

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

MCDR INSPECTION REPORT

Goa regional office

Mine file No : MAH/KLP/BX-16/GOA

Mine code : 07MSH13016

- (i) Name of the Inspecting : **J003**) **JANGID G K**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh Gajanan Palav, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 06/02/2016
- (v) Prev.inspection date : 10/12/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MINCHE BUDRUK (98)**
- (b) **Registration NO.** : **IBM/8369/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : MAHARASHTRA
- District : KOLHAPUR
- Village : MINCHE BUDRUK
- Taluka : BHUDARGAD
- Post office : MINCHE BUDRU
- Pin Code : 416223
- FAX No. : 0231-2525890
- E-mail : panditraomine@rediffmail.co
- Phone : 0231-2324263, +91942367898
- (f) Police Station : GARGOTI
- (g) First opening date : 12/11/2004
- (h) Weekly day of rest : SUN
2. Address for : VILLAGE - MINCHE,
correspondance : TALUKA - BHUDHARGAD,
DISTRICT - KOLHAPUR.
3. (a) Lease Number : MSH0332
- (b) Lease area : 98
- (c) Period of lease : 30
- (d) Date of Expiry : 29/10/2033
4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : PANDITRAO MINES & MINERALS PVT. LTD.
 Anant Bld C Vasant viswas
 park B1 Nale Colony, Devkar
 Paland Corner, Karveer
 KOLHAPUR MAHARASHTRA
 Phone:0231-2324263, 9421113167
 FAX :0231-2525890

Owner : SRI KRISHNA ANANT PANDIT RAO
 ANANT Bld C, R.S. NO. 747,
 A- WARD Nale Colony, Devkar
 Paland Corner, B-1, VASANT
 VISHWAS PARK KOLHAPUR
 MAHARASHTRA
 Phone: 0231-2324263
 FAX : 0231-2525890

Geologist

Name : RAIBAGKAR SHIVPRASAD GAJANAN, Full Time
 Qualification : M.Sc Geology
 Appointment/ : 01/07/2013
 Termination date

Manager

Name : GAJANAN B PALAV
 Qualification : Diploma Mining with firrst class mines
 Appointment/ : 01/08/2005
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	26/09/2003
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	25/09/2006
	:	Mining Scheme rule 12 MCDR1988	09/09/2008
	:	Mining Scheme rule 12 MCDR1988	24/06/2014

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Twelve boreholes were proposed during 2013-14.	These twelve boreholes are still not drilled.	
1b	Exploration over lease area for geological axis 1 or 2	Total 49 DTH boreholes were drilled with 745m drilling over 22.71ha flat plateau area at 100m grid interval and 45 trail pits were made over float ore sloping area. Reserves are proved in category G-1 and G-2 along with category 333 of 524544 tonnes.	Total 49 boreholes were drilled with 745m drilling over flat plateau area and 45 trail pits were made over float ore sloping area. Additional exploration is not carried out. Bauxite is shallow in depth of 5-6m.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	DTH holes were drilled by lessee himself and cost details is not given.	DTH holes were drilled by lessee himself and cost details is not given. Approximate cost will be Rs.10000/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Total lease area is 96ha and 22.71ha plateau area has been explored by DTH holes and 45ha float area by trial pits. Remaining 18.29ha has to be explored with 12 boreholes proposed.	Total lease area is 96ha and 22.71ha plateau area has been explored by DTH holes and 45ha float area by trial pits. Remaining 18.29ha has further down side of float ore and mostly basalt is exposed at surface. So possibility of any float ore is negligible.	

