

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

**MCDR inspection REPORT**

**Hyderabad regional office**

**Mine file No :** AP/ADB/MN-30/HYD

**Mine code :** 40APR01018

- (i) Name of the Inspecting : **K007** ) **SHAIVAL KARTIKEYA**  
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri Pradeep Pimpalshende, Mining Engineer  
Official with  
Designation
- (iv) Date of Inspection : 22/02/2023
- (v) Prev.inspection date : 31/12/2020

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **BHORAJ(122.65 HA)**
- (b) **Registration NO.** : **IBM/733/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : **TELANGANA**
- District : **ADILABAD**
- Village :
- Taluka :
- Post office :
- Pin Code :
- FAX No. : **NA**
- E-mail : **besyml@gmail.com**
- Phone : **9822033153**
- (f) Police Station : **JAINATH**
- (g) First opening date : **17/04/2015**
- (h) Weekly day of rest : **SUN**
2. Address for : **M/s Balaji Electro Smelters Ltd.,**  
correspondance **Post Box 26, Plot No.B-18, MIDC, LOHARA**  
**YAVATMAL-445001**
3. (a) Lease Number : **APR2411**
- (b) Lease area : **122.59**
- (c) Period of lease : **50**
- (d) Date of Expiry : **13/07/2059**
4. Mineral worked : **MANGANESE ORE** Main

## 5. Name and Address of the

Lessee : BALAJI ELECTRO SMELTERS LTD  
PLOT NO.B-18, MIDC YEOTMAL  
MAHARASHTRA  
Phone:07232 245048  
FAX :

Owner : BALAJI ELECTRO SMELTERS LTD.  
PLOT NO. 18, MIDC, LOHARA  
YEOTMAL MAHARASHTRA  
Phone: 07232 245048  
FAX : 07232 244048

6. Date of approval of Mining	:	MP review under 17(1) MCR 2016	03/11/2016
Plan/Scheme of Mining		MP review under 17(1) MCR 2016	03/05/2019
		MP modif under 17(3) MCR 2016	06/12/2021

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	F.Y. 2021-22: 35 nos. of DTH boreholes with cumulative depth of 315.0 meters.	None of the boreholes have been drilled.	Violation has been pointed out.
1b	Exploration over lease area for geological axis 1 or 2	72.92 Ha. unexplored will be converted in to detailed exploration (G1 Level)	No exploration has been done.	-do-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned in the approved document.	Nil.	-do-
1d	Balance area to be explored to bring Geological axis in 1 or 2	72.92 Ha. unexplored will be converted in to detailed exploration (G1 Level)	No exploration has been done.	-do-
1e	Balance reserve as on 01/04/20	Balance reserves as on 01.04.2022 Under (111): 0.006862 Million Tonnes	Balance reserves as on 01.04.2022 Under (111): 0.006862 Million Tonnes	Updated reserves has been obtained from the latest approved Modified Mining Plan dated 06/12/2021

1f	General remarks of inspecting officers on geology, exploration etc	The mining lease area and its surroundings are formed by sedimentary formation consisting of thin bands of shaly/silicious limestone of Penganga formation. Soil, Silicious Limestone and Manganese Ore are the only geological formation encountered in the area. The manganese ore occurs below the upper limestone beds and more or less in horizontal stratiform layer of thickness 0.50 meter to 0.70 meters with clear litho-startigraphic control of its origin.
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## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	F.Y.2021-22: Proposed development in Pit No. 2 and 3 in between UTM co-ordinates N2183755 to N2183832 and E241555 to E241698	F.Y. 2021-22: Development and production has been done in Pit No. 2 and 3 in between UTM co-ordinates N2183755 to N2183832 and E241555 to E241698	-

