

**MCDR INSPECTION REPORT****1.0 GENERAL**

SN	Particulars	Details
1	Name of inspecting office & designation	Shri Ejaj Ahmad Khan, Assistant Mining Geologist Indian Bureau of Mines, Hyderabad
2	Accompanying Mine Official with Designation	Shri Pradeep Pimpalshende, Mining Engineer
3	Date of inspection	11-12-2024
4	Name of the Mine	Bhoraj Manganese Mine
5	Total Lease Area (Ha) with breakup of Non-forest and forest land	122.57 ha
6	Mine Code	40APR01018
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/733/2011
8	Name of the lessee, Address, phone, email and fax number	M/s. Balaji Electro Smelters Limited, Plot No 18, MIDC Lohara, Yavatmal (M.S.)- 445001 Contact No. 9822033153, Email-besyml@gmail.com
9	Village	Bhoraj
10	Taluka / Mandal / District	Mandal Jainath, District-Adilabad
11	State	Telangana
12	Post office & PIN	Bhoraj -504001
13	Nearest police station	Jainath
14	Nearest Railway station	Adilabad
15	Date of Grant of Mining Lease	31-01-2009
16	Date of Execution & Date of Expiry	14-07-2009 & 13-07-2029
17	Date of opening of Mine	17-04-2015
18	Date of first Renewal, if applicable and its period & expiry	NA
19	Date of second Renewal, if applicable and its period & expiry	NA
20	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
21	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Anup Kaparathi Plot No 17/18, Darda Nagar Near Water Tank Yavatmal-445 001 (M.S.). Contact No. 9822033153 Email - <a href="mailto:anupkparathi@gmail.com">anupkparathi@gmail.com</a>
22	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Nil
23	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Nil

24	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Pradeep Pimpalshende At Post Th - Korpana, District – Chandrapur (MS) Contact No: 9923383025 File No. Date of appointment : 01-03-2021
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Yes, Appointed
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Modified Mining plan approved Vide letter No AP/ADB/MP/Mn-30/Hyd dated:06-12-2021 Period:06-12-2021 to 31-03-2024
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Review of Mining plan approved Vide letter No AP/ADB/MP/Mn-30/Hyd dated:17-01-2024 Period: 01-04-2024 to 31-03-2027
28	Mineral(s) granted in lease and proved for mining	Manganese
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	A-Mechanised
31	Captive/Non Captive	Non Captive
32	Existing EC Limit and validity	4000 tonnes up to life of mine
33	Status of Financial Assurance as per rule 27 of MCDR, 2017	Financial assurance of Rs 10,00,000/- is submitted which is valid up to 31/03/2029

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

**1.0 Exploration**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
1a	Backlog of previous year	There was proposal in Year 2021-22 to do DTH holes (315 m).	21 DTH holes (315 m) work carried out.	
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	21 DTH holes (315 m) carried out over area of 72.92 ha.	The Entire potentially mineralised area has been converted into G1 level of exploration.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Self Expenditure not proposed	Self Expenditure Rs. 140567/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	Area under G1 level- 2.57 ha Non-mineralised are-120 ha.
1e	Balance reserves as on 01.04.2024 (in	As per approved RMP documents dated	Under (111): <b>8577</b> Tonnes	

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	Tonnes)	17.01.2024, Resource and reserve estimation as on 01.09.2023. Under (111): <b>9652.80</b> Tonnes Under (211): <b>65.69</b> Tonnes	Under (211): <b>65.69</b> Tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	The Geology of the lease area are belonging to Penganga formation which consists shaly/silicious limestone and Thin bands of Manganese ore. The manganese ore occurs below the upper limestone beds and more or less in horizontal layer of thickness 0.30 meter to 0.50 meters		

**2.0 Development**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
2a	Location of development w.r.t. lease area (Range in UTM/Local Coordinate/Plot No./Location)	In Pit-1 between the UTM-coordinate of N2183838-2183885 & E241309-241392	Development has been carried as per proposal UTM coordinate.	
2b	Separate benches in topsoil, overburden and mineral (Rule 13)	Topsoil: 01 no. Overburden: 02 no. Mineral/Ore: 01 no.	Separate benches have been maintained Topsoil: 01 no. Overburden: 02 no. Mineral/Ore: 01 no.	
2c	Stripping ratio or ore to OB ratio	1:3.05	1: 1.77	
2d	Quantity of topsoil generation in m <sup>3</sup>	3036 m <sup>3</sup>	2370 m <sup>3</sup>	
2e	Quantity of overburden generation in m <sup>3</sup>	4250.5 m <sup>3</sup>	3315 m <sup>3</sup>	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Mining operation has been carried out as proposed in approved Modified mining plan.		

