

**MCDR INSPECTION REPORT**

|   |                                             |                            |
|---|---------------------------------------------|----------------------------|
| 1 | Name of Inspecting officer:                 | <b>Madhavrao Sabre</b>     |
| 2 | Designation                                 | Senior Mining Geologist    |
| 3 | Accompanying mine official with Designation | Shri Rajesh Rawal , Agent, |
| 4 | Date of Inspection                          | 09/11/2022                 |
| 5 | Previous Inspection date                    | 06/11/2021                 |

**Part-I: General**

| S.No | Particulars                                                                                                                                                   | Details                                                                                                                        |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 1    | Name of the Mine                                                                                                                                              | <b>Jam Manganese Ore Mine</b>                                                                                                  |
| 2    | Total Lease Area (Ha) with breakup of Non-forest and forest land                                                                                              | 8.097 Ha (Non forest)                                                                                                          |
| 3    | Mine code                                                                                                                                                     | 40MPR01043                                                                                                                     |
| 4    | IBM Registration Number under rule 45 of MCDR,1988                                                                                                            | IBM/6485/2011                                                                                                                  |
| 5    | Name of the lessee, Address, Phone, email and fax number                                                                                                      | Ms. Namrata Dilip upadhyaya<br>WN.6, tirodi, Katangi, <a href="mailto:nvstrd@gmail.com">nvstrd@gmail.com</a> ,<br>9424606081   |
| 6    | Village                                                                                                                                                       | Jam                                                                                                                            |
| 7    | Taluka/Mandal                                                                                                                                                 | Katangi                                                                                                                        |
| 8    | District                                                                                                                                                      | Balaghat                                                                                                                       |
| 9    | Pin code                                                                                                                                                      | 481449                                                                                                                         |
| 10   | State                                                                                                                                                         | Madhya Pradesh                                                                                                                 |
| 11   | Post Office                                                                                                                                                   | Katangi                                                                                                                        |
| 12   | Nearest Police Station                                                                                                                                        | Katangi                                                                                                                        |
| 13   | Nearest Railway Station                                                                                                                                       | Katangi                                                                                                                        |
| 14   | Date of opening of Mine                                                                                                                                       | 07/11/2022                                                                                                                     |
| 15   | Name of the Nominated Owner with Address, phone, email, fax number and date of appointment                                                                    | Ms. Namrata Dilip upadhyaya<br>WN.6, tirodi, Katangi, <a href="mailto:nvstrd@gmail.com">nvstrd@gmail.com</a> ,<br>9893650171 , |
| 16   | Name of the Mine Agent with Address, phone, email, fax number and date of appointment                                                                         | Rajesh Rawal, <a href="mailto:rajeshrawal09@gmail.com">rajeshrawal09@gmail.com</a> ,<br>7869467938                             |
| 17   | Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines                                                              | Shri AN Mishra                                                                                                                 |
| 18   | Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine                    | Shri Yogesh Thakre, BE Mining                                                                                                  |
| 19   | Whether Geologist (with details of appointment) and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44. | Shri Shivnarayan Banshkar                                                                                                      |
| 20   | Date of Approval of Mine Plan/Modified Mine Plan with five-year period and specific condition in approval letter, if any.                                     | Modified Mining plan approved vide No. E 2246 MCDR-MPC0Mn/3/2022-JBP-IBM_RO_JBP dated 15/05/2023                               |
| 21   | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.                      |                                                                                                                                |

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|----|-----------------------------------------------------|----------------------------------------------------------------------------------|
| 22 | Mineral(s) granted in lease and approved for Mining | Manganese Ore                                                                    |
| 23 | Method of Mining (Opencast, Underground)            | Opencast (for reporting year 2021-22), U/G mining is proposed from 22-23 onwards |
| 24 | Category (Fully Mechanized, Others or Manual)       | Mechanised.                                                                      |
| 25 | Captive/Non-Captive                                 | Non Captive.                                                                     |