1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2015 were 1907719 tonnes in category 111 and 57920 tonnes in 122 and 201600 tonnes in 331 category. The scheme of mining was approved on 24.06.2014 with proposals from 2013-14 to 2017-18.	Balance reserves as on 01.04.2015 were 1907719 tonnes in category 111 and 57920 tonnes in 122 and 201600 tonnes in 331 category.
1f	General remarks of inspecting officers on geology, exploration etc	Nil	The bauxite is marginal grade for alumina use and mostly having laterite capping with marginal grade bauxite. It is mainly sold to cement plants and minor quantity in alumina plants. Further, demand from cement plants has been reduced during 2015-16 due to use of laterite available from nearly laterite mines to reduce transport cost.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposal was to develop & advance western face of Pit-1, north-eastern face of pit-2 and SE face of Pit-2 & north face of Pit-3 for insitu bauxite production.	Advancement on western face in Pit-1 was more than planned during 2013-14, north side advancement in Pit-2 & Pit-3 and new Pit-4 merged with Pit-3 during 2014-15 & 2015-16 as per proposals.	Violation of rule 13(1) issued for modification in SOM.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Thin laterite capping is OB. Separate benches were not proposed.	Separate benches are not required due to no topsoil and thin capping of hard laterite.	

2c	Stripping ratio or ore to OB ratio	Ore to OB ratio was not anticipated as perSOM; as topsoil and OB generation was not planned.	Ore to OB ratio is 45.	
2d	Quantity of topsoil generation in m3	Nil	Nil; but it is there during float ore area mining.	
2e	Quantity of overburden generation in m3	Laterite capping is there as OB and it is included in ROM production.	11111t OB generation was reported during 2014-15; which is laterite.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	There is no possibility of 60m advancement on eastern face of Pit-2 for insitu bauxite mining as per proposals approved for 2013-14 to 2017-18.	Western face of Pit-2 is being advanced during 2014-15 and 2015-16.	The modification in Scheme of mining is still pending.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working in all three pits was proposed for insitu production along with float ore mining.	Advancement on western face in Pit-1 was more than planned during 2013-14, north side advancement in Pit-2 & Pit-3 and new Pit-4 merged with Pit-3 during 2014-15 & 2015-16 as per proposals.	
3b	Quantity of ROM mineral production proposed	ROM production of 493632 tonnes was proposed.	ROM production of 470612 tonnes was reported.	
3c	Recovery of sailable/usable mineral from ROM production	The recovery of ore from ROM was planned 100% after crushing & screening.	The recovery of ore from ROM was 100% after crushing & screening. The graded ore is being sold to traders.	

3d	Quantity of mineral reject generation	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA
3f	Quantity of sub grade mineral generation.	Nil	Nil
3g	Grade of sub grade mineral generation	NA	NA
3h	Manual / Mechanised method adopted for segregating from ROM	Diesel operated mechanical crusher & screen plants was proposed.	Diesel operated mechanical crusher & screen plants (three numbers) are in use for grade wise production of bauxite. Alumina grade of +41 to -45% % Al ₂ O ₃ and cement grade of ore are produced.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Analysis of Mineral reject was proposed; but beneficiation study was not proposed.	Analysis is being carried out regularly for maintaining the salable ore grade; being sold at mine head to the trader i.e. M/s Gamma Iron India Ltd. .
3j	Provision of drilling and blasting in mineral benches	Yes, 100m dia deep hole drilling & blasting is proposed for 6-7m depth.	100m dia deep hole drilling & blasting is in use for 6-7m depth and spacing & burden at 2.5m & 3.0m.
3k	Provision of mining machineries in mineral benches	Yes, backhoe excavators were proposed for excavation of blasted material.	Backhoe excavators of 0.9m ³ bucket capacity were proposed for excavation of blasted material. 350cfm compressor are in use for drilling of holes. 15 numbers 10t tippers are used for handling of ore upto mobile crusher.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes, it is shallow depth mining maximum height upto 6-7m.	Yes, it is shallow depth mining maximum upto 8-10m with negligible overburden.

