

## MCDR INSPECTION REPORT

**General**

| S. N. | Particulars  | Details   |
|-------|--|---|
| 1     | Name of the Mine   | Deojhar Iron Ore Mines  |
| 2     | Total Lease Area (Ha) with breakup of Non-forest and forest land   | 34.365 Ha (Reserve Forest)  |
| 3     | Mine Code  | 30ORI08069  |
| 4     | IBM Registration Number under rule 45 of MCDR, 1988  | IBM/5262/2011   |
| 5     | Name of the lessee, Address, phone, email and fax number   | M/S Tarini Minerals Pvt Ltd   |
| 6     | Village  | Deojhar   |
| 7     | Taluka/Mandal  | Barbil  |
| 8     | District   | Keonjhar  |
| 9     | Pincode  | 758038  |
| 10    | State  | Odisha  |
| 11    | Post office  | Deojhar   |
| 12    | Nearest police station   | Belaipada   |
| 13    | Nearest Railway station  | Deojhar   |
| 14    | Date of Grant of Mining Lease  | 05.09.1994  |
| 15    | Date of Execution  | 05.09.1994  |
| 16    | Date of opening of Mine  | 14.09.1995  |
| 17    | Date of first Renewal, if applicable and its period & expiry   | 12.04.2016  |
| 18    | Date of second Renewal, if applicable and its period & expiry  | NA  |
| 19    | Date of submission of renewal application if Mining Operations are continuing under deemed extension                                   | NA  |
| 20    | Name of the Nominated Owner with Address, phone, email, fax number and date of appointment   | Sri D.R.Patnaik ,<br>A/6,Commercial Estate,Civil<br>Township,Rourkela,<br>Email-diom.tmpl@gmail.com     |
| 21    | Name of the Mine Agent with Address, phone, email, fax number and date of appointment  | Nil   |
| 22    | Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines                                      | Umesh Chandra Mohanta,<br>Email-diom.tmpl@gmail.com<br>Phone-8895411438,<br>DOA-25.12.2020              |
| 23    | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Shankar Ghosh(Diploma in<br>Mining)<br>Email-diom.tmpl@gmail.com<br>Phone-8210690347,<br>DOA-01.01.2017 |
| 24    | Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine       | Alok Kumar Rout, (Msc.Geology)<br>DOA-10.11.2021.   |
| 25    | Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.           | Yes   |
| 26    | Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific  | Dated:25.01.2019 ,<br>Period:2019-20 to 2023-24   |

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|    |   |   |
|----|---|---|
| 27 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any. | MP/FM/39-ORI/BHU/2018-19/2501,<br>Dated:25.01.2019,<br>Period:2019-20 to 2023-24. |
| 28 | Mineral(s) granted in lease and proved for mining   | Iron Ore  |
| 29 | Method of Mining(Open cast, Underground)  | Open cast   |
| 30 | Category (Fully Mechanised, Others or Manual)   | Fully Mechanized  |
| 31 | Captive/Non Captive   | Non-Captive   |

**Exploration**

| S.N. | Item   | Proposals for,2022-23  | Actual work during 2022-23 | Remark                                   |
|------|--|--|----------------------------|--|
| 1a   | Backlog of previous year   | Nil  | Nil                        |  |
| 1b   | Exploration over lease area for Geological axis 1 or 2.            | Nil  | Nil                        | All the area has been explored under G-1 |
| 1c   | Exploration Agency & Expenditure in lakh Rupees during the year    | No proposal  | Nil                        |  |
| 1d   | Balance area to be explored to bring Geological axis in 1 or 2     | Nil  | Nil                        | All the area has been explored under G-1 |
| 1e   | Balance reserves as on 31.03.2023                                  | 436990 MT(As on 01.04.2022)  | 360900 MT                  | As per Annual return 2022-223            |
| 1f   | General remarks of inspecting officer on geology, exploration etc. | The deposits of Deojhar Iron Mines form a part of eastern limb of Bonai Synclinorium. The lease area represents highest altitude of 675m and lowest altitude of 150m. The complete lease area has been explored under G-1. |                            |  |

**Development**

| S.N. | Item  | Proposals for,2022-23                       | Actual work during 2022-23                | Remark                                 |
|------|---|---|---|--|
| 2a   | Location of development w.r.t. lease area                     | N-2444975 to 2445505 & E-341790 to 342041   | N-2444975 to 2445505 & E-341790 to 342041 |  |
| 2b   | Separate benches in topsoil, overburden and mineral (Rule 15) | Separate Benches in Mineral and OB proposed | Separate Benches in Mineral and OB made   |  |
| 2c   | Stripping ratio or ore to OB ratio                            | 1 : 0.95                                    | 1 : 0.47                                  | Significant change due to less generat |