**3.0 Exploitation**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
3a	Number of pits proposed for production	one	one	
3b	Quantity of ROM mineral production proposed	2385.15 tonnes	1868 tonnes	
3c	Recovery of saleable/usable mineral from ROM production	100%	100%	Low grade Mn ore Blended with high grade Mn ore
3d	Quantity of mineral reject generation	Nil	Nil	No mineral sub-grade was

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				generated
3e	Grade of mineral reject 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	Manual	ROM is being segregated manually.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No	No	
3j	Provision of drilling & blasting in mineral benches	Jackhammer drilling machine of 33 mm diameter proposed to be used & blasting is being carried out using ANFO with detonators.	Drilling & blasting operations has been carried out as per proposal.	
3k	Provision of mining machineries in mineral benches	Yes, proposed.	Using Combination of excavators and tippers for production and development.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3 meter height of OB benches proposed	Up to max 3m benches in OB was developed	
3m	Total area covered under excavation/pits	0.25 ha	0.23 ha	
3n	Ore to OB ratio for the pit/mine during the year	1:3.05	1: 1.77	
3o	Total area put in use under different heads at the end of year	Under Pit-0.25 ha Road- 0.01 ha	Under Pit- 0.40 ha Waste- 0.04 ha Road- 0.57 Others- 0.09 ha Reclaimed- 0.27	Out of 1.9 Ha., 1.5 Ha. has been reclaimed and rehabilitated.
3p	Production of ROM mineral during last five-year period, as applicable (in Metric Tonnes)	F.Y-2019-20: 3448 Metric Tonnes F.Y-2020-21: 3548 Metric Tonnes F.Y-2021-22: 2399 Metric Tonnes F.Y-2022-23: 2703 Metric Tonnes F.Y-2023-24: 2385	F.Y- 2019-20: 1253 Metric Tonnes F.Y- 2020-21: 1242 Metric Tonnes F.Y- 2021-22: 995 Metric Tonnes F.Y-2022-23: 1072 Metric Tonnes F.Y-2023-24: 1868	

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		Metric Tonnes	Metric Tonnes	
3q	General remarks of inspecting officer on method of mining etc.	Open cast mining method with Mechanised equipment like Excavator, Jackhammer drill has been employed.		

**4.0 Solid Waste Management-Dumping**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 36, 37)	Yes	Separate stacking of mineral and topsoil have been done.	
4b	Location of topsoil, OB & mineral reject dumps (Range in UTM/Local Coordinate/Plot No./Location)	In-between UTM co-ordinates  Topsoil: N2183784 to N2183811 and E241492 to E241526  Mineral/Ore: N2183772 to N2183792 and E241474 to E241524	Same was observed during inspection.	
4c	Number of dumps within lease area and outside lease area	Topsoil: 01 no.  Mineral/Ore: 01 no.  Waste/OB: 04 nos.	Topsoil: 01 no.  Mineral/Ore: 01 no.  Waste/OB: 04 nos.	Government canal dump observed around lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 14)	Proposed beyond ultimate pit limit.	All the dumps are situated beyond ultimate pit limit area	
4e	Number of active & alive dumps	04 nos.	04 nos.	
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps stabilised	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along	No proposal	Nil	

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	dumps are there			
4i	Length of Retaining wall or garland drain all along dump	No proposal	Nil	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer	Waste and the topsoil have been utilized for backfilling and topsoil spread over backfilled pit for plantation.		

**5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Concurrent backfilling has been proposed in the approved document.	Same was observed during inspection	
5b	Area under backfilling of mined out area	0.25 ha	0.23 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	Yes, top soil is to be spread in a proper manner over backfilled area so that the land is restored to its near to the original condition	Top soil generated during the year is 2370 m <sup>3</sup> , during the year reclamation of 0.27 ha has been carried out	
5d	Total area fully reclaimed & rehabilitated	0.28 ha	0.27 ha area has been reclaimed.	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Nil.		