3m	Total area covered under excavation/pits	Total area proposed under pit was 15.00ha for plateau area mining along with float area over 20ha as per SOM.	Total area under pits was 13.00ha as on 01.04.2015 i.e. end of the year.
3n	Ore to OB ratio for the pit/mine during the year.	Ore to OB ratio was zero due to no topsoil and OB generation as per SOM.	Ore to OB ratio was 45:1 during the year.
3o	Total area put in use under different heads at the end of year	Area under pit- 15.0ha, area under dump-4.50ha, roads-0.50ha.	Area under pit- 13.00ha, area under dump-4.36ha, roads-0.50ha at the end of 2014-15.
3p	Production of ROM mineral during the last five year period as applicable	Proposed production was 425000t, 489400t, 433700t, 435776t, 493632t from 2010-11 to 2014-15 respectively.	Actual production was 166300t, 268030t, 390535t, 547525t, 470612t from 2010-11 to 2014-15 respectively.
3q	General remarks of inspecting officers on method of mining etc.	Nil	The method of mining is satisfactory with the shallow depth bauxite deposit. However, width of the pits are less than length for concurrent reclamation of mined out area.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Topsoil and OB dumps were not proposed.	Topsoil and OB dumps are not made.	
4b	Location of topsoil, OB and mineral reject dumps	Sub-grade stack was proposed at NW corner of lease.	Topsoil generation was nil for plateau area during 2014-15. Sub-grade stacks of screen fines are made near crusher.	

4c	Number of dumps within lease area and outside of lease area	Topsoil and OB dumps are not proposed within and outside the lease.	Topsoil and OB dumps are not made within and outside the lease.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	It is shallow depth mining maximum upto 7-8m and sub-grade stacks were proposed adjoining to pits at two loactions.	It is shallow depth mining maximum upto 7-8m and sub-grade stacks are located inside or adjoining pits.
4e	Number of active and alive dumps.	Two	Two sub-grade stacks are made.
4f	Number of dead dumps.	Nil	Nil
4g	Number of dumps established.	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall towards slope side was proposed near crusher stack.	Retaining wall towards slope side was made near crusher stack.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall of 300m was proposed.	Retaining wall of 250m is made.
4j	Number of settling ponds	Nil	One pond is made in Pit-1 for storage of rainy water for water sprinkling by excavation in lithomarge clay; which retains water.
4k	Specific comments of inspecting officer on waste dump management	Nil	Nil

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.	Backfilled material is not available and not planned.	Backfilled material is not available and not made.	

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)	Negligible or no topsoil is available on the plateau area.	Negligible or no topsoil is available on the plateau area.
5d	Total area fully reclaimed and rehabilitated	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Nil	Reclamation and rehabilitation of float ore area will be feasible; as topsoil is available there.

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).	Proposed to submit by 1st July 2015.	Not submitted.	Violation letter issued for rule 23(E)2.
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	10000 saplings were proposed over mined out 10.92ha float ore area during 2014-15.	2050 saplings were planted on slopes of the hillock.	
6d	No. of saplings planted during the year	10000 saplings were proposed over mined out 10.92ha float ore area during 2014-15.	2050 saplings were planted on slopes of the hillock over 1.0ha area.	

6e	Cumulative no .of plants	No proposals were made during last five-year scheme and 10000 saplings each were proposed during 2013-14 and 2014-15 over float ore mined out area.	Total 22813 saplings were planted over 5.65ha area as on date.
6f	Any other method of rehabilitation	Nil	Nil
6g	Cost incurred on watch and care during the year	Not estimated	Not estimated.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	An area over 10.0ha was proposed by backfilling.	Backfilling is not carried out so far.
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	Water reservoir is made in Pit-1.
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	An area over 5.65ha has beeb planted in the past and additional area was not proposed.	An area over 5.65ha has beeb planted in the past.
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 environment monitoring is required and report has to be sent to IBM Regional office.	Quarterly environment monitoring is carried out through private agency.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Nil	Float ore mining is negligible against proposals and therefore, concurrent reclamation is negligible.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting of ore is proposed within lease area.	Grade-wise sorting of ore is carried out within lease area during crushing & screening operations. Mineral is screened in -12mm size and +12mm size. Alumina grade is +12mm and cement grade is -12mm.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical diesel operated mobile screen plants is proposed.	Two mechanical diesel operated mobile screen plant is in use.	