**Details about Mining Plan/ Review of Mining Plan etc**

|                                                             |   |                                                                                                  |
|-------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------|
| a) Letter No. and date of approval of mining plan           | : | Modified Mining plan approved vide No. E 2246 MCDR-MPC0Mn/3/2022-JBP-IBM_RO_JBP dated 15/05/2023 |
| b) Letter No. and date of approval of review of mining plan | : | -                                                                                                |
| c) Condition while approving the MP/ RMP/ modification      | : | -                                                                                                |
| d) Period of mining plan/ mining scheme in force :          | : | 2023-24 to 2025-26 with validity up to 31/03/2026                                                |

**PART III-MCDR Report details.**

1. **Scientific Mining:** Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

**Exploration**

| S.N. | Item                                                                              | Proposals                                               | Actual Work                                                          | Remarks           |
|------|-----------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------|-------------------|
| 1a   | Backlog of previous year (before 2021-22)                                         | Nil                                                     | NA                                                                   |                   |
| 1b   | Exploration over lease area for Geological axis 1 or 2 (for 2021-22)              | 05 core boreholes were proposed                         | Nil exploration done                                                 | Violation pointed |
| 1c   | Exploration Agency & Expenditure in Lakh Rupees during the year (for 2021-22)     | Yes                                                     | Nil                                                                  | -                 |
| 1d   | Balance area to be explored to bring the Geological axis in 1 or 2. (for 2021-22) | NA                                                      | 3.00 Ha                                                              | -                 |
| 1e   | Balance reserves as on 01.04.2022                                                 | -                                                       | 111-19758 T<br>211- 3591 T<br>332- 24381 T<br>Total resources 47730T |                   |
| 1f   | General remarks of Inspecting officer on geology, exploration etc.                | Proposed exploration not taken up so violation pointed. |                                                                      |                   |

**2. Development (FY 2021-22)**

| S.N. | Item                                                         | Proposals                                              | Actual Work                                            | Remarks |
|------|--------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------|---------|
| 2a   | Location of Development w.r.t. lease area                    | In pit 2 (N 2406040 to 2405945 and E 384310 to 384480) | In pit 2 (N 2406040 to 2405945 and E 384310 to 384480) |         |
| 2b   | Separate benches in topsoil overburden and mineral (Rule 15) | Yes                                                    | Yes                                                    |         |
| 2c   | Stripping ratio or ore to OB ratio                           | 1:22                                                   | 1:23                                                   |         |
| 2d   | Quantity of topsoil generation in m3                         | Nil                                                    | Nil                                                    |         |
| 2e   | Quantity of overburden                                       | 15397                                                  | 15397 cum of OB generated                              |         |

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|    |                                                                                        |     |  |  |
|----|----------------------------------------------------------------------------------------|-----|--|--|
|    | generation in m3                                                                       |     |  |  |
| 2f | General remarks of Inspecting officer on development of pit w.r.t type of deposit etc. | Nil |  |  |