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|  |                                    |  |  |              |
|--|------------------------------------|--|--|--------------|
|  | MCDR-MiFLOFE/3/2023-BBS-IBM_RO_BBS |  |  | ion of<br>OB |
|--|------------------------------------|--|--|--------------|

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|    |  |  |            |                       |
|----|--|--|------------|-----------------------|
| 2d | Quantity of topsoil generation in m3   | No proposal of Top Soil Generation during reporting year   | Nil        |                       |
| 2e | Quantity of overburden generation in m3  | 48028 Cu.m   | 36300 Cu.m | Less generation of OB |
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc | The mine working is confined to 1 pit only. The work is being broadly carried out as per proposals in the Review of MP |            |                       |

**EXPLOITATION**

| N. | Item  | Proposals for,2022-23                      | Actual work during 2022-23                | Remark  |
|----|---|--|---|---|
| 3a | Number of pits proposed for production                          | 01   | 01  | Pit Dimension is 400m(L) x250m(B)x90m(D)  |
| 3b | Quantity of ROM mineral production proposed                     | 153108 MT                                  | 76090 MT                                  | Violation of Rule 11(1) has been pointed out to the lessee vide letter dated 14/02/2024 |
| 3c | Recovery of salable/usable mineral from ROM production          | 76238 MT                                   | 76090 MT                                  |   |
| 3d | Quantity of mineral reject generation                           | 24400 MT                                   | 0 MT                                      |   |
| 3e | Grade of mineral reject generation and threshold value declared | +45 % -55 % Fe<br>Threshold limit-45% Fe   | +45 % -55 % Fe<br>Threshold limit-45% Fe  |   |
| 3f | Quantity of sub-grade mineral generation                        | 23850 MT                                   | 29500 MT                                  | Recovery from Dump  |
| 3g | Grade of sub-grade mineral generation                           | <55% Fe                                    | <55% Fe                                   |   |
| 3h | Manual / Mechanised method adopted for segregating from ROM     | Mechanised method proposed for segregating | Mechanised method adopted for segregating |   |

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|    |   | ROM         | Iron ROM |  |
|----|---|-------------|----------|--|
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | No proposal | Nil      |  |

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|     |  |  |   |  |
|-----|--|--|---|--|
| 43j | Provision of drilling & blasting in mineral benches  | Drilling and Blasting proposed in mineral benches  | Drilling and blasting was carried out in mineral benches.                               | Dia of DTH: 105 Mtrs.<br>Spacing: 3.5m<br>Burden:3 .0m   |
| 3k  | Provision of mining machineries in mineral benches   | Use of HEMMs is proposed in Mineral Benches.   | Mechanized O/C mining is carried out with engaging HEMMs in mineral benches             | Mining is carried out by mechanized open cast mining in combination of backhoe( 2.10 Cu.m) and Dumper (30 tonne)with deep hole drilling and blasting |
| 3l  | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Height of the benches proposed to be maintained as 10 meter with width of 10 m                     | Height of the benches maintained as 8-10 meter with width of 8-10 m.                    |  |
| 3m  | Total area covered under excavation/pits   | 9.282 Ha   | 8.998 Ha  |  |
| 3n  | Ore to OB ratio for the pit/mine during the year   | 1 : 0.95   | 1 : 0.47  | Significant change   |
| 3o  | Total area put in use under different heads at the end of year (ha)                                  | Mining-9.282<br>Mineral Storage-6.245<br>Roads-1.5<br>Infrastructure-0.311<br>Waste Disposal-2.527 | Mining-8.998<br>Mineral Storage-6.1026<br>Infrastructure-1.811<br>Waste Disposal -2.527 |  |

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|    |  |  |   |  |
|----|--|--|---|--|
|    | Production of ROM mineral during last six-year period, as applicable (MT)<br>2016-17<br>2017-18<br>2018-19<br>2019-20<br>2020-21<br>2021-22<br>2022-23 | 2016-17-1499852.75 MT<br>2017-18-862906 MT<br>2018-19-500398.25 MT<br>2019-20-71678 MT<br>2020-21-81225 MT<br>2021-22-81700 MT<br>2022-23 - 100638 MT  | 2016-17 - 1460095 MT<br>2017-18 - 862715 MT<br>2018-19 - 400535 MT<br>2019-20 -27388 MT<br>2020-21 -80770 MT<br>2021-22 -62700 MT<br>2022-23 - 76090 MT |  |
| 3q | General remarks of inspecting officer on method of   | Open-cast fully mechanised mining method with Backhoe-Dumper combination, with 8-10 m high and width up to 8-10m and deep drilling and blasting is being broadly carried as per approved review of MP. |   |  |