7c	Different grade of mineral sorted out at mines.	The grades of bauxite estimated in the mining plan are +35-40% Al ₂ O ₃ , +40-45% Al ₂ O ₃ and cement grade.	The grades of bauxite reported in the annual return of 2014-15 are +40-45% Al ₂ O ₃ and Cement grade Bauxite. 42% Al ₂ O ₃ bauxite production was 90000t and cement grade 341347t was reported during the Year.
7d	Any beneficiation process at mines .	No	No, mechanical crushing and screening is carried out by two-three diesel operated mobile plants.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Nil	The nearby cement plants in Bagalkot and Gulbarga district started buying laterite, a minor mineral and therefore, stacks of fines of cement grade bauxite are lying within lease area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Nil	Nil	
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Mineral reject dumps were proposed.	Screen fines has been separately stacked.	
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	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No proposals were made during last five-year scheme and 10000 saplings each were proposed during 2013-14 and 2014-15 over float ore mined out area.	Total 22813 saplings were planted over 5.65ha area as on date. Natural afforestation is there on slopes of the plateau.
8g	Survival rate	Survival rate was planned as 80%.	Achieved survival rate is 75%.
8h	Water sprinkling on roads to control airborne dust	Use of water tankers for water sprinkling was proposed.	Water tanker is being used to control the dust on haul roads.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Nil	Nil

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	2014-15 : Annual return was submitted in hard copy on 29.06.2015.	It is print out of draft submitted in online system. Final copy in online system not submitted.	

- 9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager Sh Suresh N. Gade was working as Mines Manager, who is Diploma FCC certificate. Appointment of Mining Engineer and Geologist is kept blank. Sh Suresh N. Gade was working as Mines Manager during 2014-15, who is Diploma in mining with FCC certificate. He was terminated on 31.07.2015 and Shri Gajanan Palav joined as Mines Manager on 01.08.2015. Mining Engineer and Geologist are not appointed in the mines.
- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. Land use pattern: Area under pit - 13.00ha, area under dump - 4.36ha, area under plant - 0.50ha. Information given looks correct.
- 9d Scrutiny of Annual return on afforestation Total 2050 number of saplings were planted. Yes, saplings were planted in the mined out area of Pit-1, where water reservoir is also made to store raint water for water sprinkling.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) Mineral reject generation was not reported. Mineral reject generation was not there, as fines was sold to cement plants.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock and production was : Opening stock - 19779.44 tonnes, Production - 470612.15 t and closing stock - 59044.24 t. Grade-wise opening stock of 42% Al2O3 - 0t, Production - 90000t and closing stock - 588.49t. Grade-wise opening stock of Cement grade - 229842.16t, Production - 341347.35t and closing stock - 61370.605t.	ROM and grade-wise production reported in A.R. is in order. Production of cement grade bauxite was more during 2014-15; however demand from nearby cement plants located in Karnataka has been reduced during 2015-16, as corrective additives by use of laterite available in nearby location is adopted. There are heaps of low grade cement grade bauxite in the mines.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value of 42% Al2O3 is Rs. 410.00/- and cement grade is Rs. 185.00/-. Ex. mine price of 42% Al2O3 is Rs. 410.00/- and cement grade is Rs. 185.00/-. Production cost - Rs. 174.00/-.	Sale value and Ex. mine price are same; as bauxite is sold to trader before final end use in Alumina plant at Belgaum. The trader Gamma Iron India Ltd. is raising contractor at mines. The vale of salable mineral reported as Rs. 218.14/- to Gamma Iron India Ltd. including +42% Al2O3 and cement grade. The price of +40% Al2O3 is above Rs. 1400/- per tonne by end user.
9h	Scrutiny of Annual return on fixed assets	Fixed assests detail is not given.	All the fixed assests ie.building & machineries belongs to M/s Gamma Iron India Ltd., who is having trader and storage licence. Total land is waste land as per return.

9k Scrutiny of Annual return on mining machineries Two hydraulic shovels of 0.9cum bucket, two air compressor of 350cfm, two tippers of 3.8cum and three water tanker of 8000 ltrs are indicated. Five hydraulic shovels of 0.9cum bucket, two air compressor of 350cfm, six Tata dumpers of 25tonnes and one water tanker of 8000 ltrs are observed during inspection.

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
Rule 13(1)	01/03/2016				
Rule 23E(2)	01/03/2016				
Rule 45(5)(b)	01/03/2016				
Rule 63	01/03/2016				

Date :

(JANGID G K)

Indian Bureau of Mines