**3. Exploitation FY 2021-22**

| S. N. | Item                                                                                                 | Proposals                  | Actual Work                                                                                                                                                                                                      | Remarks |
|-------|------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 3a    | Number of pits proposed for production                                                               | 01                         | During the RY production proposed from pit no. 2                                                                                                                                                                 |         |
| 3b    | Quantity of ROM mineral production proposed                                                          | 3059 Tonnes                | 3050 Tonnes.                                                                                                                                                                                                     |         |
| 3c    | Recovery of Salable/usable minerals from ROM production                                              | 90%                        | 100 % recovery                                                                                                                                                                                                   |         |
| 3d    | Quantity of mineral reject generation                                                                | 5 % of Total ROM i.e 153 T | Nil                                                                                                                                                                                                              |         |
| 3e    | Grade of mineral reject generation and threshold value declared                                      | Nil                        | NA                                                                                                                                                                                                               |         |
| 3f    | Quantity of sub-grade mineral generation                                                             | Nil                        | Nil                                                                                                                                                                                                              |         |
| 3g    | Grade of sub-grade mineral generation                                                                | Nil                        | Nil                                                                                                                                                                                                              |         |
| 3h    | Manual/Mechanized method adopted for segregation from ROM                                            | Manual                     | Manual                                                                                                                                                                                                           |         |
| 3i    | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject          | Nil                        | Nil                                                                                                                                                                                                              |         |
| 3j    | Provision of drilling & blasting in mineral benches                                                  | Yes                        | 1.65m hole in ore with 32 mm dia spacing 1.5 m. slurry explosives used each cartridge weighs 125 gms.                                                                                                            |         |
| 3k    | Provision of mining machineries in mineral benches                                                   | Yes                        | Hydraulic excavators of 1.5 m3 capacity, drilling machine : jack hammer ,                                                                                                                                        |         |
| 3l    | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Yes                        | Yes                                                                                                                                                                                                              |         |
| 3m    | Total area covered under excavation /pits (Ha.)                                                      | Yes                        | 3.62 Ha                                                                                                                                                                                                          |         |
| 3n    | Ore to OB ratio for the pit/mine during the year                                                     | 1.22                       | 1:23                                                                                                                                                                                                             |         |
| 3o    | Total area put in use under different heads at the end of year                                       | -                          | Area under Mining: 3.642 Ha<br>Under dumps : 3.1269 Ha<br>Mineral storage : 0.1152 Ha<br>Infrastructure : 0.0099 Ha<br>Roads : 0.4367 Ha<br>Plantation : 0.1948 Ha<br>Rejects stack : 0.0162 Ha<br>Total 7.41 Ha |         |

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|    |                                                                        |                                                                                                        |                                                                                                      |  |
|----|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|
| 3p | Production of ROM mineral during last five-years period, as Applicable | 2017-18 5455T<br>2018-19 5315 T<br>2019-20 5315 T<br>2020-21 4980 T<br>2021-22 3059 T<br>2022-23 254 T | 2017-18 4800T<br>2018-19 4000 T<br>2019-20 3800 T<br>2020-21 4800 T<br>2021-22 3050 T<br>2022-23 Nil |  |
| 3q | General remarks of inspecting officer on method of mining etc.         | Proposal furnished in Plan for production achieved.                                                    |                                                                                                      |  |

**4. Solid Waste Management-Dumping (2021-22)**

| S.N. | Item                                                              | Proposals                                                      | Actual Work                                                               | Remarks            |
|------|-------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------|--------------------|
| 4a   | Separate dumping of topsoil, OB & mineral reject (Rule 32,33)     | Yes for OB and MR                                              | Done                                                                      |                    |
| 4b   | Location of topsoil, OB & mineral reject dumps                    | OB : N 2405810 to 2405760, E 384675 to 384593                  | Done as per proposal.                                                     |                    |
| 4c   | Number of Dumps within lease area and outside lease area          | 01 within lease area.                                          | At one place dumping is done in 7.5 m barrier and outside lease boundary. | Violation pointed. |
| 4d   | Location of Dumps w.r.t. ultimate pit limit (Rule 16)             | Out side UPL                                                   | Out side UPL                                                              |                    |
| 4e   | Number of Active & Alive dumps                                    | 01                                                             | 01                                                                        |                    |
| 4f   | Number of dead dumps                                              | 02                                                             | 02                                                                        |                    |
| 4g   | Number of dumps established                                       | -                                                              | During reporting year no new dump established.                            |                    |
| 4h   | Whether Retaining wall or garland drain all along dumps are there | Not Proposed                                                   | Yes garland drain is all along the dumps.                                 |                    |
| 4i   | Length of Retaining wall or garland drain all along dump          | Not Proposed                                                   | NA                                                                        |                    |
| 4j   | Number of settling ponds                                          | Not Proposed                                                   | NA                                                                        |                    |
| 4k   | Specific comments of inspecting officer on waste dump management  | At one place dump was outside the lease, so violation pointed. |                                                                           |                    |