**Solid Waste management-Dumping**

| S. N. | Item  | Proposals for,2022-23   | Actual work during 2022-23                            | Remark      |
|-------|---|---|---|-------------|
| 4a    | Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)    | Top soil –Nil<br>OB-Yes<br>Mineral Reject-Yes   | Top soil –Nil<br>OB-Yes<br>Mineral Reject-Nil         |             |
| 4b    | Location of topsoil, OB & mineral reject dumps                    | N-244430 to 244625<br>E- 341735 to 341941   | N-244430 to 244625<br>E- 341735 to 341941             | OB dump     |
| 4c    | Number of dumps within lease area and outside lease area          | Within lease area - 1<br>Outside lease area -1  | Within lease area - 1<br>Outside lease area -1        | OB dump     |
| 4d    | Location of dumps w.r.t. ultimate pit limit                       | N-244430 to 244625<br>E- 341735 to 341941   | N-2444315-2444625<br>E- 341650-341900                 |             |
| 4e    | Number of active & alive dumps                                    | 01  | 01  |             |
| 4f    | Number of dead dumps  | Nil   | Nil   |             |
| 4g    | Number of dumps stabilised  | Nil   | Nil   |             |
| 4h    | Whether Retaining wall or garland drain all along dumps are there | Retaining wall and garland drain proposed all along dumps   | Retaining wall and garland drain made all along dumps | Maintenance |
| 4i    | Length of Retaining wall or garland drain all along dump          | Retaining wall – 400 m<br>Garland drain – 400m  | Retaining wall – 400m<br>Garland drain -400m          | Maintenance |
| 4j    | Number of settling ponds  | 2   | 2   | Maintenance |
| 4k    | Specific comments of inspecting officer on waste dump management  | Overburden, mineral and mineral reject management is broadly as per proposal are being carried out as per the approved proposals. |   |             |





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**Solid Waste management-Backfilling**

| S. N. | Item   | Proposals for,2022-23   | Actual work during 2022-23 | Remark |
|-------|--|---|----------------------------|--------|
| 5a    | Status on part or full extraction of mineral from mined out area before starting backfilling | Fully extracted   | Fully extracted            |        |
| 5b    | Area under backfilling of mined out area   | 0.20 Ha   | 0.20 Ha                    |        |
| 5c    | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)      | No Top Soil Generation Proposed during reporting year                   | Not Applicable             |        |
| 5d    | Total area fully reclaimed & rehabilitated   | None proposed   | Nil                        |        |
| 5e    | General remarks of inspecting officer on backfilling, reclamation etc                        | Backfilling is carried out as per the proposals for the reporting year. |                            |        |

**Progressive Mine Closure Plan**

| N. | Item  | Proposals for,2022-23   | Actual work during 2022-23                 | Remark                                |
|----|---|---|--|---------------------------------------|
| 6a | Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).   | Annual report on PMCP to be submitted on 1st July every year. | PMCP Report Submitted                      | Submitted on dated 30/06/2023         |
| 6b | Management of worked/mined out benches<br>i) Area available for rehabilitation (ha)<br>ii) Afforestation done (ha)<br>iii) No. of saplings planted during the year<br>iv) Cumulative no. of plants<br>v) Any other specific method of rehabilitation<br>vi) Cost incurred on watch & care during the year | 0.20<br>0.40<br>500<br>1500<br>Plantation<br>----             | 0.20<br>0.40<br>700<br>19386<br>Plantation | Within Lease-600<br>Outside Lease:100 |
| 6c | Compliance on reclamation and rehabilitation by backfilling<br>i) Voids available for backfilling (L X B X D)<br>ii) Void filled by waste/tailings<br>iii) Afforestation on the backfilled area<br>iv) Rehabilitation by making water reservoir<br>v) Any other specific means                            | 6.55<br>0.20<br>Nil<br>Nil                                    | 6.55<br>0.20<br>Nil<br>Nil                 |                                       |

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|    |   |   |                                      |   |
|----|---|---|--------------------------------------|---|
| 4d | Compliance of Rehabilitation of waste land within lease<br>i) Afforestation<br>ii) Area rehabilitated (ha)<br>iii) Method of rehabilitation | Nil<br>0.40<br>Plantation   | Nil<br>0.40<br>Plantation            |   |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone)  | Environmental monitoring in Core zone and buffer zone proposed as per MOEFCC and SPCB guidelines  | Monitoring of Noise, Water etc done. | Env. parameters were observed to be within the permissible limit. |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive closure operations   | The lessee has done adequate plantation and is regularly monitoring the Environmental Parameters. |                                      |   |