**6.0 Progressive Mine Closure Plan**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23. Details should be given in the format as given in Annexure-20.	To be submitted up to 1 <sup>st</sup> July of next proposed year.	Submitted in on 26-06-2024	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch &	Area proposed for (i) rehabilitation- 0.28 ha (ii) Afforestation- Nil (iii) No. of saplings planted-125 (iv) cost incurred-	Work carried out- (i) rehabilitation- 0.28 ha (ii) Afforestation- Nil (iii) No. of saplings planted- 125	

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	care during the year	50000/.		
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Voids available for backfilling (L X B X D) 0.25 ha ii) Void filled by waste/tailings -0.25 ha iii) Afforestation on the backfilled area - 0 iv) Rehabilitation by making water reservoir -0 v) Any other specific means – Reclamation & rehabilitation of land by levelling with top soil & make it suitable for cultivation- 0.28 ha	i) Voids available for backfilling (L X B X D) 0.23 ha ii) Void filled by waste/tailings -0.23 ha iii) Afforestation on the backfilled area - 0 iv) Rehabilitation by making water reservoir -0 v) Any other specific means – Reclamation & rehabilitation of land by levelling with top soil & make it suitable for cultivation- 0.27 ha	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No proposal	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Monitoring is to be done	Monitoring is being carried out	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Nil.		

**7.0 Mineral Conservation**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Entire ROM generated is to be sorted and sized manually & dispatched	Sizing, sorting & grading work is being carried out	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Grade wise sorting and sizing is to be carried out manually to obtain required grade	Sorting & sizing carried out manually	

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7d	Any beneficiation process at mines	No proposal	nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	ROM generated is subject to sorting & sizing manually. Entire ROM generated is reported to have been dispatched.		

**8.0 Environment**

SN	Item	Proposals F.Y. 2023-24	Actual work F.Y. 2023-24	Remarks
8a	Separate removal and utilization of topsoil (Rule 36)	Top soil proposed to be removed and plate it separately for utilisation	Top soil is being utilized for restoration of land	
8b	Concurrent use or storage of topsoil	Proposal to restore the top soil temporarily and to be utilized for spreading over backfilled area	Top soil is being stacked separately and utilized over backfilled area	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Yes	Separate dump for overburden, waste has been done as per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	10626 tonnes/4250.4 m <sup>3</sup> waste was proposed to be backfilled	8287.5 tonne/ 3315 m <sup>3</sup> of waste generated was backfilled	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Mined out area is being backfilled by waste and levelled. The top soil to be spread on top layer and restore to ground level bring utilized.	Reclamation is being carried out as per approved proposal	
8f	Baseline information on existence of plantation & additional plantation done (Rule 44)	Proposal for green belt development along boundary pillar C-13 to C14 with 125 plant.	Plantation work has been carried out.	
8g	Survival rate	50%	50%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling arrangement to be done to suppress the dust generation	Water sprinkling arrangement are observed	
8i	General remarks of inspecting officer on aesthetic beauty in and	Mined out area is being backfilled, levelled and make it suitable for agriculture.		



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around mines are	
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**9.0 Compliance of Rule 45**

S. N.	Item	COMMENTS	Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted for – Nov 2024 A.R. submitted for Year 2023-24	Return are submitted in time

S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Pradeep Pimpalshende Geologist- Balasaheb Suryavanshi	Mining engineer & Geologist were present during inspection	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under Current Working 0.40 ha Reclaimed 1.5 ha Waste disposal 0.04 Road 0.57 ha Other 0.09 ha	Same was observed during inspection	
9d	Scrutiny of Annual return on Afforestation	125 plants	Near about 50 plants observed.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Mineral reject – nil	The details furnished in the annual returns are found correct	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Below 25% Mn 66.32 tonnes Between 25 to 35% Mn 388.499 tons	-do-	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Below 25% Mn Rs 3708 Between 25 to 35% Mn - Rs 7113.43 Production cost -Rs 3362	-do-	
9i	Scrutiny of Annual return on fixed assets	Rs 900000/.	Rs 900000/.	
9k	Scrutiny of Annual return on mining machineries	Air Compressor (25cum/min)-1, Back hoe – 0.9cum capacity & Tipper 10.0 cum	Air Compressor (25cum/min)-1, Back hoe – 0.9cum capacity & Tipper 10.0 cum	Verified from logbooks.

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out: - **Rule 31(4), 34A (1) of MCDR,2017**

**Ejaj Ahmad Khan**  
(Assistant Mining Geologist)