the pits, as mobile crusher & screen plants are movable & operational within pit.
- Separate stacking from waste : Yes, ROM material after crushing is directly feed in crusher & screen plant for grade wise separation. Mineral reject is backfilled inside worked out area.
- Total area covered for stacking : Not applicable, as it is within pits.

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

No. of Boreholes	No. of Pits	No. of Trenches
62	0	0
0	0	0

**OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014**

Overbuden/waste removed (in m3) : 12500

**Utilisation of Sub Grade Mineral and Mineral Rejects**

Generated	Utilised	Stacked	(In Ton.)

## 7. Environment Management - both quantitative and qualitativ

### A. Land environment

- a. Landscape. : RL :Minimum :- 891m., Maximum :- 991m. The Lease area is having undulating topography over top of hillock.
- b. Aesthetic environment : Lease area is on high altitude compared to surrounding area. Plateau is having barren land, whereas sloping part and valley is having dense afforestation.
- c. Soil and land use pattern : The Lease area is covered with Laterite which is acting as topsoil for plantation on slope of hillock. Negligible topsoil is there. Area under pits is around 28ha.
- d. Agriculture : The Lease area is mostly having shrubs. No agricultural area within lease. Rice, groundnut, Mango are agricultural crops cultivated in surrounding lease areas.
- e. Forest(flora and fauna) : Lease area is granted over non-forest land.
- f. Vegetation : Natural vegetation in the form of shrubs is there in lease area with dense trees on slope of hillocks. Surrounding Lease area occupied by vegetation like Mango, Tamarind, Bawne.
- h. Public building, places and monuments (protected, historical), place of worship and places of tourist : There is no Public building, places and monuments (protected, historical), place of worship and places of tourist within lease area and its buffer zone.

### B Water environment.

- a. Surface water : Bauxite mining operation does not dispose off any effluent in the watercourses. The area receives normal 3000-3500mm rainfall & it is hilly terrain.
- b. Ground water : The bauxite mining operations are confined to 4 to 5m from surface. The bauxite mining operations on the plateau does not have adverse impact on ground water.
- c. Quality of water : There are no any effluents generated from Mining Operations. Water is naturally flowing in nalah, although land degradation is causing erosion and washouts during monsoon. Drainage is made all along the approach road.

### C. Air environment

- a. Noise : Mining operations are with excavators and jaw crusher with screens is used for separation of different grades of material. Noise level is within permissible limit, as no habitants are there within buffer zone. Deephole blasting is also carried out in the mine.
- b. Air : Continuous air quality monitoring is carried out, proper maintenance of road is there for transportation of minerals from working pits to adjoining state highway road.
- c. Climatic condition : The climatic condition of the area is hilly terrain and receive more than 4000mm rain. Dense afforestation is there in surrounding valley area and slope of hillocks.

### D. Socio economic environment

- a. Social and demographic profile. : The mine is situated in the part of western ghat hilly terrain area. The main occupation of the people is rain depended farming. Due to uneven topographic condition & less availability of the soil, the agricultural output is comparatively low & there is no major industries in the area. The mining operations is providing direct & indirect employment to more than 150 persons.
- b. Recommending health and safety. : Moderate amount of dust generated is being suppressed by water sprinkling by water tankers. Bauxite does not contain any toxic elements. Hence the possibility of any health hazards is minimum.
- c. Human settlement : There is No Human Settlement in Lease area. Nearby Surrounding villages are Girgaon, Dhangarwadi, Dhanewadi, Burambal, Ringewade, Mahalawadi, Guraowadi and Patewadi and occupied with thin Human Settlements below 1000 each.
- d. Recreational facility. : There is rest shelter, canteen, toilets constructed for mine officials in the mine. Peoples are resigning in nearby villages and Shauwadi. Cable TV is available every where now a days and this is kind of recreation to local villagers.

**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>		
Within lease area			Outside lease area		
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate
1.5	3296	80	0	0	0

Area in Hect.

<u>TOP SOIL MANAGEMENT</u>		
<u>Quantity as on 31/03/2014</u>		
Cumulative quantity in tonne		
Generated	Utilised	Balance
.01	.01	0



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

Annual Return for 2013-14 not yet submitted so far.

Details of Annual return of 2012-13 are as follows:

a) Land use pattern ;- utilized area 20 ha

b) Reserves:- 846160 t.

c) Quantity of overburden / waste rock generation.:- 25500t in 2012-13 & 29000t in 2013-14.

d) Production and Sale & dispatch figures for domestic consumption :- 279135t and 279135t.

e) Cost of production during 2012-13.:- 200/- Rs

**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.**

Mining lease over 140.20ha non-forest land was granted for 30 years from 22.04.2000 to 21.04.2030. Lease was executed on 08.12.2000.

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

First mining plan for grant of lease was approved vide letter No MP/MAN-424(MAH)/GOA/2000-01 dated 07.12.2000 for category B Manual mine. Subsequently modified mining plan was approved vide letter no MP/MAN-424(MAH)/GOA/2000-01V-I dated 17.10.2002 for category B Manual mine. First scheme of mining was approved vide letter No. MSH/OTF.MECH-04(MAH)/GOA/05-06 dated 16.09.2005 for Category A mechanised mine. Second scheme of mining was approved vide letter No. MSH/OTF.MECH-21MAH)/GOA/11-12 dated 28.03.2012 for Category A mechanised mine. Mines was suspended on 23.12.2011 and suspension was revoked on 11.04.2012 after approval of scheme of mining.

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

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

None at present.

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

None at present.

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

None at present.

**Date :**

(JANGID G K)

Indian Bureau of Mines