**5. Solid Waste Management-Backfilling (FY 2021-22)**

| S.N. | Item                                                                                         | Proposals                                      | Actual Work                   | Remarks |
|------|----------------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------|---------|
| 5a   | Status on part or full extraction of mineral from mined out area before starting backfilling | Yes                                            | Yes mineral will be extracted |         |
| 5b   | Area under backfilling of mined out area                                                     | Yes                                            | Not done in reporting year.   |         |
| 5c   | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)      | Not proposed                                   | NA                            |         |
| 5d   | Total area fully reclaimed & rehabilitated (Ha)                                              | Not proposed                                   | NA                            |         |
| 5e   | General remarks of inspecting officer on backfilling, reclamation etc                        | No backfilling done during the reporting year. |                               |         |

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**6. Progressive Mine Closure Plan(FY 2021-22)**

| S.N. | Item                                                                                                                                      | Proposals                             | Actual Work                                                                  | Remarks |
|------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------|---------|
| 6a   | Whether Annual report on PMCP submitted on time and correctly-Rule 23E (2). Details should be given in the format as given in Annexure-20 | Yes                                   | Submitted.                                                                   |         |
| 6b   | Area available for rehabilitation (Ha)                                                                                                    | Nil                                   | NA                                                                           |         |
| 6c   | Afforestation done (ha)                                                                                                                   | Yes                                   | 0.10 Ha                                                                      |         |
| 6d   | No. of saplings planted during the year                                                                                                   | -                                     | 200 saplings planted                                                         |         |
| 6e   | Cumulative no. of plants                                                                                                                  | -                                     | 1800 Nos                                                                     |         |
| 6f   | Any other specific method of rehabilitation                                                                                               | Nil                                   | NA                                                                           |         |
| 6g   | Cost incurred on watch & care during the year                                                                                             | Yes                                   | Rs 10000/- for saplings, plantation is within the lease so no watch and ward |         |
| 6h   | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L X B X D).                              | NA                                    | Not proposed in reporting year.                                              |         |
| 6i   | Compliance on reclamation and rehabilitation by backfilling (ii) Void filled by waste/tailings.                                           | NA                                    | Not proposed in reporting year.                                              |         |
| 6j   | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the backfilled area.                                   | NA                                    | Not proposed in reporting year. Plantation not done on backfilled area.      |         |
| 6k   | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir.                                | NA                                    | Nil                                                                          |         |
| 6l   | Compliance on reclamation and rehabilitation by backfilling (v) Any other specific means                                                  | NA                                    | Nil                                                                          |         |
| 6m   | Compliance of Rehabilitation of waste land within lease (i) Afforestation                                                                 | Yes                                   | 200 saplings planted on old dumps.                                           |         |
| 6n   | Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation                             | NA                                    | Plantation done on old waste dumps.                                          |         |
| 6o   | Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation                                                    | NA                                    | By plantation.                                                               |         |
| 6p   | Compliance of Environment monitoring (core zone & buffer zone)                                                                            | Yes                                   | Yes done regularly and all parameters are within prescribed limit.           |         |
| 6q   | General remarks of inspecting officer on PMCP compliance & progressive closer operations                                                  | 200 saplings planted during the year. |                                                                              |         |

**7. Mineral Conservation(FY 2022-23)**

| S.N. | Item                                       | Proposals | Actual Work               | Remarks |
|------|--------------------------------------------|-----------|---------------------------|---------|
| 7a   | ROM mineral dispatch or grade wise sorting | Yes       | Grade wise sorting within |         |

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|    |                                                                                      |                                                          |                                                                                   |  |
|----|--------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------|--|
|    | within lease area                                                                    |                                                          | the lease.                                                                        |  |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical                       | Manual                                                   | Manual                                                                            |  |
| 7c | Different grade of mineral sort out at mine                                          | Yes                                                      | Below 25% Mn<br>25% to below 35% Mn<br>35% to below 46% Mn<br>35% to below 46% Mn |  |
| 7d | Any beneficiation process at mines                                                   | Yes                                                      | Manual jigging and screening.                                                     |  |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | Grade wise sorting is done in the lease by manual means. |                                                                                   |  |