### Mineral Conservation

| S. N. | Item   | Proposals for,2022-23                                       | Actual work during 2022-23                           | Remark |
|-------|--|---|--|--------|
| 7a    | ROM Mineral dispatch or grade-wise sorting within lease area                         | Grade-wise Mineral sorting within lease area proposed       | Grade wise sorting done                              |        |
| 7b    | Method of grade-wise mineral sorting i.e. manual or mechanical                       | Mechanized method of grade-wise mineral sorting proposed    | Mechanized method of grade-wise mineral sorting done |        |
| 7c    | Different grade of mineral sorted out at mines                                       | +58 Fe<br>45-58% Fe   | +58 Fe<br>45-58% Fe                                  |        |
| 7d    | Any beneficiation process at mines   | No Beneficiation process proposed                           | Not Applicable                                       |        |
| 7e    | General remarks of inspecting officer on Mineral conservation & beneficiation issues | No Beneficiation process done except screening and sorting. |  |        |

### Environment

| S. N. | Item  | Proposals for,2022-23                                 | Actual work during 2022-23 | Remark |
|-------|---|---|----------------------------|--------|
| 8a    | Separate removal and utilization of topsoil (Rule 36) | No Top Soil Generation during reporting year proposed | None                       |        |
| 8b    | Concurrent use or storage of topsoil                  | Not Applicable  | Not Applicable             |        |
| 8c    | Separate dumps for overburden, waste rock,            | Separate Dumps for OB                                 | Separate Dumps for OB and  |        |

rejects and fines (Rule 37)

and Mineral  
Rejects  
proposed

Mineral - Rejects  
made

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|              |    |   |  |  |  |
|--------------|----|---|--|--|--|
| 1/25696/2024 | 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use           | No proposal  | Not Done   |  |
|              | 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No   | No   |  |
|              | 8f | Baseline information on existence of plantation & additional Plantation done                                | 500  | 700  |  |
|              | 8h | Water sprinkling on roads to control airborne dust  | Water sprinkling proposed on haul roads to suppress the dust.  | Water tankers are dedicated used for water sprinkling on roads to control airborne dust. | 1 water tanker having capacity of 8 KLD deployed for suppressing dust. |
|              | 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area                          | Aesthetic beauty in & around mines area is well maintained. The lessee is implementing the PMCP proposal and has carried out adequate plantation. Sprinkling of water on Haul roads and transport roads using water tanker is done to suppress the dust. |  |  |

#### Compliance of Rule 45

| S. N. | Item  | COMMENTS  |  | Remarks  |
|-------|---|---|--|--|
| 9a    | Status of submission of Monthly and Annual returns  | M.R. Submitted upto December - 2023<br>A.R. Submitted upto 2022-23  |  | AR 2023-24 submitted on 30 <sup>th</sup> June, 2023. |
| S. N. | Item  | Details given in A.R. for the year 2022-23  | Observation of I/Officer   | Remarks  |
| 9b    | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager           | Mine Manager-UC Mohanta<br>Mining Engineer-UC Mohanta<br>Mining Geologist-Alok Kumar Rout                         | Mine Manager-None<br>Mining Engineer-None<br>Mining Geologist-Alok Kumar Rout                        |  |
| 9c    | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Mining-9.282 Ha<br>Mineral Storage-6.245 Ha<br>Roads-1.5 Ha<br>Infrastructure-0.311 Ha<br>Waste Disposal-2.527 Ha | Mining-8.998 Ha<br>Mineral Storage-6.1026 Ha<br>Infrastructure-1.811 Ha<br>Waste Disposal - 2.527 Ha |  |
| 9d    | Scrutiny of Annual return on afforestation  | Inside ML-600<br>Outside ML-100   | Appears to be correct  |  |
| 9e    | Scrutiny of Annual return on  | No Mineral Reject   | Appears to   |  |

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|  | mineral reject generation<br>(Grade & quantity)          | generation                                  | be correct            |  |
|--|--|---|-----------------------|--|
|  | Scrutiny of Annual return on ROM stock and/or graded ore | Total ROM(OC Workings+Dump Workings)-105500 | Appears to be correct |  |

|               |   |  |   |  |
|---------------|---|--|---|--|
| I/25696/2024g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost | Fines:<br>51-below 55% Fe-Rs1723.25<br>55-below 58% Fe-Rs 1694.99<br>58 to below 60% Fe-Rs 1886.72<br>62 to below 65 % Fe-Rs 5079<br>CLO:<br>Below 62% Fe-Rs 3281.93<br>62 to below 65% Fe-Rs 7474 | Appears to be correct   |  |
| 9i            | Scrutiny of Annual return on fixed assets                                 | Rs 307562896 including land, plant etc   | Appears to be correct   |  |
| 9k            | Scrutiny of Annual return on mining machineries                           | Back Hoe-01<br>Truck-02<br>Water Tanker-01   | Back Hoe-01<br>Truck-02<br>Water Tanker-01<br>Mobile<br>Crusher-01<br>Dumper-02 |  |