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Proposal has been given in the approved document for separate benching of Topsoil, Overburden and Mineral/Ore. Topsoil: 01 no. Overburden: 02 no. Mineral/Ore: 01 no.	Separate benching has been maintained. Topsoil: 01 no. Overburden: 02 no. Mineral/Ore: 01 no.	-
2c	Stripping ratio or ore to OB ratio	1 : 3.13	1: 4.02	Stripping ratio has been increased due to less production of mineral/ore.
2d	Quantity of topsoil generation in m3	2257.30 CuM	1900.00 CuM	Less topsoil has been generated due to less production and development.
2e	Quantity of overburden generation in m3	5255.70 CuM	4000.00 CuM	-
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The development and production is being done through mechanized means.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	02 nos. (Pit no. 2 & 3)	02 nos. (Pit no. 2 & 3)	-
3b	Quantity of ROM mineral production proposed	2399.264 Metric Tonnes	995.00 Metric Tonnes	Violation has been pointed out for less production.
3c	Recovery of sailable/usable mineral from ROM production	80%	100%	-
3d	Quantity of mineral reject generation	F.Y. 2021-22: 599.816 Metric Tonnes.	F.Y. 2021-22: Nil mineral reject generated.	No mineral reject is present within the mining lease.

3e	Grade of mineral rejects generation and threshold value declared.	Not mentioned in the approved document.	Nil.	-do-
3f	Quantity of sub grade mineral generation.	No proposal.	Nil.	No mineral sub-grade was generated during F.Y. 2021-22.
3g	Grade of sub grade mineral generation	No proposal.	Nil.	-do-
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing and sorting has been proposed in the approved document.	Manual sizing and sorting is being done.	-
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal.	Nil.	-
3j	Provision of drilling and blasting in mineral benches	Drilling Machine: Jack Hammer with 25 mm dia. Spacing: 0.70 m Burden: 0.90 m Depth: 1.0 m Explosive: Ammonium Nitrate and detonator	Drilling Machine: Jack Hammer with 25 mm dia. Spacing: 0.70 m Burden: 0.90 m Depth: 1.0 m Explosive: Ammonium Nitrate and detonator	-
3k	Provision of mining machineries in mineral benches	1. Tippers/Dumper s 02 nos. with 10.0 CuM carrying capacity 2. Tractors 02 nos. with 3.0 CuM carrying capacity 3. Shovel/Back Hoe 01 no. with 0.90 CuM bucket capacity 4. Jack Hammer Drill 01 no. with 25 mm dia.	1. Back Hoe 01 no. with .09 CuM bucket capacity 2. Air Compressor 01 no. with 25.0 CuM/Mn capacity 3. Tractor/Jeep 02 nos. with 40 HP capacity	-

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Topsoil: 1.0 m Overburden: 3.0 m Mineral/Ore: 0.70 m	Topsoil: 1.0 m Overburden: 3.0 m Mineral/Ore: 0.70 m	Bench heights have been maintained.
3m	Total area covered under excavation/pits	0.30 Ha. up to end of F.Y. 2021-22	0.10 Ha. up to end of F.Y. 2021-22	-
3n	Ore to OB ratio for the pit/mine during the year.	1 : 3.13	1: 4.02	Stripping ratio has been increased due to less production of mineral/ore.
3o	Total area put in use under different heads at the end of year	Pit: 0.30 Ha. Waste/reject- 0.06 Ha. Others- 0.44 Ha. Up to end of F.Y. 2021-22	Pit: 0.10 Ha. Waste/reject- 0.03 Ha. Others- 1.85 Ha. Up to end of F.Y. 2021-22	Out of 1.85 Ha., 0.75 Ha. has been reclaimed and rehabilitated.
3p	Production of ROM mineral during the last five year period as applicable	Yr. 2017-18: 2002.000 Metric Tonnes Yr. 2018-19: 2043.000 Metric Tonnes Yr. 2019-20: 3448.000 Metric Tonnes Yr. 2020-21: 3548.000 Metric Tonnes Yr. 2021-22: 2399.264 Metric Tonnes	Yr. 2017-18: 2190.000 Metric Tonnes Yr. 2018-19: 1729.000 Metric Tonnes Yr. 2019-20: 1253.000 Metric Tonnes Yr. 2020-21: 1242.000 Metric Tonnes Yr. 2021-22: 995.000 Metric Tonnes	Violation has been issued for less production.
3q	General remarks of inspecting officers on method of mining etc.			Mining has been carried out through the opencast method with mechanized means using conventional drilling and blasting.

## Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposal has been given in the approved document for separate dumping of waste and stacking of mineral and topsoil.	Separate dumping of waste and stacking of mineral and topsoil have been done in the earmarked locations within lease area.	Generated topsoil will be spreaded over the backfilled area for restoration of the ground.
4b	Location of topsoil, OB and mineral reject dumps	In-between UTM co-ordinates  Topsoil: N2183784 to N2183811 and E241492 to E241526  Mineral/Ore: N2183763 to N2183792 and E241481 to E241521  Waste Dumps (04 nos.): N2183682 to N2183840 and E241473 to E241836	In-between UTM co-ordinates  Topsoil: N2183784 to N2183811 and E241492 to E241526  Mineral/Ore: N2183763 to N2183792 and E241481 to E241521  Waste Dumps (04 nos.): N2183682 to N2183840 and E241473 to E241836	-
4c	Number of dumps within lease area and outside of lease area	Topsoil: 01 no. Mineral/Ore: 01 no. Waste/OB: 04 nos.	Topsoil: 01 no. Mineral/Ore: 01 no. Waste/OB: 04 nos.	All the waste dumps are situated adjacent to the working pit for concurrent backfilling.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed beyond ultimate pit limit.	All the dumps are situated beyond ultimate pit limit.	-
4e	Number of active and alive dumps.	04 nos.	04 nos.	-
4f	Number of dead dumps.	No proposal.	Nil.	Concurrent backfilling is being done in the mined out pits.
4g	Number of dumps established.	No proposal.	Nil.	-do-
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal.	Nil.	-



4i	Length of Retaining wall or garland drain all along dumps	No proposal.	Nil.	-
4j	Number of settling ponds	No proposal.	Nil.	-
4k	Specific comments of inspecting officer on waste dump management			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.	Concurrent backfilling has been proposed in the approved document over 0.29 Ha. mined out area in Pit No. 2 and 3	Concurrent backfilling is being done over the 0.10 Ha. mined out area in Pit no. 2 and 3.	-
5b	Area under backfilling of mined out area	Pit no. 2 and 3: In 0.29 Ha in between UTM co-ordinates N2183755 to N2183826 and E241534 to E241698	Pit no. 2 and 3: In 0.10 Ha in between UTM co-ordinates N2183755 to N2183826 and E241534 to E241698	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposal has been given in the approved document for concurrent use of topsoil for spreading over the backfilled area and ground restoration.	Being done as per proposal.	-
5d	Total area fully reclaimed and rehabilitated	0.29 Ha.	0.10 Ha.	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Nil.

## 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).	As per rule 26(2), lessee has to submit the annual report before 1st day of July of every year.	Annual report on PMCP for F.Y. 2021-22 is not submitted.	Violation has been pointed out.
6b	Area available for rehabilitation (ha) .	No proposal.	Nil.	-
6c	afforestation done (ha).	No proposal.	Nil.	-
6d	No. of saplings planted during the year	No proposal.	Nil.	-
6e	Cumulative no .of plants	No proposal.	Nil.	-
6f	Any other method of rehabilitation	No proposal.	Nil.	-
6g	Cost incurred on watch and care during the year	No proposal.	Nil.	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	2171.0 CuM	2000.0 CuM	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	2171.0 CuM	2000.0 CuM	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposal.	Nil.	-
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	117 nos.	Not done.	Violation has been pointed out for nil plantation.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Along 7.5 m barrier zone	Not done.	-do-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	By plantation.	Not done.	-do-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposal has been given in the approved document for regular monitoring of the environmental parameters in the core and buffer zone.	Being done as per proposal.	All the parameters are within the permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Nil.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual sorting has been proposed for grade wise segregation of the mineral/ore.	Manual sorting is being done for below 25% Mn and 25% and below 35% Mn	-

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	-do-	-do-	-
7c	Different grade of mineral sorted out at mines.	Proposal has been given in the approved document for grade wise sorting of mineral/ore.	-do-	-
7d	Any beneficiation process at mines .	No proposal.	Nil.	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Nil.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Proposal has been given in the approved document for separate removal of 2563.60 CuM of topsoil and stacking in between UTM co-ordinates N2183784 to N2183811 and E241492 to E241526	1900.00 CuM of generated topsoil has been stacked in between UTM co-ordinates N2183784 to N2183811 and E241492 to E241526 also certain quantity has been utilized for ground restoration.	-
		Also generated topsoil will be spreaded over the backfilled area for restoration of the ground.		