**8. Environment(FY 2022-23)**

| S.N. | Item                                                                                                        | Proposals                                                               | Actual Work                                    | Remarks |
|------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------|---------|
| 8a   | Separate removal and utilization of topsoil (Rule32)                                                        | NA                                                                      | Not proposed in reporting year                 |         |
| 8b   | Concurrent use or storage of topsoil                                                                        | NA                                                                      | Not proposed in reporting year                 |         |
| 8c   | Separate dumps for overburden waste rock, rejects and fines (Rule 33)                                       | Yes                                                                     | Done                                           |         |
| 8d   | Use of overburden, waste rock, rejects and fines dump for restoring the land to its original use            | Not proposed                                                            | NA                                             |         |
| 8e   | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Yes                                                                     | Backfilling of pit is proposed in coming year. |         |
| 8f   | Baseline information on existence of plantation & additional plantation done (Rule 41)                      | Yes                                                                     | Yes                                            |         |
| 8g   | Survival rate                                                                                               | Yes                                                                     | 50%                                            |         |
| 8h   | Water sprinkling on roads to control airborne dust                                                          | Yes                                                                     | Done                                           |         |
| 8i   | General remarks of inspecting officer on aesthetic beauty in and around mine area                           | Regular sprinkling of water on haul road is done. 200 saplings planted. |                                                |         |

**9. Compliance of Rule 45 (2022-23)**

| S.N. | Item                                                                                          | Comments                                                                                                                                                                                                        | Remarks           |
|------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 9a   | Status of submission of monthly and Annual returns                                            | Annual return of 2021-22 submitted on 30.06.2022                                                                                                                                                                |                   |
| 9b   | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Mining engineer: Yogesh Thakre<br>Geologist : Shivnarayan Banshkar                                                                                                                                              |                   |
| 9c   | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Area under Mining: 3.642 Ha<br>Under dumps : 3.1269 Ha<br>Mineral storage : 0.1152 Ha<br>Infrastructure : 0.0099 Ha<br>Roads : 0.4367 Ha<br>Plantation :0.1948 Ha<br>Rejects stack : 0.0162 Ha<br>Total 7.41 Ha |                   |
| 9d   | Scrutiny of Annual return on afforestation                                                    | Yes, 200 saplings planted with 50% survival rate.                                                                                                                                                               |                   |
| 9e   | Scrutiny of Annual return on mineral reject generation (Grade & Quantity)                     | Nil                                                                                                                                                                                                             |                   |
| 9f   | Scrutiny of Annual return on ROM stock and/or grade ore                                       | Yes, Closing stock : 2924 T                                                                                                                                                                                     |                   |
| 9g   | Scrutiny of Annual return on sale value, Ex. Mine price & production                          | Grades                                                                                                                                                                                                          | Ex Mine price     |
|      |                                                                                               | Below 25% Mn                                                                                                                                                                                                    | 3077.00 Per tonne |

## MCDR-MiFLOMn/8/2022-JBP-IBM\_RO\_JBP

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|    |                                                 |                                                                                               |                    |  |
|----|-------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------|--|
|    | costs                                           | 25% to below 35% Mn                                                                           | 8622.00 Per tonne  |  |
|    |                                                 | 35% to below 46% Mn                                                                           | 14233.00 Per tonne |  |
|    |                                                 | 35% to below 46% Mn                                                                           | 16528.00 Per tonne |  |
| 9i | Scrutiny of Annual return on Fixed assets       | Value of Fixed Assets (in ₹) 18595000/-                                                       |                    |  |
| 9k | Scrutiny of Annual return on mining Machineries | DUMPER 16.000 TONNE - 06<br>SHOVEL (HYDRAULIC) 0.950CUM- 02<br>FRONT END LOADER 0.500 Cum -01 |                    |  |