8b	Concurrent use or storage of topsoil	Generated topsoil will be spreaded over the backfilled area for restoration of the ground.	Certain quantity of topsoil has been utilized for ground restoration.	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Proposal has been given in the approved document for separate dumping of waste and stacking of mineral and topsoil.	Separate dumping of waste and stacking of mineral and topsoil have been done in the earmarked locations within lease area. In-between UTM co-ordinates	-
		In-between UTM co-ordinates	Topsoil: N2183784 to N2183811 and E241492 to E241526	
		Topsoil: N2183784 to N2183811 and E241492 to E241526	Mineral/Ore: N2183763 to N2183792 and E241481 to E241521	
		Mineral/Ore: N2183763 to N2183792 and E241481 to E241521	Waste Dumps (04 nos.): N2183682 to N2183840 and E241473 to E241836	
		Waste Dumps (04 nos.): N2183682 to N2183840 and E241473 to E241836		
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposal has been given in the approved document for backfilling of 0.29 Ha. area through waste rock in between UTM co-ordinates N2183755 to N2183826 and E241533 to E241698.	0.10 Ha. area has been backfilled through waste rock in between UTM co-ordinates N2183755 to N2183826 and E241533 to E241698.	-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	0.29 Ha. will be backfilled with the waste rock.	0.10 Ha. has been backfilled. Nil plantation has been done.	Violation has been pointed out.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	117 nos. of saplings will be planted along 7.5 m barrier zone.	Nil plantation has been done.	-do-
8g	Survival rate	Not mentioned in the approved document.	-do-	-do-
8h	Water sprinkling on roads to control airborne dust	Proposal has been given in the approved document for water sprinkling on roads to control airborne dust through the water tanker.	Being done as per proposal.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Nil.

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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 April 2023. A.R. Submitted up to F.Y. 2021-22	M.R. Submitted up to April 2023. A.R. Submitted up to F.Y. 2021-22	Nil.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager: Nil. Mining Engineer: Shri Pradeep Pimpalshense Geologist: Nil.	Manager: Nil. Mining Engineer: Shri K. U. Jenek Pradeep Pimpalshense Geologist: Shri Balasaheb Pandit Rao Suryawanshi (w.e.f. 29/11/2021)	Nil.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 0.10 Ha. Waste/reject- 0.03 Ha. Others- 1.85 Ha.	Pit: 0.10 Ha. Waste/reject- 0.03 Ha. Others- 1.85 Ha.	Nil.
9d	Scrutiny of Annual return on afforestation	117 nos. with 40% survival rate.	Nil plantation has been done.	Violation has been pointed out.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral-reject: NIL Grade: NIL	Mineral-reject: NIL Grade: NIL	Nil.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock ROM: NIL Graded Ore: (i) Below 25% Mn: 0.550 Metric Tonnes. (ii) 25% to below 35% Mn: 66.659 Metric Tonnes.	Closing Stock ROM: NIL Graded Ore: (i) Below 25% Mn: 0.550 Metric Tonnes. (ii) 25% to below 35% Mn: 66.659 Metric Tonnes.	Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value: Rs. 7720917.88. Ex-mine Price: 25% to below 35% Mn: Rs. 8189.35 Per Metric Tonnes. Cost of Production: Rs. 5722.00 Per Metric Tonne	Sale value: Rs. 7720917.88. Ex-mine Price: 25% to below 35% Mn: Rs. 8189.35 Per Metric Tonnes. Cost of Production: Rs. 5722.00 Per Metric Tonne	Nil.

9h	Scrutiny of Annual return on fixed assets	Asset: Zero.	Asset: Zero.	Nil.
9k	Scrutiny of Annual return on mining machineries	1. Back Hoe 01 no. with .09 CuM bucket capacity 2. Air Compressor 01 no. with 25.0 CuM/Mn capacity 3. Tractor/Jeep 02 nos. with 40 HP capacity	1. Back Hoe 01 no. with .09 CuM bucket capacity 2. Air Compressor 01 no. with 25.0 CuM/Mn capacity 3. Tractor/Jeep 02 nos. with 40 HP capacity	Cross verified from the machinery logbooks.

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**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)	18/04/2023			
MCDR17	Rule 26(2)	18/04/2023			
MCDR17	Rule 31(4)	18/04/2023			
MCDR17	Rule 33	18/04/2023			

**Date :**

(SHAIVAL KARTIKEYA)

Indian Bureau of Mines